Financial Stability Review

SEPTEMBER 2010

Contents

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Overview

In the period since the previous *Financial Stability Review* the health of the major international banks has mostly improved, despite a significant amount of uncertainty in financial markets. In aggregate, loan losses of banks in the major economies have fallen, and banks have recorded improvements in profitability after the heavy losses incurred in 2008 and the first half of 2009.

While these developments have been encouraging, there remain important areas of uncertainty in global markets. During April and May, markets focused on concerns about euro area sovereign debt, and the potential for negative feedbacks through credit and funding markets. Financial prices reflected these concerns, with bank share prices generally declining at that time and risk spreads widening in a number of European markets. Subsequently, investor confidence was assisted by the European support packages and bank stress tests, though some country-specific concerns within the euro area have recently re-emerged. These events have influenced markets outside Europe and there have been periods of renewed nervousness in international funding markets.

In contrast to the North Atlantic region, financial conditions in the fast-growing Asian and Latin American economies have generally been quite buoyant over the recent period. As confidence returned in the post-crisis environment, these economies have experienced high rates of capital inflow along with strong conditions in their domestic credit and asset markets. In a number of cases, including China, this prompted policy actions to dampen credit growth and discourage excessive risk-taking in property markets.

The Australian financial system remains in relatively strong condition, as does the broader economy. The effects of the global crisis on the Australian economy and financial system were quite mild, and economic growth has now broadly returned to trend. This performance reflects several factors including the greater scope that existed for macroeconomic policy action in Australia to moderate the impact of the crisis, the comparatively strong balance sheets of the domestic banks in the period leading into the crisis, and the high exposure of the Australian economy to trade with the Asian region.

Indicators of the financial strength of Australian banks have generally continued to improve recently. In aggregate, Australia's banking system remained profitable during the crisis period, and profits have increased further in the latest half year. The flow of bad debt charges has generally peaked, while the stock of non-performing assets on banks' balance sheets appears to be stabilising at a level that remains low in comparison with previous cyclical experience. Loan impairments and losses have been concentrated mainly in lending to businesses, particularly for commercial property. There has been some upward drift in arrears rates on the housing portfolio, though these remain fairly low overall.

In the crisis-affected environment, Australian banks took significant actions to strengthen their balance sheets by raising new capital and through ongoing dividend reinvestment. In addition to strengthening their capital positions, banks have moved to increase the robustness of their liquidity positions by lengthening the term structure of their wholesale liabilities and increasing the share of funding from deposits. These moves should assist banks' ability to withstand periods of difficulty in global funding markets.

The financial position of the household and business sectors in Australia remains sound. Household incomes have been growing at a solid pace and unemployment has been declining. Households continue to exhibit a somewhat more cautious approach to debt than prior to the crisis, with welcome signs that the recent housing market strength led by first-home buyers has cooled. Notwithstanding recent cyclical variations, housing prices have shown little net change as a ratio to incomes over several years, following an earlier structural increase in this ratio associated with financial deregulation and the shift to a low inflation environment. Within the national housing market, there has been some significant regional variation, with market conditions particularly strong recently in Victoria.

In the business sector, there has been considerable deleveraging in the post-crisis period, bringing average debt-to-equity and interest-payment ratios to levels close to their lowest in three decades. Businesses have made use of both new equity issuance and strong internal funding during this process. While this shift in business funding was in part demand-driven, there was also a notable tightening of supply in 2008 and 2009; the availability of debt funding to businesses now appears to be improving, though credit availability for some sectors, including commercial property, remains quite constrained.

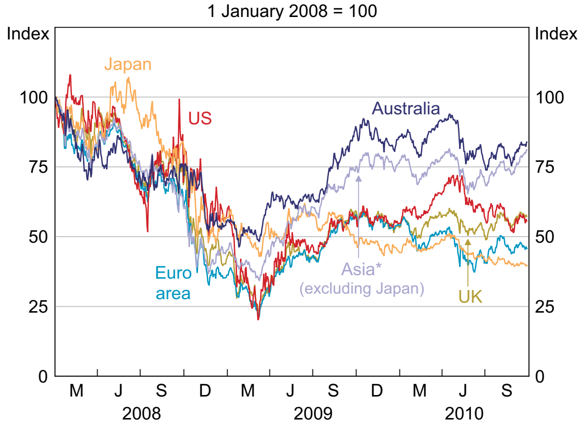
In summary, conditions in the global financial system have improved in a number of respects over the past half year, but significant uncertainties remain and there are important differences in conditions across the global economic regions. In the fast-growing economies of Asia and elsewhere, economic recoveries have been rapid and the focus of financial risk management is most likely to be on avoiding the problems of excessive buoyancy; in the North Atlantic region, economic and financial recoveries have to date been more hesitant, and the focus will remain on the resilience of recoveries to the withdrawal of policy stimulus. Australia's financial system, while not immune to swings in sentiment affecting global markets, has come through the disruptions to date in relatively good shape.

International work on financial regulatory reform is continuing through bodies including the Financial Stability Board and the Basel Committee on Banking Supervision (BCBS). A package of reforms designed to strengthen capital and liquidity standards in the global banking system is scheduled to be completed later in the year. Agreements on a number of elements of the package have already been announced. The general approach being adopted in the international arena is to aim for robust standards while allowing sufficient transition time to ensure that implementation is not unnecessarily disruptive. Australian banks are well placed to meet the proposed new capital standards, but application of the proposed new liquidity standard in Australia is not straightforward given the low levels of domestic government debt for banks to hold as liquid assets; the BCBS will incorporate scope for alternative arrangements in jurisdictions where this is the case. Australia continues to play an active part in these international bodies, and the Reserve Bank is co-ordinating closely with other domestic agencies in helping to shape these international regulatory developments.

The Global Financial Environment

The past six months have seen some further improvement in recorded profitability in major countries' banking systems. Banks' share prices are, however, generally lower over the period, reflecting falls in April and May on concerns about peripheral euro area sovereign debt and the potential for negative feedback through credit exposures and funding markets. Investor sentiment was bolstered by the European support packages and bank stress tests, but subsequent softer data in some major economies raised concerns about whether the economic recovery that has supported loan quality would be robust to the withdrawal of extreme monetary and fiscal stimulus measures.

Graph 1
Banks' Share Prices
1 January 2008 = 100



* MSCI financials index
Source: Bloomberg

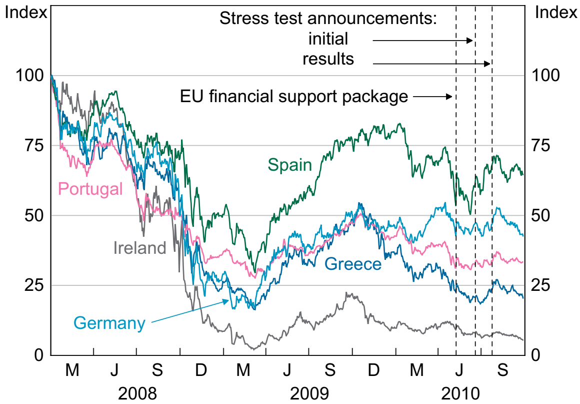
Profitability and Capital

Bank share price indices have generally fallen a little since end March, along with broader share price indices (Graph 1). The main downward movement was associated with the euro area sovereign debt concerns that flared in April and May, focusing on Greece, Portugal and Spain, discussed further in the section on 'Wholesale Funding Markets and Credit'. In particular, attention centred on banking systems in those countries – given the potential for contagion through funding markets, confidence and the economy – and on banks with direct exposures to debt issued by those governments.

As in earlier bouts of financial instability, authorities acted to calm sentiment. Support packages backed by the European Union (EU), euro area governments and the International Monetary Fund made significant financial assistance available for Greece and any other troubled European sovereigns, and the EU banking sector stress test exercise reassured investors that most banks would be resilient to further economic deterioration. Although euro area bank share prices have recovered somewhat, they remain among the weakest of the major economies: the euro area index is more than 50 per cent below early 2008 levels, with indices in countries such as Ireland, Greece and Portugal significantly lower again (Graph 2).

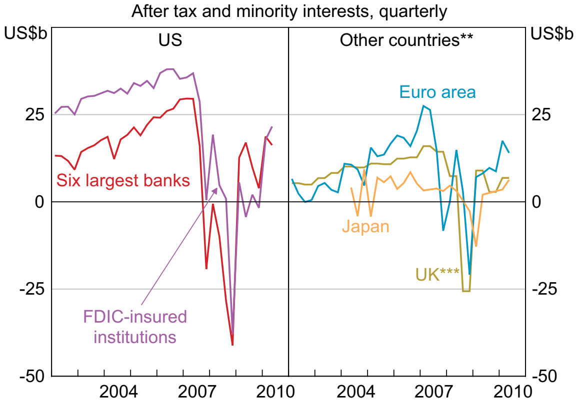
Despite the movement in bank share price indices over the past six months, reported profitability of banking systems in the major developed countries has generally continued to improve. Many large banks in the United States, euro area, United Kingdom and Japan have sustained profits for a run of recent reporting periods, helping

Graph 2
Euro Area Banks' Share Prices
1 January 2008 = 100



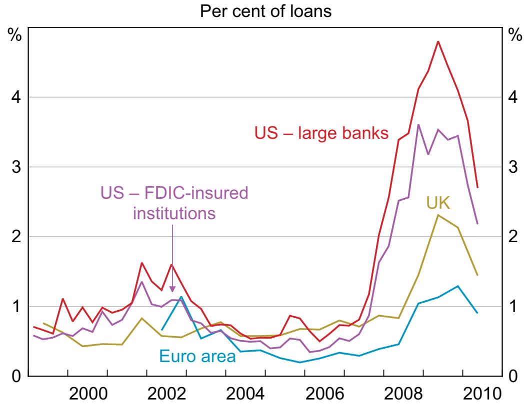
Source: Bloomberg

Graph 3
Banks' Profits*
After tax and minority interests, quarterly



* Adjusted for significant mergers and acquisitions
** Ten largest euro area banks (including Switzerland), five largest UK banks and four largest Japanese banks
*** Implied from semi-annual data
Sources: Bloomberg; FDIC; banks' annual and interim reports

Graph 4
Banks' Loan Loss Provisioning*
Per cent of loans



* Adjusted for significant mergers and acquisitions; annualised values of quarterly or semi-annual provisions; not seasonally adjusted; six largest US banks, ten largest euro area banks (including Switzerland) and five largest UK banks
Sources: Bloomberg; FDIC; banks' annual and interim reports

to rebuild capital after the heavy losses at the height of the crisis (Graph 3). In non-Japan Asia, banking systems had largely avoided the securities write-downs that were so damaging for many large North Atlantic banks, and profits have lifted further with the relatively strong macroeconomic outcomes.

The main factor boosting bank profitability in the major countries in the recent period has been the decline in the flow of provisions for bad loans as economic conditions have improved. In the United States, provisions have declined over the past year, particularly for larger institutions (Graph 4). In the United Kingdom, provisions have also fallen over the past year, most sharply in the half year to June. Aggregate falls in provisions have been a more recent development at large euro area banks although their provisions had generally been much lower. For larger banks, profits have also been supported by strong trading and investment income since the height of the crisis, though this has eased in some of the most recent results.

Reflecting differing economic and financial conditions, however, there is considerable variation in banking system performance by country, even in relatively integrated regions such as Europe. In particular, current and expected profits for banking systems in Greece, Portugal and Spain have been negatively affected by the recent sovereign debt concerns in these countries, and the associated effects on the economy, loan quality and funding conditions (see 'Box A: Banking Systems in Greece, Portugal and Spain'). Irish banks remain particularly challenged, with the largest banks generally reporting further losses in the first half of 2010, as they have done since 2008. The ongoing weakness in the banking sector, and the related increase in fiscal support costs, have recently aggravated concerns about Irish sovereign debt.

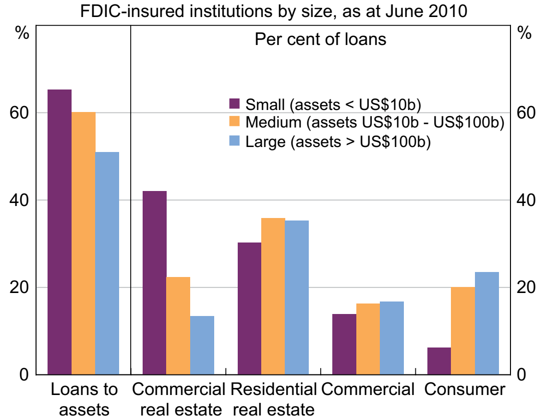
Just as developments in bank profitability and provisions have varied widely by country, there has been considerable variation within banking systems. There is evidence of the fall in provisions and return to profitability broadening across some of the banking systems most affected by the crisis:

in the half year to June in the United States, both small and medium-sized Federal Deposit Insurance Corporation (FDIC) insured institutions – which each account for around 20 per cent of total FDIC-insured assets – recorded an aggregate half-yearly profit for the first time in nearly two years. Vulnerability remains for many US banks, however, particularly among the smaller institutions that, in aggregate, have a relatively high share of assets exposed to the troubled commercial property sector (Graph 5). To date in 2010, 127 mainly small institutions have failed, well ahead of the number at the same time last year, and over 10 per cent of banks by number are considered vulnerable by the FDIC, more than the 1990s peak (Graph 6). Within countries in the euro area, more challenged segments are also evident with, for example, the state-owned German Landesbanken and the Spanish cajas (savings banks) generally performing worse than commercial banks in those countries.

Improved profitability in the major countries' banking systems is helping to support their capital positions. Banks have generally been looking to increase capital in the wake of the crisis as markets, rating agencies and regulators have reappraised appropriate levels and forms of capital, as discussed further in the chapter on 'Developments in the Financial System Architecture'. After some large market capital raisings in 2009, recent increases have relied more on retained earnings, as profits have picked up and dividends have remained low relative to earnings, in some cases reflecting conditions attached to earlier public equity injections.

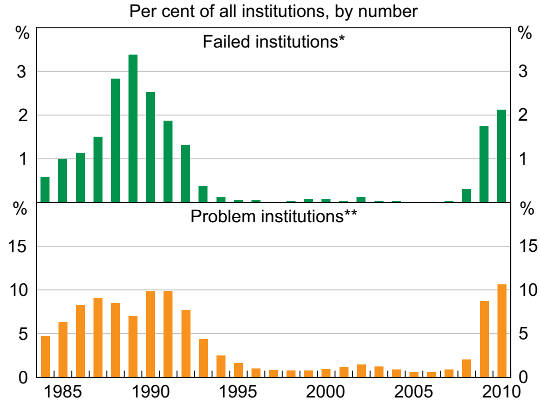
In the United States, a number of mainly larger banks have repaid public capital: over 80 of the 707 institutions receiving Troubled Asset Relief Program funds through the Capital Purchase Program have repaid the US Treasury in full, accounting for around 72 per cent of the total amount extended under this package. Some institutions have facilitated repayment of public capital by raising capital from the private sector, but this option is generally more difficult for smaller institutions, about one half of which are unlisted.

Graph 5
US Banks' Loans
FDIC-insured institutions by size, as at June 2010



Source: FDIC

Graph 6
FDIC-insured Institutions in Difficulty
Per cent of all institutions, by number



* 2010 annualised year to date
** Those with financial, operational or managerial weaknesses that threaten their continued financial viability; as at June 2010
Source: FDIC

There has been less repayment of public capital in the euro area. Given the nervousness about sovereign debt in some euro area countries and the potential for this to weaken banking sectors, new arrangements to facilitate further public capital injections, if required, have been established and others maintained or extended. These include individual country schemes to support banks in Greece, Spain and Germany, and the euro area-wide European Financial Stability Facility to support sovereigns.

These capital support arrangements were an important backstop to the EU banking sector stress test exercise, completed in July, which tested the capital resilience of 91 EU banks to an adverse economic and financial scenario. Ultimately, these banks were reported to be more resilient to the scenario than the market had expected. Some analysts had been expecting up to 20 banks to fall short of the 6 per cent Tier 1 capital ratio benchmark set for the exercise, by an aggregate amount of between €30 billion and €90 billion. In the event, just seven banks – from Spain, Germany and Greece – came in below the benchmark for a combined shortfall of €3.5 billion, though another 17 were within one percentage point of the benchmark (Table 1). It is notable that the participating banks' capital already incorporated around €200 billion of public capital provided earlier in the crisis.

Significant public injections of capital remain in place for the financial system outside of the banking sector, particularly for parts of the US financial system affected by significant housing market losses. The Government-sponsored housing agencies have required regular injections of public capital to offset significant ongoing losses, such that the cumulative public capital injections into Fannie Mae and Freddie Mac now total US$150 billion, with official estimates that this could rise further. The insurer AIG, which has considerable public funding still in place, has also continued to report losses in the year to June. Difficult conditions also persist for insurance market segments with housing exposure such as US lenders' mortgage insurers and US monoline insurers. Operating losses have generally continued for these industries in the first half of 2010, and share prices for the three largest insurers in each segment are, in aggregate, 90 per cent or more below their levels in early 2007.

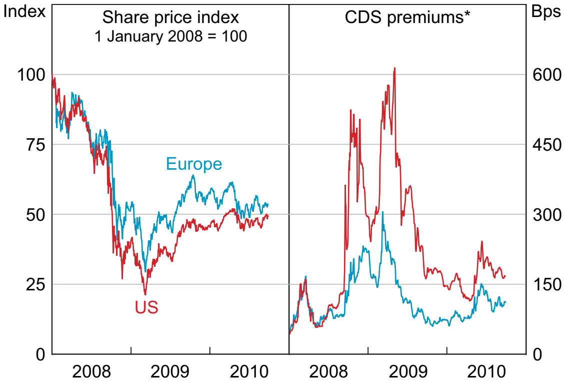
More broadly, general insurers in the United States and Europe – like banks – typically maintained their profitability in the first half of 2010, despite pressures on premiums. Market sentiment towards insurers has moved similarly to banks, with a mild fall in share prices and an increase in credit default premiums over the past six months (Graph 7). Reinsurers' profits have been dampened by natural disasters, though a turnaround in investment income has boosted results. For life insurers, low interest rates and compressed margins have weighed on profits. As a result, profits for US and European life insurers have fallen in recent years, with at least one rating agency expecting measured investment losses to continue in the near future.

Table 1: EU Stress Test Results by Country

	Number of institutions	Number of institutions with a Tier 1 capital ratio in Adverse Scenario[(a)] of:					
		<6%	6 - 6.9%	7 - 7.9%	8 - 8.9%	9 - 9.9%	≥10%
France	4	0	0	0	1	2	1
Germany	14	1	2	2	4	4	1
Greece	6	1	1	1	2	0	1
Ireland	2	0	1	1	0	0	0
Italy	5	0	2	2	1	0	0
Portugal	4	0	1	0	2	0	1
Spain	27	5	9	7	0	2	4
Other	29	0	1	2	5	5	16
Total	**91**	**7**	**17**	**15**	**15**	**13**	**24**

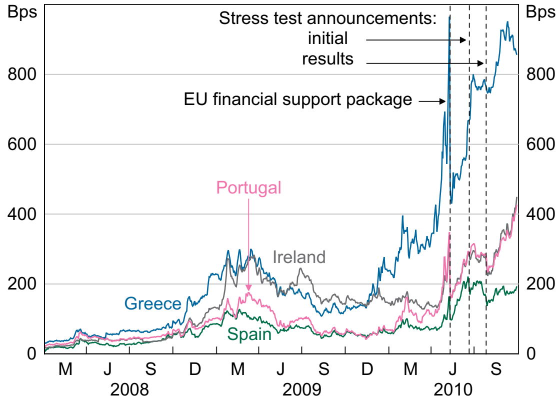
(a) Includes a sovereign risk shock
Source: Committee of European Banking Supervisors

Graph 7
US and European Insurers



* Includes eleven large US and nine large European insurers
Sources: Bloomberg; RBA

Graph 8
European Government Bond Spreads
To 10-year German Bunds



Source: Bloomberg

Wholesale Funding Markets and Credit

Developments in wholesale funding markets over the past six months have been shaped by concerns over sovereign debt in some countries, and the broader issue of the resilience of the global economic recovery to the removal of fiscal and monetary stimulus and financial sector support.

Market nervousness about sovereign debt intensified in early 2010, with a particular focus on Greece, reflecting that it has a relatively high ratio of public debt to GDP, a large budget deficit, and had a significant amount of debt falling due in April and May 2010 (Graph 8).[1] Concerns soon spread more widely, including to other countries with perceived fiscal strains, and to their banking sectors, given the perceived increase in risk from their holdings of sovereign debt, and deteriorating loan quality potentially exacerbated by fiscal consolidation. Sentiment was also affected around this time by the so-called 'flash crash', with US equity markets having a short-lived intraday drop of around 9 per cent in early May, for reasons that are still being investigated.

The fear was that concerns in Greece could trigger a broader financial contagion through intra-European exposures. Even though foreign banking sector claims on Greece typically amount to less than 1 per cent of total assets, European banks have significant exposures to other European countries where government debt levels have been a recent market focus (Table 2).

In this environment authorities acted to calm sentiment. In May, the EU and the International Monetary Fund announced significant financial support for Greece and, subsequently, euro area governments created the European Financial Stability Facility (EFSF) to assist any other troubled European sovereign. The EFSF can issue bonds guaranteed by participating euro area governments for the purpose of providing support to member countries in difficulty, with guarantee commitments from participating governments totalling €440 billion. Authorities also instigated the EU banking sector stress test exercise (discussed in the section on 'Profitability and Capital') which improved disclosure on banks' sovereign risk exposure and seemed to reassure investors that most banks would be resilient to further economic deterioration. Following these measures, financial market conditions stabilised somewhat, though spreads on European sovereign debt have subsequently widened further for some countries including Greece, Ireland and Portugal.

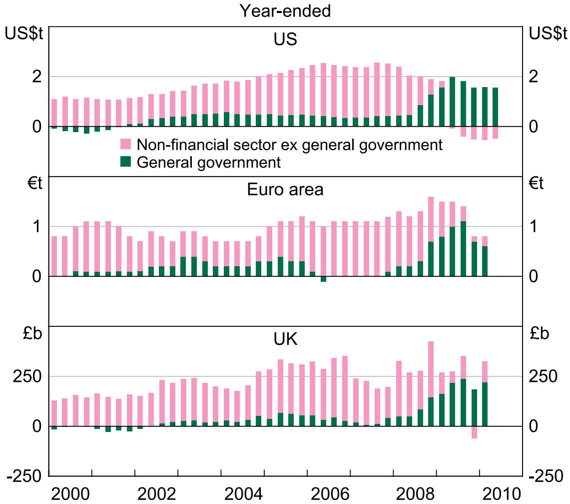
1 For further background see Reserve Bank of Australia (2010), 'Box A: Public Finances in Europe', *Statement on Monetary Policy*, August.

Table 2: Foreign Bank Claims on Euro Area Countries[(a)]
Ultimate risk basis, as at 31 March 2010, per cent of lending country's total bank assets[(b)]

Reporting banks (by headquarter location)	Greece	Ireland	Italy	Portugal	Spain	Subtotal	Euro area
Euro area banks	0.4	0.8	2.0	0.5	1.5	5.1	12.2
of which:							
German	*0.4*	*1.7*	*1.8*	*0.4*	*2.1*	*6.5*	*13.0*
French	*0.7*	*0.5*	*4.5*	*0.4*	*1.9*	*7.8*	*15.7*
Dutch	*0.4*	*0.8*	*1.9*	*0.4*	*3.2*	*6.7*	*21.8*
Belgian	*0.2*	*2.1*	*2.1*	*0.4*	*1.3*	*6.1*	*13.9*
Spanish	*0.0*	*0.3*	*0.8*	*1.8*	–	*3.0*	*5.8*
Portuguese	*1.6*	*2.6*	*0.7*	–	*3.8*	*8.8*	*13.0*
Swiss banks	0.2	0.8	0.7	0.1	0.6	2.4	12.8
UK banks	0.1	1.5	0.6	0.2	1.0	3.5	10.0
US banks	0.1	0.4	0.3	0.0	0.4	1.2	5.1
Japanese banks	0.1	0.2	0.5	0.0	0.3	1.2	5.4
Australian banks	0.0	0.2	0.4	0.0	0.1	0.7	2.0

(a) Based on 24 countries reporting to the BIS
(b) Monetary financial institutions used as a proxy for total bank assets for countries in the euro area and the United Kingdom
Sources: BIS; RBA; Thomson Reuters; central banks

Graph 9
Domestic Non-financial Debt Flows
Year-ended



Sources: Board of Governors of the Federal Reserve System; Eurostat; Office for National Statistics

Though sovereign debt fears have focused on the euro area, there are broader concerns about the need for medium-term fiscal consolidation in a number of countries, at a time when the resilience of economies to the withdrawal of fiscal stimulus is in question. One indication of the support being provided by fiscal policy is that, in the major economies, general government borrowing has accounted for almost all financing activity over the past year; households and businesses have barely borrowed in net terms (Graph 9).

Private financing activity in these countries is weak despite monetary policy remaining very accommodative. Cash rates are effectively zero in a number of the major markets, and long-term rates in many countries are around multi-year lows: for example, German Bund yields are currently around the lowest level since at least the 1920s. Low long-term rates partly reflect risk aversion among investors, but also that a number of central banks have signalled a commitment to stimulatory monetary policy for the period ahead and, in some countries, have purchased securities (Graph 10). The US Federal Reserve and the Bank of England have completed their announced securities purchase programs, though in August the Fed announced that it would re-invest principal repayments from its holdings of agency securities into longer-term Treasuries, and there has been speculation that the securities purchase program may be re-opened.

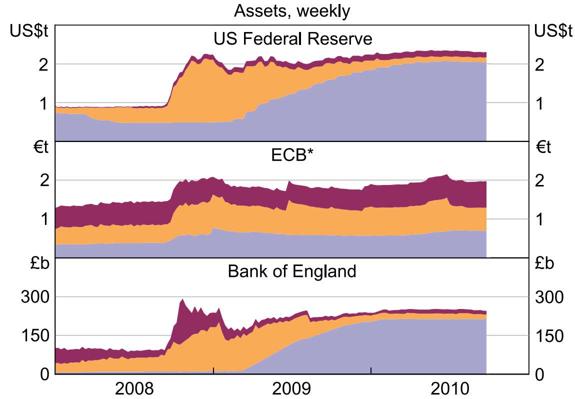
Conditions in international bank funding markets have remained unsettled over the past six months. Spreads on bank debt widened around April and May on sovereign debt fears (Graph 11). Banks' senior debt issuance slowed sharply during that period, but has subsequently increased (Graph 12).

In addition to pressures from sovereign debt concerns, European bank funding has been a focus because of the relatively large amount of maturing bonds in the next few years, including bonds that had been issued under wholesale funding guarantee schemes. Reduced access to private markets has seen banks in Greece and some other peripheral euro area economies sharply increase their use of ECB funding, as discussed in 'Box A: Banking Systems in Greece, Portugal and Spain'. Several European countries, including Germany, Ireland and Spain also recently extended the expiry date for their wholesale funding guarantee schemes to end December 2010. European institutions have recently raised funding through the covered bond market, though issuance has slowed since the ECB's €60 billion covered bond purchase program ended in June.

Subdued private financing activity is evident across both intermediated and non-intermediated markets, reflecting ongoing caution among both lenders and borrowers. In the United States, euro area and United Kingdom, business credit has continued to fall over the six months to June, though the rate of contraction has eased in some countries (Graph 13). Housing credit growth is more varied across countries: there have been further declines in the United States, where the housing cycle has been

Graph 10
Central Bank Balance Sheets

Assets, weekly

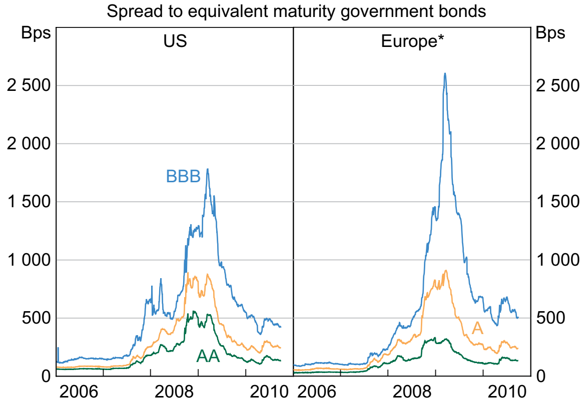


* Securities includes some other assets

Sources: Bank of England; Board of Governors of the Federal Reserve System; ECB; Thomson Reuters

Graph 11
Banks' Bond Spreads

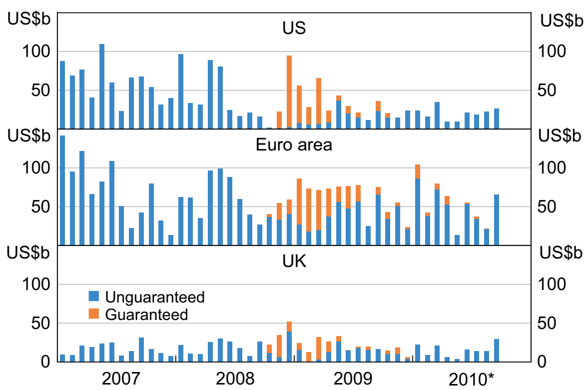
Spread to equivalent maturity government bonds



* EMU euro-denominated bonds issued by financials

Source: Bloomberg

Graph 12
Financials' Bond Issuance

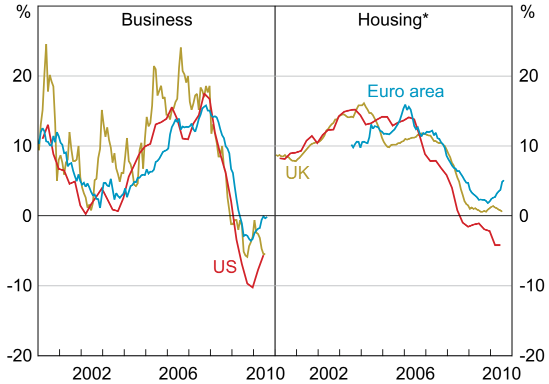


* September 2010 is month to date

Sources: RBA; Thomson Reuters

Graph 13
Credit Growth

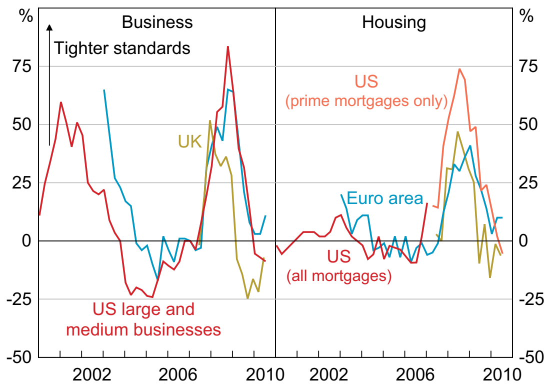
Six-month-ended, annualised, seasonally adjusted



* Euro area data adjusted by the RBA for securitisations

Sources: Bank of England; Board of Governors of the Federal Reserve System; ECB; RBA

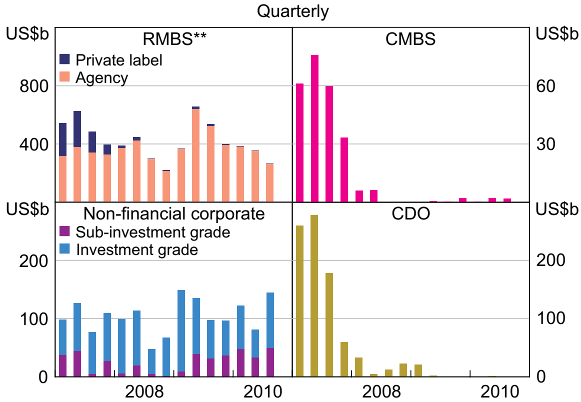
Graph 14
Credit Standards



Sources: Bank of England; Board of Governors of the Federal Reserve System; ECB

Graph 15
US Debt Issuance*

Quarterly



* Includes 'structure-to-repo' issuance; September 2010 is quarter to date

** Includes some agency CMBS

Sources: CRE Finance Council; JPMorgan; SIFMA; Thomson Reuters

more pronounced, but growth has recently picked up in the euro area.

Survey evidence shows that banks' willingness to lend has increased since the extremes of the crisis, but remains subdued overall (Graph 14). In the United States and United Kingdom a small net percentage of lenders reported easing lending standards in the first half of 2010 for both housing and business loans, and in the euro area the reported net share of institutions tightening is well below levels of previous years. Nonetheless, lingering uncertainty about funding, economic and financial conditions, and the nature and implications of the future regulatory environment may be contributing to a cautious approach from lenders. Loan officer surveys also generally show that, despite some recent increase, demand from borrowers remains fairly weak, reflecting both a desire to reduce leverage, and reduced ability to borrow given the weakness in collateral values.

Capital market funding (an alternative to intermediated credit for some, typically larger, borrowers) also remains relatively subdued in a number of markets, particularly in those considered more risky. Structured finance markets largely remain moribund, with issuance activity in the United States predominantly restricted to residential mortgage-backed securities with government-sponsored agency involvement (Graph 15). Leveraged buy-out activity is also well down on pre-crisis levels: in the year to June 2010, global deals totalled under US$100 billion, compared with over US$1 000 billion in the year to June 2007. Issuance of conventional corporate bonds has been relatively stronger. There are some indications that corporates have been responding to the fall in long-term interest rates by refinancing debt for longer maturities.

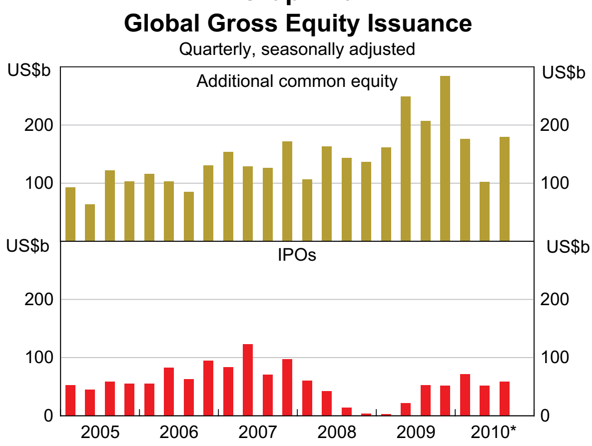
Capital raisings through equity issuance have eased a little since 2009, when firms were actively deleveraging (Graph 16). Consistent with the more cautious tone in funding markets, additional raisings by listed firms continue to dominate activity, in contrast to the period immediately preceding the crisis when initial public offerings (IPOs) accounted for around one half of all equity raisings. Equity raisings by financial firms have also eased after relatively strong activity in 2009.

Loan Quality and Asset Prices

The decline in flows of provisions for bank loan losses in some countries (discussed in the section on 'Profitability and Capital') has, more recently, been reflected in falls in the stock of non-performing loans. In the United States, the share of non-performing loans across all FDIC-insured institutions fell in the June quarter, after having broadly stabilised in March (Graph 17). Historical data show that this is the usual pattern, with declining flows of provisions ultimately reflected in an improvement in the share of non-performing loans, as fewer loans become impaired, and existing impaired loans either revert to performing status or are written off.

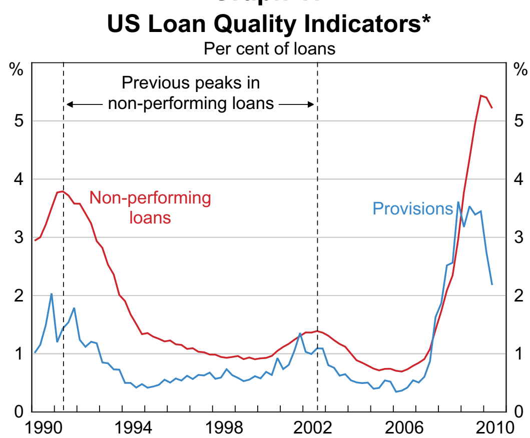
Disaggregated data show that the improvement in loan quality in the United States has been fairly broad based across loan categories: there has been a mild dip in non-performing loan ratios across consumer, commercial, and both commercial and residential real estate categories (Graph 18). Though comparable data across these categories are generally not available for other banking systems, available housing loan data suggests some broader signs of steadying in countries such as Spain and the United Kingdom (Graph 19). As in earlier episodes, stimulatory monetary and fiscal policy settings and the associated recovery in economic conditions have played a role in the improvement. Lower interest rates have eased debt servicing burdens, and unemployment has stabilised or fallen in a number of countries. Given the relatively greater magnitude of the stimulus in the current episode, however, questions remain about the resilience of the recovery to its removal.

Graph 16



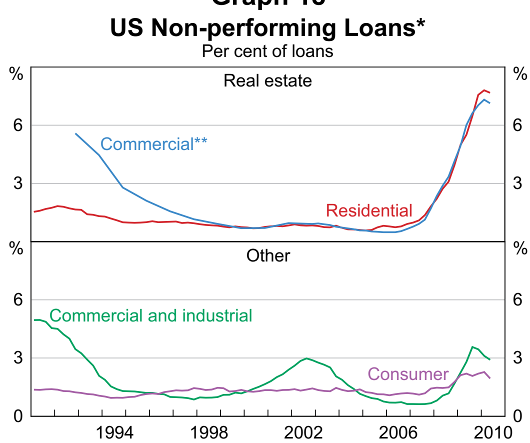
* September 2010 is quarter to date
Sources: RBA; Thomson Reuters

Graph 17



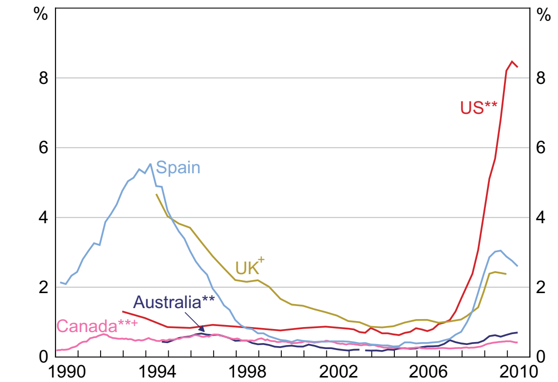
* FDIC-insured institutions
Source: FDIC

Graph 18



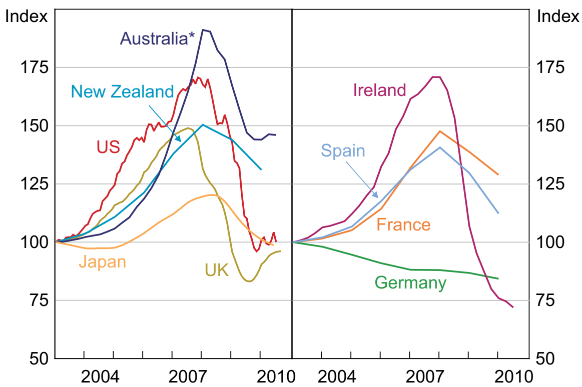
* FDIC-insured insitutions
** Includes construction and development loans
Source: FDIC

Graph 19
Non-performing Housing Loans
Per cent of loans*



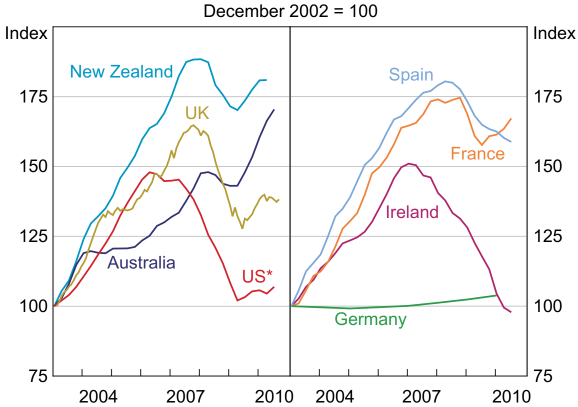
* Per cent of loans by value; includes 'impaired' loans unless otherwise stated; for Australia, only includes loans 90+ days in arrears prior to September 2003
** Banks only
\+ Per cent of loans by number that are 90+ days in arrears
Sources: APRA; Bank of Spain; Canadian Bankers' Association; Council of Mortgage Lenders; FDIC; RBA

Graph 20
Commercial Property Prices
December 2002 = 100



* Prime office space only
Sources: Bloomberg; Jones Lang LaSalle; RBA

Graph 21
Dwelling Prices
December 2002 = 100



* Prices of detached houses only
Sources: APM; Bloomberg; RBA; Thomson Reuters

Property-related exposures remain a key focus for the loan quality of many banking systems. In the United States, real estate loans typically account for the majority of banks' loans, and the share of non-performing loans for property – particularly residential real estate – remains above previous peaks. In the euro area and the United Kingdom, available data suggest that commercial property also continues to figure prominently in non-performing loans.

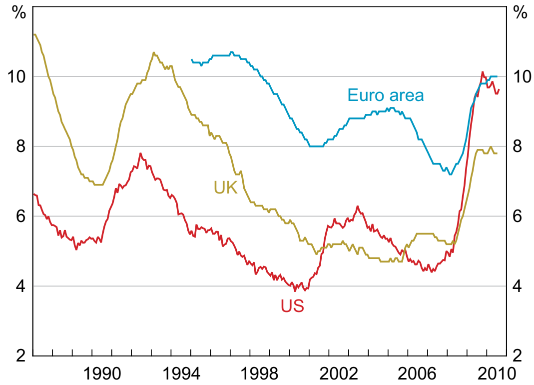
Collateral values continue to be a problem for many commercial property exposures, as prices remain well below their peaks in many countries (Graph 20). In the United States and the United Kingdom, commercial property prices in June were 4 per cent and 15 per cent above their respective troughs, but remain around 40 per cent and 35 per cent respectively below the peaks in 2007. Commercial real estate price data for 2010 are not widely available across the major euro area countries, but prices in Ireland recorded another decline, to be 58 per cent below the recent peak. The falls in property prices raise concerns that borrowers will be unable to refinance maturing loans: in the United States about 40 per cent of financial institutions' commercial real estate loans are expected to mature in the period 2010–2014, of which around one half is estimated to have a loan value exceeding the current collateral value.

Residential property prices also remain well below their peaks in many countries (Graph 21). Again, this is despite some recent mild price gains in some markets; for example in mid 2010 residential property prices in the United States and United Kingdom were 5 per cent and 9 per cent, respectively, above their recent lows. In the case of the United States, housing market activity appears to have been temporarily boosted by the Government's home-buyer tax credit, which expired in April 2010, but activity has since fallen. Housing markets in many euro area countries are yet to show significant signs of improvement.

Relatively subdued conditions in asset markets are likely to persist while private financing activity remains weak, and elevated levels of unemployment remain a drag on both confidence and capacity to service debt. While the US unemployment rate has fallen slightly over recent months, it remains more than double the level before the onset of the financial crisis (Graph 22). In the euro area and United Kingdom, unemployment rates are little changed from their recent peaks of 10 per cent and 8 per cent respectively. There is considerable variation across the euro area: in Germany, the unemployment rate has declined by 0.7 percentage points over the year to 7 per cent in July whereas in Spain, the unemployment rate has increased further and remains over 20 per cent.

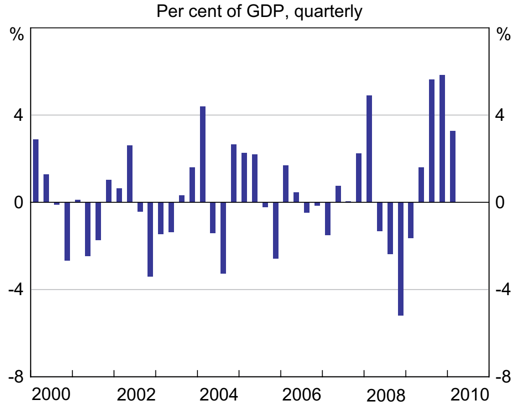
Loan quality considerations are quite different for many emerging market economies, including in Asia, where actual and expected growth outcomes are much stronger than developed economies (Table 3). Given growth and, increasingly, interest rate differentials to developed economies, concerns are more focused on capital inflows to countries with managed exchange rate regimes and less well-developed financial systems, and the potential for unsustainable asset price rises to undermine future asset quality. The turnaround in net capital flows to Asia between 2008 and 2009 was particularly strong, although net flows have eased a little in the most recent observation (Graph 23).

Graph 22
Unemployment Rates



Source: Thomson Reuters

Graph 23
Net Private Capital Flows to Asian Economies
Per cent of GDP, quarterly



* Financial account transactions less reserves; includes Hong Kong SAR, India, Philippines, Singapore, South Korea, Taiwan and Thailand
Sources: CEIC; IMF

Table 3: World GDP Growth
Year average, per cent[(a)]

	2008	2009	2010	2011
			IMF forecasts[(b)]	
United States	0.0	-2.6	3.3	2.9
Euro area	0.5	-4.1	1.0	1.3
Japan	-1.2	-5.2	2.4	1.8
China	9.6	9.1	10.5	9.6
Other east Asia[(c)]	2.8	0.0	6.5	5.0
India	6.4	5.7	9.4	8.4
World	3.0	-0.6	4.6	4.3
Australia	2.2	1.2	3.0	3.5

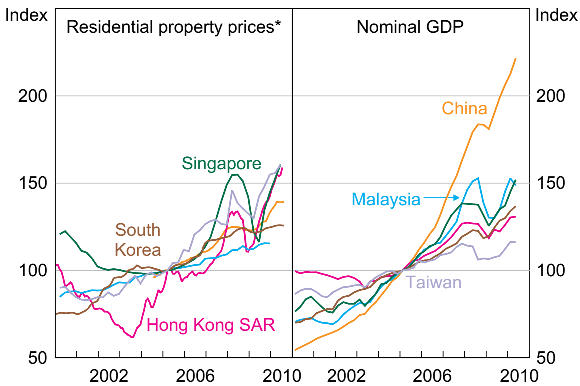
(a) Aggregates weighted by GDP at PPP exchange rates unless otherwise specified
(b) Forecasts from the July *World Economic Outlook* Update
(c) Weighted using GDP at market exchange rates
Sources: CEIC; IMF; RBA; Thomson Reuters

Consistent with the turnaround in capital inflows and relatively stronger outlook for economic growth, asset prices have increased substantially in some emerging markets. For example, share price indices in emerging Asia and Latin America have significantly outperformed those in the developed world since the end of 2008, with broad indices showing gains of around 60 per cent to 75 per cent compared with around 25 per cent in developed countries. In Asia, residential property prices in China, Hong Kong SAR, Singapore and Taiwan have experienced strong growth since late 2008 and early 2009, partly reflecting strong growth in economic activity and incomes (Graph 24).

Authorities in some Asian countries are using various policy measures to address rising property prices. In China, the Government has introduced various measures including increasing minimum down-payments and mortgage rates for those purchasing their second (or more) property, discouraging bank lending to third-home buyers, auditing land holdings by property developers to ensure land and housing is not being hoarded, and reducing some state-owned companies' involvement in property markets. The Hong Kong authorities recently took measures that include reducing maximum loan-to-valuation ratios for luxury and investment properties, tightening restrictions on debt-servicing ratios, increasing land supply and increasing the cost of speculative transactions. In Singapore, the Government imposed sellers' stamp duty on property resales within a specified period, raised the minimum down-payment required for home financing and increased the supply of public housing.

In a number of countries central banks have tightened monetary policy, and other actions have been implemented to restrict new lending. The Chinese authorities have strengthened the supervision of lending to local government investment vehicles, and have prohibited local governments from guaranteeing their debts. The China Banking Regulatory Commission has ordered banks to report on their exposures to local government investment vehicles by the end of the year. Local governments set up these vehicles to fund mainly infrastructure and property development projects and their borrowing had increased rapidly during the financial crisis, supported by central government funds. On capital flows, Indonesia has introduced measures designed to shift capital inflows away from short-term central bank debt into longer-term investments, while South Korea imposed stricter currency controls to stabilise flows and reduce currency volatility.

Graph 24
Asset Prices and Nominal GDP
March 2005 = 100



* For China, data are an average of new and existing residential property prices
Sources: CEIC; RBA

Box A

Banking Systems in Greece, Portugal and Spain

Over 2010, concerns about sovereign debt in Greece, Portugal and Spain have been associated with a deterioration in sentiment towards banks in those countries. This Box outlines the structure of their banking systems, recent developments, and the financial sector support mechanisms in place.

In aggregate, the banking systems in Greece, Portugal and Spain share a similar mix of broad asset and liability categories, that is not very different from the euro area average. In these countries, monetary financial institutions' (MFIs) loans are around 70 per cent of assets, with similar splits between household and business loans (Table A1). The balance is in debt securities (around 15 to 20 per cent) and other assets, such as equity holdings and fixed assets. On the liability side, around 70 to 80 per cent of their funding is from deposits, with the remainder from wholesale markets (around 5 to 20 per cent) and other sources.

Banking industry structures show more variation across these countries. In Greece and Portugal the systems are quite concentrated; the largest five banks in each country account for around 70 per cent of banking system assets. In contrast, the banking system in Spain is more fragmented; the five largest institutions hold just over 40 per cent of banking system assets. Just under one half of banking system assets is held by commercial banks,

Table A1: Euro Area MFIs' Balance Sheet

Claims on and liabilities to euro area residents, per cent of total, as at July 2010[(a)]

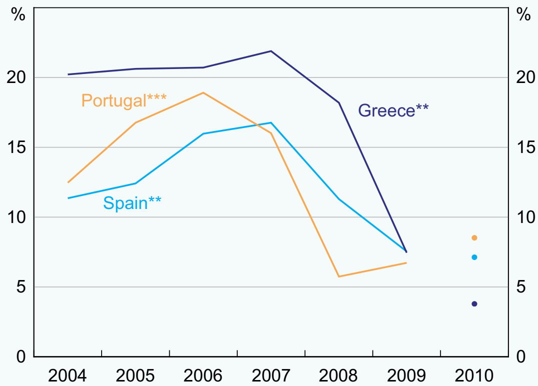
	Greece	Portugal	Spain	Euro area
Assets				
Loans	74	66	70	65
Household	29	28	27	18
of which:				
Housing	*18*	*22*	*21*	*13*
Other personal	*12*	*5*	*7*	*5*
Business and other[(b)]	45	39	43	47
Securities other than equities	14	21	17	18
Government	10	5	5	6
Other	3	17	12	13
Other assets	12	12	13	16
Liabilities				
Deposits	82	68	70	60
Debt securities	4	18	13	18
Other	6	5	8	15
Equity	9	9	9	7

(a) The data cover consolidated transactions of MFIs' operations within the country
(b) Includes financial corporations and general government
Source: ECB

with over 40 cajas or savings banks making up most of the remainder. The largest banks in these countries often also have sizeable offshore operations; for example some of the large Greek banks are active in eastern Europe, and some of the Spanish banks have extensive operations in Latin America and North Atlantic countries.

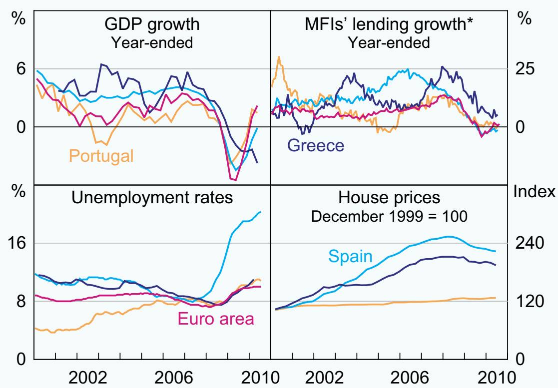
Banking systems in Greece, Portugal and Spain were quite profitable in the years preceding the crisis. This was particularly the case in Greece, where return on equity of the five largest banks averaged around 20 per cent (Graph A1). The high profitability partly reflected strong economic outcomes; in the five years to 2007, Greek GDP and lending growth averaged around 4 per cent and 14 per cent respectively, compared to around 2 per cent and 7 per cent for the euro area (Graph A2). These strong outcomes partly reflected historically low borrowing rates after entry to the euro system lowered risk spreads.

Graph A1
Banks' Return on Equity*
Before tax



* Five largest Greek banks, and all Portuguese and Spanish MFIs
** 2010 data are annualised half year results
*** 2010 data are annualised March quarter results
Sources: Bank of Portugal; Bank of Spain; Bloomberg; banks' annual and interim results

Graph A2
Macroeconomic Indicators



* Securitisations brought onto Greek MFIs' balance sheets from June 2010 are excluded
Sources: BIS; ECB; Thomson Reuters

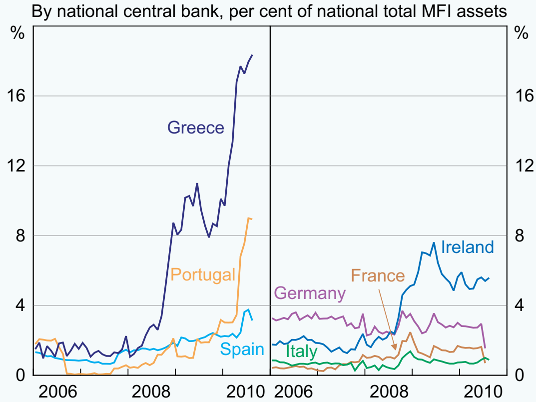
In the recent period, however, profitability has fallen sharply as financial and macroeconomic conditions have deteriorated. Funding for banks and the economy generally has been negatively affected by the increase in sovereign risk spreads and declining confidence, with concerns including the direct effect on banks' holdings of sovereign debt, and the effect of current and future fiscal tightening on growth and future loan quality. Greek banks' asset quality is among the lowest in the euro area; the non-performing loan ratio stood at 8.2 per cent of total loans as at March 2010, well above the ratio of a year earlier. High unemployment and falling property prices have weighed on asset quality in Spain, bringing the non-performing loan ratio to 3.6 per cent in June 2010, though its rate of increase has slowed in the past six months. Among Portuguese banks, the non-performing loan ratio has increased from 2.7 per cent to 3 per cent in the six months to July 2010, around half a percentage point higher than a year earlier. Nonetheless, to date, banks in these countries have generally maintained profitability despite increased provisions for bad loans.

The results of the European bank stress test exercise, released in July, suggest that banking institutions in Spain and Greece were among those that would be most affected by a further deterioration in asset quality: of the seven institutions where capital fell below the 6 per cent Tier 1 capital ratio benchmark in the most difficult scenario, five were Spanish cajas and one a large Greek bank (the seventh was German). Twelve Spanish institutions, one Greek and one Portuguese bank were also among the 21 institutions that came relatively close to breaching the benchmark (with a Tier 1 capital ratio of between 6 and 7 per cent inclusive in the scenario). However, Spain had the largest number of banks in the stress test sample, reflecting both the structure of the banking system there and wider participation in the test than in other countries.

Various measures are in place to support both the capital and liquidity of banks in these countries. The Spanish Government has set up the Fund for Orderly Bank Restructuring which has €12 billion available to facilitate restructures and mergers and which can be increased, if necessary, to €99 billion. In addition, the Spanish authorities have relaxed ownership rules to encourage restructuring of the sector, and significant consolidation is already underway. Both Greece and Portugal have recapitalisation funds to enable banks to maintain a Tier 1 capital ratio of at least 8 per cent. Nine Greek banks have received €4 billion out of the €5 billion of funds that have been set aside by the Greek Government and a further €10 billion is available through the Hellenic Financial Stability Fund. No private Portuguese bank has required recapitalisation to date.

The ECB is also supporting banking systems through its monetary policy operations and liquidity facilities. Lending to domestic MFIs by central banks in Greece, Portugal and, to a lesser extent, Spain has increased sharply since 2008 (Graph A3). The European Financial Stability Facility, which became operational in early August, is another potential source of support. These arrangements have helped to support the ongoing operations of the banking systems in these countries.

Graph A3
ECB Monetary Policy Operations
By national central bank, per cent of national total MFI assets



Sources: Central banks

The Australian Financial System

The Australian banking system remains strong having weathered only a very mild downturn compared with international experience over the past few years. The profitability of the largest banks has picked up over the past half-year, reflecting further growth in interest income and a decline in bad and doubtful debt charges. The banking sector's capital position has been bolstered by actions in recent years to increase the level and quality of capital. Banks have also moved to strengthen their funding positions, in an environment where wholesale markets remain sensitive to swings in global investor sentiment. Banks have continued to grow their balance sheets, albeit at a slower pace than in recent years, driven mainly by lending for housing by the major banks.

Profits and Asset Quality of the Banking System

The four major Australian banks reported aggregate headline profits after tax and minority interests of almost $10 billion in their latest available half-yearly results (Table 4). This result was about $1¼ billion higher than in the same period a year earlier and signals a recovery to pre-crisis profitability, following a relatively shallow downturn over the preceding 18 months. In the latest half-yearly results, bad and doubtful debt charges declined markedly – the first decline since the financial crisis began – which drove the recovery in profitability (Graph 25). Interest receipts, which stem from the core lending business of the major banks and

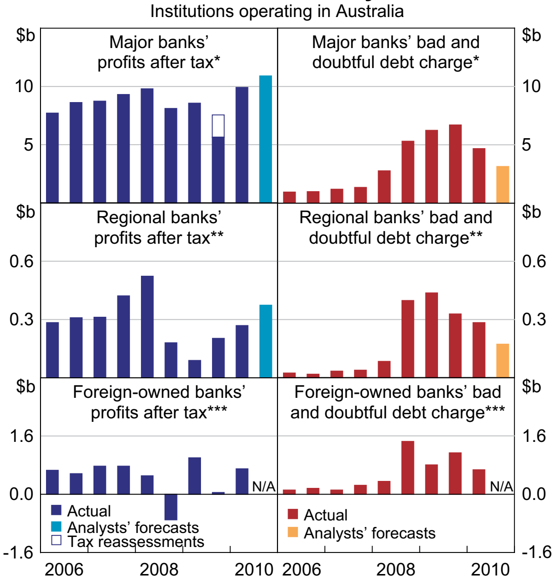
Table 4: Major Banks' Latest Half-yearly Profit Results[(a)]
Consolidated global operations

	2009 $billion	2010 $billion	Change $billion
Income			
Net interest income	22.3	23.1	0.8
Non-interest income	11.4	10.7	–0.7
Expenses			
Operating expenses	15.1	15.7	0.6
Bad and doubtful debts	6.2	4.7	–1.5
Profit			
Net profit before tax	12.3	13.4	1.1
Net profit after tax and minority interests	8.6	9.9	1.3

(a) Half-year to March for ANZ Banking Group, National Australia Bank and Westpac Banking Corporation; half-year to June for Commonwealth Bank of Australia

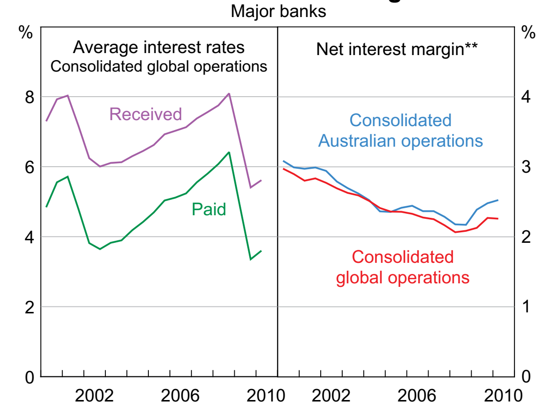
Sources: Banks' annual and interim reports; RBA represent their main source of revenue, have been sufficient over the past two years to fully recoup higher funding costs and partly offset the rise in loan losses. Net interest income has therefore continued to underpin the profitability of the major banks, unlike for many of the largest global banks, which had branched out into relying more heavily on trading and investment income. Analysts are forecasting the major banks' bad and doubtful debts to decline further in the near term and their profits to increase commensurately, though some analysts have revised down expectations for growth in net interest income.

Graph 25
Bank Profitability
Institutions operating in Australia



* 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; Citigroup; Morgan Stanley; RBA; UBS Securities Australia; banks' annual and interim reports

Graph 26
Interest Rates and Margin*
Major banks



* 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: Banks' annual and interim reports

Although the smaller Australian banks were more severely affected by the downturn, they have also benefited from improved conditions more recently. Their bad and doubtful debt charges declined by about 15 per cent in the most recent reporting period and profits have increased, although not back to their pre-crisis levels. In aggregate, the regional banks reported $0.3 billion in after-tax profits in their latest available half-yearly results, and market analysts expect profits to increase further in the second half of 2010. Despite an increase of around $0.7 billion in their latest half-yearly results, the profitability of foreign-owned banks in Australia has remained somewhat more variable, with a sharper rise in bad and doubtful debts early in the crisis. However, the cycle has been considerably more muted for these banks as well, when compared with recent overseas outcomes and their historical experience in Australia.

The net interest margin (NIM) of the major banks' consolidated global operations increased by around 20 basis points since the trough in 2008 but has levelled off a little recently (Graph 26). Over the same period, the NIM for their Australian operations is around 35 basis points higher. This divergence reflects that banks have been less successful in recovering increases in their funding costs in overseas markets which have been more adversely affected by the financial crisis than Australia.

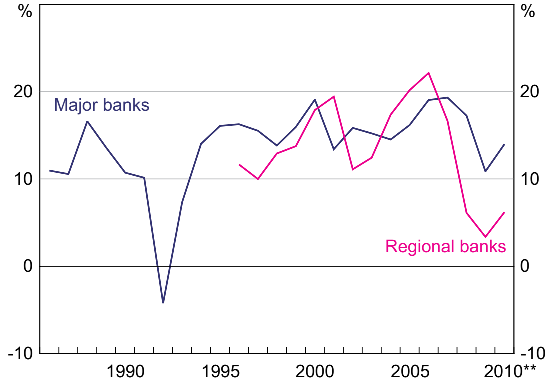
The ability to recoup rising costs and loan losses, which has helped to smooth profits over the past few years, is also reflected in a relatively shallow dip in the major banks' return on equity. The major banks' return on equity recovered from 11 per cent in the 2009 financial year to 14 per cent in 2010 (Graph 27). For the regional banks, results to date suggest that interest income has been somewhat less buoyant because their balance sheet growth remains constrained by their more limited access to funding at competitive rates. Compounding the dampening effect this has had on smaller banks' profitability has been the sharper rise in bad and doubtful debts, which in large part stems from earlier lending practices and exposures to problem lending areas such as commercial property. As a result, the return on shareholders' equity has remained below that reported by the major banks, though it is also showing signs of recovery.

As the economic recovery continued in the first half of 2010, the inflow of new impaired assets slowed and more loans have reverted to being no longer impaired (Graph 28). In line with this, write-offs have also declined, banks' provisioning against expected losses on individually identifiable loans has remained little changed, and the charge for bad and doubtful debts is expected to decline further in coming quarters.

Consistent with this, banks' stock of non-performing assets (NPA) rose slightly over the March quarter but remained broadly unchanged at 1.7 per cent of balance sheet assets in the June quarter. This is low compared with many North Atlantic banking systems and below the peak of well over 6 per cent reached in Australia in the early 1990s. Non-performing domestic business assets account for around 60 per cent of the total stock of NPAs, relatively more than domestic business assets' share of total assets.

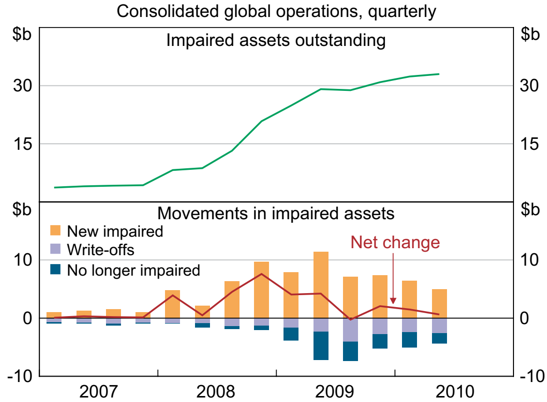
In the overall domestic loan portfolio, the importance of non-performing business assets (at 1½ per cent of all loans) remains much higher than for housing lending (at just ½ per cent) (Graph 29). This is also evident in the much sharper rise in non-performing business assets as a proportion of the business loan portfolio, to stand at around 3½ per cent as at the June quarter 2010, compared with ratios of 1½ per cent for non-performing personal loans and just ¾ per cent for housing loans. The relatively small rise in banks' total domestic NPA ratio over the first half of 2010 reflects that the stock of outstanding business credit is smaller than housing credit and, more recently, that business credit has been broadly flat while housing credit continued to grow, as discussed in the section on 'Lending Growth and Credit Conditions'.

Graph 27
Return on Equity*
Post-tax and minority interests



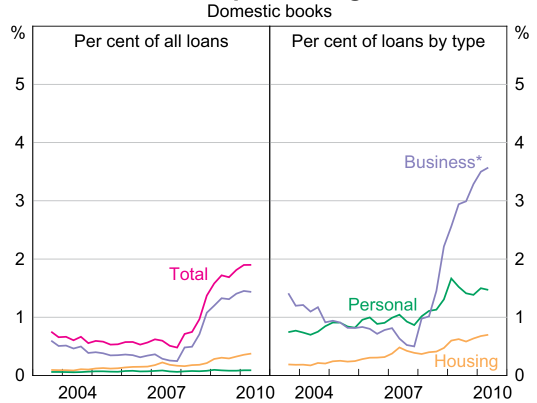
* From 2006 data are on an IFRS basis; prior years are on an AGAAP basis
** 2010 data are annualised half-year results with the exception of CBA, Suncorp and Bendigo and Adelaide Bank
Sources: Banks' annual and interim reports

Graph 28
Banks' Impaired Assets
Consolidated global operations, quarterly



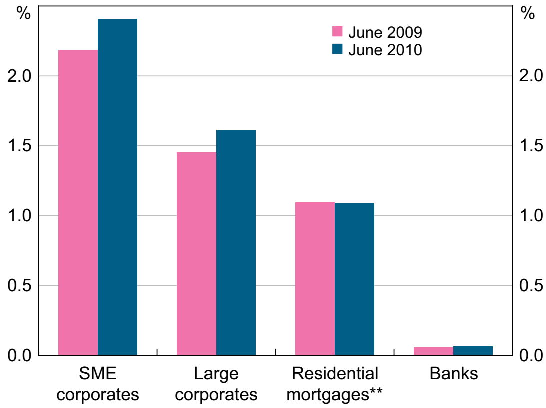
Source: APRA

Graph 29
Banks' Non-performing Assets
Domestic books



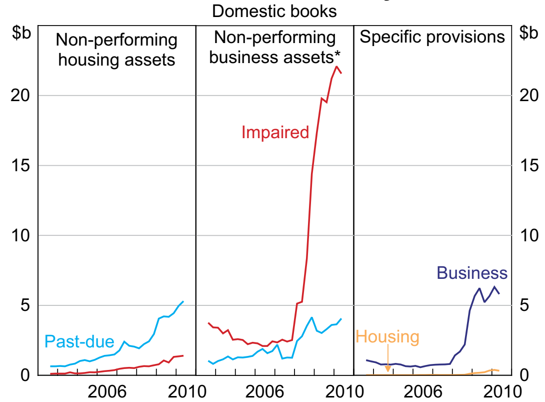
* Includes lending to non-ADI financial businesses, bill acceptances and debt securities, and other non-household loans
Source: APRA

Graph 30
Counterparty Default Probabilities*
Simple average of major banks' estimates



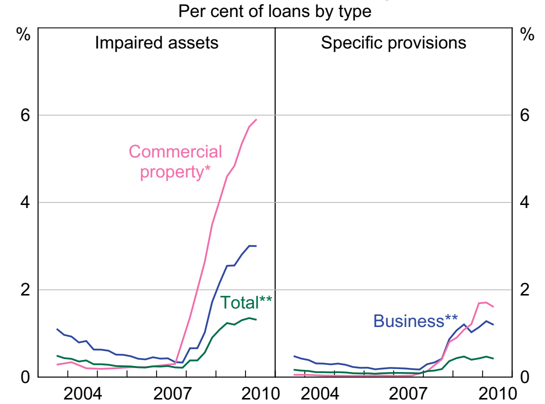
* Consolidated global banking group; on-balance sheet portfolios assessed under the Internal Ratings-Based approach only
** Loans to households and small businesses that are secured by residential mortgages
Source: APRA

Graph 31
Banks' Asset Quality
Domestic books



* Includes lending to non-ADI financial businesses, bill acceptances and debt securities, and other non-household loans
Source: APRA

Graph 32
Banks' Asset Quality
Per cent of loans by type



* Consolidated Australian operations; sample of 26 banks
** Domestic books; all banks; includes lending to non-ADI financial businesses, bill acceptances and debt securities, and other non-household loans
Source: APRA

Overall, the major banks' estimated default probabilities for corporate exposures have risen over the past year, partly reflecting expectations about the delayed effects of macroeconomic slowdown – and the unwinding of stimulus measures – on small and medium enterprises (SMEs) (Graph 30).

The dollar value of non-performing business loans might be nearing a peak, as suggested by the stabilisation in the stock of impaired loans and specific provisions (Graph 31). In contrast, the value of non-performing housing assets has continued to rise but remains fairly low. Some of the major banks attributed the increases in early 2010 to rising interest rates, which suggests that their effect outweighed that of the improving labour market. Non-performing housing assets are mainly classed as 'past-due' rather than 'impaired', implying that they continue to be well collateralised – an unsurprising result given house price gains in recent years. Non-performing business assets on the other hand are predominantly 'impaired', so that specific provisions for potential losses on business-related loans are significantly higher than for housing loans. Within the aggregates, impaired assets for the smaller Australian-owned and foreign-owned banks – which had increased much more than at the major banks – have also begun to stabilise.

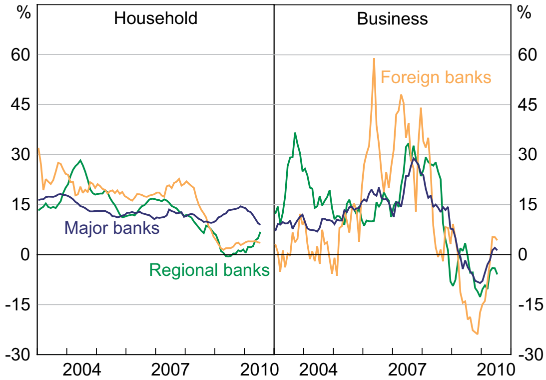
Banks' commercial property exposures remain under the most pressure. Non-performance among loans to this sector (which account for just under one-third of banks' on-balance-sheet business credit) has continued to rise, with the share of loans that are impaired almost double that for all business assets (Graph 32). Part of this increase can be attributed to the run-off in commercial property loan portfolios, since a given value of impairments represents a greater share of a shrinking overall portfolio. Nonetheless, there are signs that these impaired exposures are stabilising, with specific provisions having declined slightly.

In contrast to their domestic assets, banks' overseas assets deteriorated at a slightly faster pace in the first half of 2010 than previously and delinquencies remain higher than on domestic assets. This is consistent with the weaker economic conditions in the key overseas markets of New Zealand and the United Kingdom, which together make up around 15 per cent of Australian banks' total asset exposures. Despite the ongoing fragility of European financial markets, however, the prospect of contagion spreading directly from banks in countries that use the euro to Australian banks through defaults is limited. The value of Australian bank claims on euro area banks was under $50 billion in March 2010, which is less than 10 per cent of all Australian banks' total foreign claims, 30 per cent of their capital and 2 per cent of their total assets (Table 5). The vast bulk of Australian banks' exposures are to institutions in the larger European countries, and their exposures to the countries that have experienced the most serious financial and fiscal difficulties is small. Since the onset of the financial crisis, the Australian dollar value of exposures to European banks has declined as the exchange rate appreciated against the euro and no net new claims have been established.

Lending Growth and Credit Conditions

Banks continued to expand their provision of credit over the past six months, with housing loans continuing to account for almost all of this growth (Graph 33). This has seen a further increase in the share of housing credit in banks' overall loan portfolio (to around 60 per cent of loans) and a corresponding decline in the share of business credit.

Graph 33
Bank Credit Growth
Six-month-ended, annualised



Sources: APRA; RBA

Household credit extended by the major banks (around three-quarters of total household credit) has continued to grow at a faster pace than at other financial institutions, although this has slowed to an annualised rate below 10 per cent amid signs of somewhat softer conditions in the housing market. The deceleration was led by slower lending to owner-occupiers, in line with a decline in loan approvals for first-home buyers as the boost in federal grants to first-home buyers expired, and in part reflecting the return of interest rates to around average levels. Personal credit – a small component of household credit – remained little changed in the past half-year even though margin lending declined.

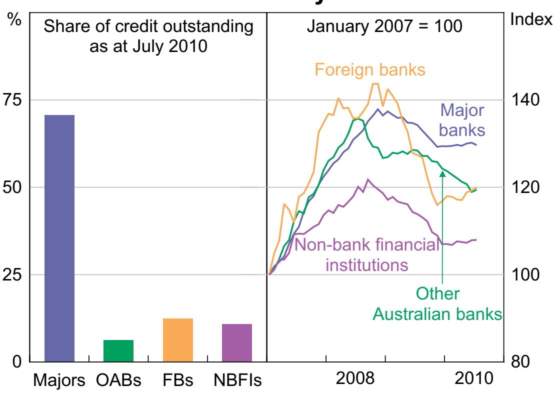
Banks have indicated that the interest rate spreads they are able to earn could come under some

Table 5: Australian Bank Claims on Euro Area Banks
Ultimate risk basis, as at 31 March 2010

		Share of:		
	Foreign claims	Total foreign claims	Total assets	Total capital
	$billion	Per cent	Per cent	Per cent
Greece	0.0	0.0	0.0	0.0
Ireland	1.7	0.3	0.1	1.0
Italy	1.0	0.2	0.0	0.6
Portugal	0.0	0.0	0.0	0.0
Spain	0.8	0.2	0.0	0.5
Euro area	**46.9**	**8.7**	**1.7**	**28.6**

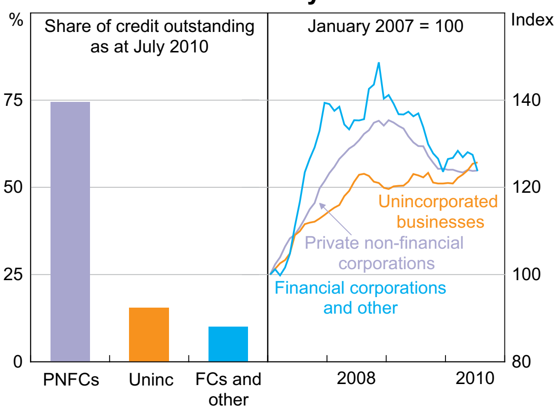
Source: APRA

Graph 34
Business Credit by Source*



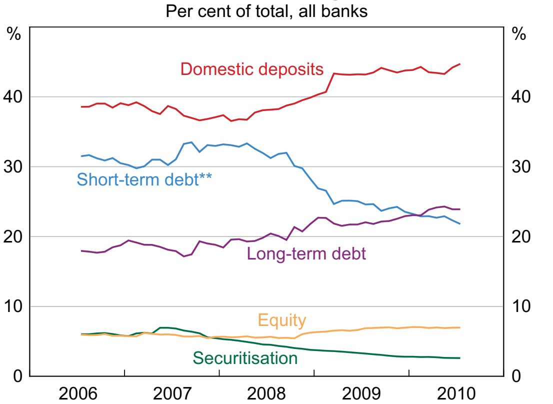
* Includes securitisation
Sources: APRA; RBA

Graph 35
Business Credit by Borrower



Sources: APRA; RBA

Graph 36
Bank Funding*
Per cent of total, all banks



* Adjusted for movements in foreign exchange rates
** Includes deposits and intragroup funding from non-residents
Sources: APRA; RBA

pressure as cheaper pre-crisis funding is replaced at current market rates, although estimates suggest that at current market yields this would probably have only a marginal effect over the coming year. Margins would also be compressed if the risk spreads on long-term funds were to rise substantially without being passed through to borrowing rates. Banks have shown little sign recently of further tightening non-price lending criteria as an alternative response. Indeed, some banks have recently eased housing lending standards by raising their maximum loan-to-valuation ratios and increasing the discount on some home loans.

In contrast to household credit, total business credit has been broadly flat since late 2009, following a period of contraction, suggesting that the process of corporate deleveraging may be nearing an end. While business credit extended by Australian-owned banks – which accounts for around three quarters of the total – has remained little changed, foreign banks appear to be growing their business loan books again after experiencing a more pronounced contraction in 2009 (Graph 34).

The renewed activity of foreign banks, together with continued improvement in capital markets, has seen competition intensify at the wholesale end of the intermediated business lending market since late 2009. Some banks have eased both price and non-price criteria in this segment, lowering margins and applying less restrictive loan covenants in recent quarters. However, commercial property exposures appear to be an exception to this, with some banks having tightened lending criteria further and others seeking to reduce their exposures by letting existing projects run off in light of the weaker asset quality for the segment (see above). By borrower, credit to private non-financial firms – which accounts for around three quarters of business credit – has been broadly unchanged over 2010 so far, following the period of significant deleveraging in 2009 (Graph 35).

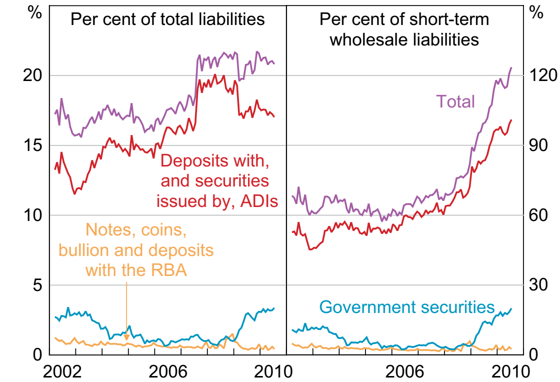
Funding Conditions and Liquidity

The funding position of the Australian banking system has strengthened in recent years, with less use of short-term finance and greater holdings of liquid assets. Banks have continued to access key funding markets after the Guarantee on Large Deposits and Wholesale Funding closed to new issuance in March, although the experiences of the major and smaller banks differ somewhat. Issuance has been at risk spreads considerably narrower than those prevailing in 2008 and early 2009. Risk spreads remain wider than during the pre-crisis period, although that was a period when risk, globally, was probably being underpriced.

In addressing liquidity risk, banks have in recent years been particularly focused on reducing reliance on short-term wholesale funding. Reflecting this, short-term wholesale debt as a share of total bank funding has fallen from around a third in 2006 to around a quarter, replaced by long-term wholesale debt and deposit funding sources typically regarded as more stable (Graph 36). Banks have also increased their holdings of liquid assets – such as cash, deposits and highly marketable securities – as a share of banks' total domestic liabilities. Liquid asset holdings remain well above pre-crisis levels (Graph 37). A larger share of liquid assets than before is now held as government securities, although the outstanding stock of these is much too small for Australian banks to meet the proposed international guidelines on liquidity management using government securities alone. As a result, alternative arrangements for Australia to meet the guidelines are currently being developed (see the chapter on 'Developments in the Financial System Architecture'). The ratio of liquid assets to short-term wholesale liabilities has continued to increase sharply as the latter have declined.

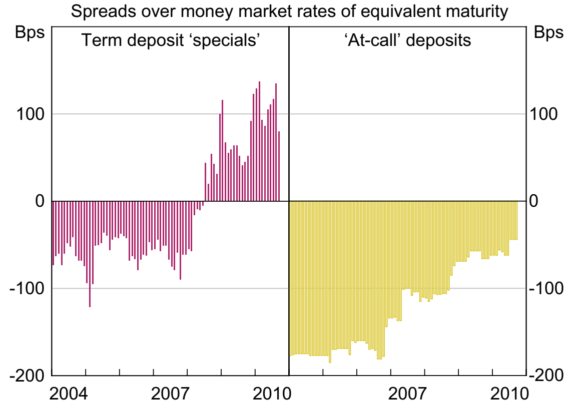
Growth in deposits in recent years has been fuelled by strong competition among authorised deposit-taking institutions (ADIs). In recent months, deposit rates have been at or around historically high spreads to money market rates, particularly for 'special' term deposit rates (Graph 38). Nevertheless, aggregate

Graph 37
Banks' Liquid Assets*
Domestic books



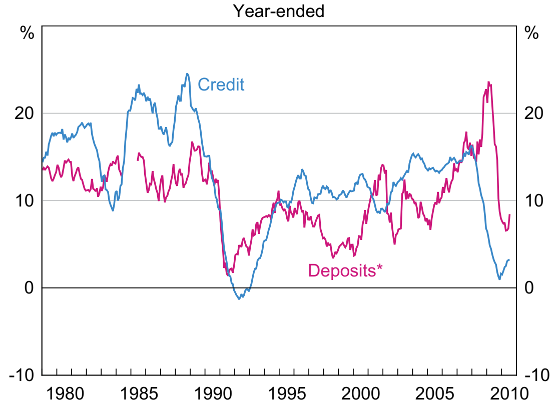
* Excludes non-resident assets
Source: APRA

Graph 38
Major Banks' Deposit Rates
Spreads over money market rates of equivalent maturity



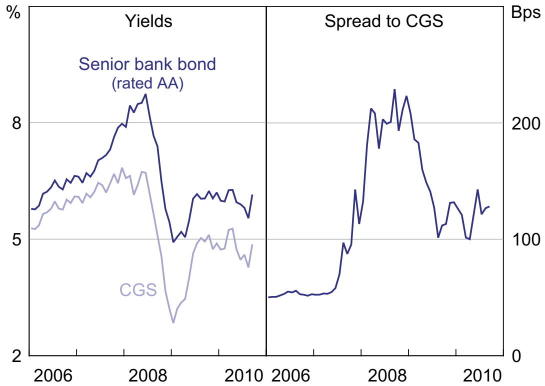
Sources: Bloomberg; RBA

Graph 39
Credit and Deposit Growth
Year-ended



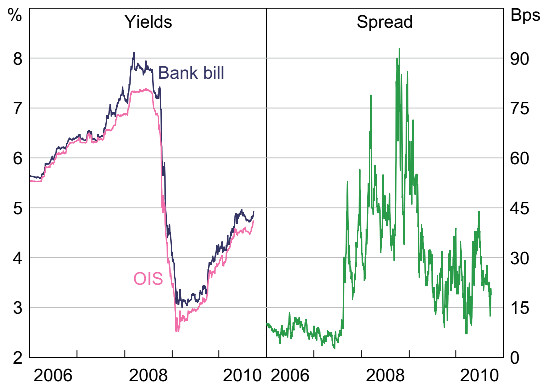
* Excludes certificates of deposit, government deposits, and foreign currency deposits; break in June 1984 due to change in reporting requirements; prior data are estimates
Source: RBA

Graph 40
Major Banks' Bond Pricing
3-year $A debt, monthly



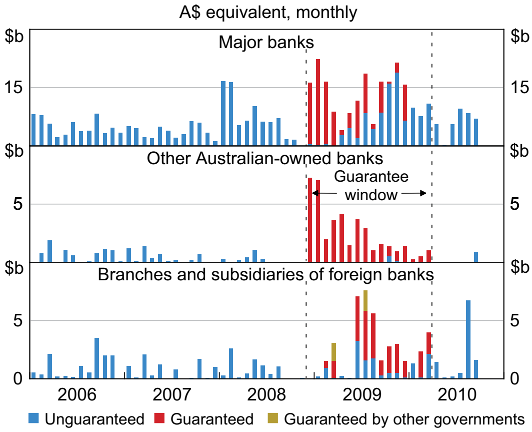
Sources: RBA; UBS AG, Australia Branch

Graph 41
3-month Interest Rates



Sources: RBA; Tullett Prebon (Australia) Pty Ltd

Graph 42
Bond Issuance
A$ equivalent, monthly



Source: RBA

deposit growth remains well below the rates of late 2008 and early 2009, consistent with the slower rate of credit growth (Graph 39). Given the increases in deposit rates relative to wholesale rates – and the free government guarantee for deposits of $1 million and under through the Financial Claims Scheme – some of the growth in deposits in recent years is likely to be replacing funding previously obtained through short-term wholesale instruments.

After improving significantly over the first half of 2009, conditions in both domestic and offshore long-term bank debt markets have stabilised somewhat. The major banks' domestic three-year bonds, for instance, have traded within a range of 100 to 145 basis points over Commonwealth Government Securities (CGS) since the middle of 2009, compared to around 200 basis points for most of 2008 (Graph 40). Spreads on three-month bank bills to the three-month overnight swap rate (OIS) have remained volatile over the past year or so, trading within a range of 5 to 45 basis points (Graph 41). This compares to spreads of over 90 basis points during the height of the crisis. The pricing of bank debt remains influenced by international developments and was noticeably affected as concerns about the fragility of the European financial sector resurfaced earlier this year.

In line with slower credit growth and significant earlier pre-funding, the rate of Australian bank bond issuance has slowed in 2010, from the very strong pace of 2009 when the guarantee scheme for wholesale funding was in operation (Graph 42). The major banks held back from large-scale issuance of long-term debt when concerns around European sovereign debt escalated in April and May, though issuance has picked up again since that time.

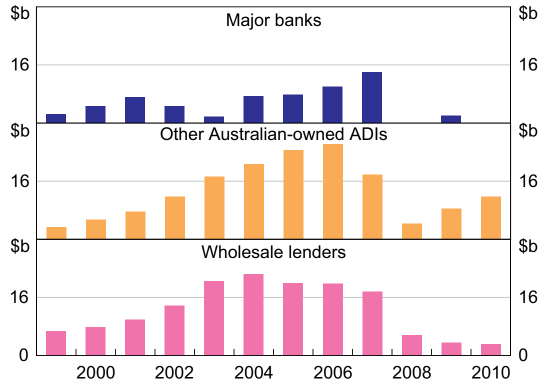
A number of smaller institutions had made considerable use of the wholesale funding guarantee, as difficult conditions curtailed the funding previously available through securitisation in the form of residential mortgage-backed securities (RMBS) (Graph 43). Conditions in RMBS markets have improved but are still challenging, with secondary market spreads on AAA-rated RMBS tranches having remained at around 140 basis points above the three-month bank bill swap rate since March. Smaller institutions have accounted for the bulk of issuance over the past six months, with the support of the Australian Office of Financial Management (AOFM). The AOFM has purchased around one quarter of RMBS issuance in 2010 to date, compared with almost half of all issuance in the period from when the program commenced to the end of 2009. The AOFM's holdings now represent around 10 per cent of all RMBS outstanding, or around 15 per cent of the total domestic market. No losses have been borne by investors in a rated tranche of an Australian prime RMBS. Credit enhancements such as lenders' mortgage insurance continue to fully cover any losses on prime RMBS (after proceeds from property sales).

Conditions in the shorter-term securitisation markets remain particularly subdued. The amount of asset-backed commercial paper (ABCP) outstanding has continued to decline, reflecting the ongoing amortisation of existing loan pools (i.e. loan repayments), as well as some reduction in the supply of assets typically funded by ABCP, such as lending by mortgage originators (Graph 44). However, market participants report that they continue to have little difficulty rolling over paper, and ABCP spreads have fallen noticeably, to be around 30 basis points above the one-month bank bill swap rate (BBSW).

Capital and Financial Markets' Assessment

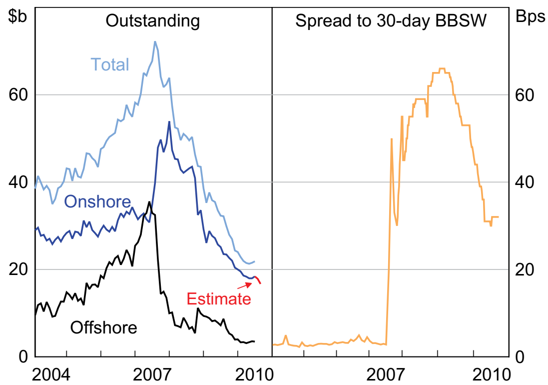
The Australian banking system maintains its strong capital position. The Tier 1 capital ratio is currently around 9½ per cent, well above the regulatory minimum of 4 per cent (Graph 45). The credit union and building society sectors are also well capitalised, with aggregate total capital ratios of around 16 per cent. Ordinary share capital has increased a little in the past six months, mostly through dividend reinvestment plans (Graph 46). As a result, ordinary

Graph 43
RMBS Issuance



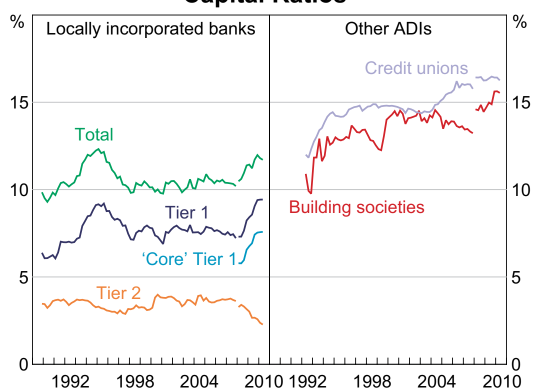
Source: RBA

Graph 44
Asset-backed Commercial Paper



Sources: Austraclear; nabCapital; RBA; Standard & Poor's

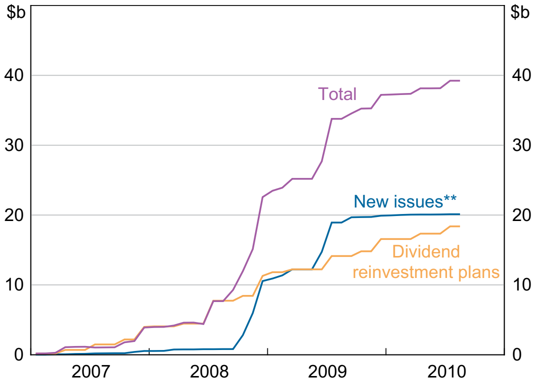
Graph 45
Capital Ratios*



* Per cent of risk-weighted assets; break in March 2008 due to the introduction of Basel II for most ADIs

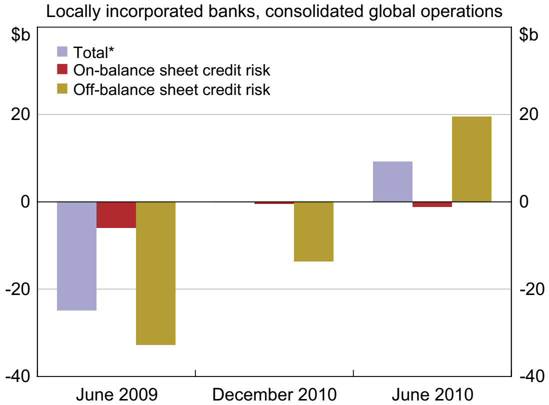
Source: APRA

Graph 46
Major Banks' Equity Raisings*
Cumulative from 1 January 2007



* Includes St. George; excludes raisings specifically used to fund acquisitions
** Includes new placements and employee share purchase plans
Source: ASX

Graph 47
Change in Risk-weighted Assets
Locally incorporated banks, consolidated global operations



* Includes credit risk, market risk, operational risk, and other risk-weighted assets
Source: APRA

share capital represents more than two thirds of total net capital for the banking system. The available data for the September quarter suggest that the phase of rising bank capital buffers may have run its course for the time being. The major banks raised little new equity during the past two quarters and have all increased dividends paid out to shareholders.

In recent years, banks have focused on bolstering their Tier 1 capital, and in particular their 'core' capital (mainly common equity), while allowing their Tier 2 capital to decline. Since Tier 1 capital absorbs losses while a bank continues to operate as a 'going concern', Tier 2 capital (mainly subordinated debt) is becoming less relevant for financial stability as it is generally only available to absorb losses on a 'gone concern' basis, that is, in a wind-up.[2]

An important feature of the recent market downturn in Australia was that most credit losses were small enough to be absorbed by banks' revenue and modest when compared with the buffer of capital. Furthermore, the quality of capital held by Australian banks appears to compare favourably with banks in other countries. The Australian Prudential Regulation Authority (APRA) recently subjected the 20 largest ADIs to a very severe three-year macroeconomic stress test, and found the adequacy of capital to be resilient, with no institution failing or breaching the minimum 4 per cent floor in Tier 1 capital ratios under the scenario.[3] The scenario assumed that macroeconomic conditions and asset prices deteriorated by more than in overseas scenarios, so bad and doubtful debt charges rose quite sharply; the largest banks also suffered from the pro-cyclicality inherent in rating migrations of risk-weighted assets.

Following a period of generalised risk retrenchment, the risk-weighted assets of banks increased in the first half of the year (Graph 47). The rise was driven by off-balance sheet credit exposures, which comprise commitments, credit guarantees, letters of credit and other contingent facilities.[4] The increase was partly related to a change in the methodology used to calculate risk-weighted assets for some portfolios.[5] The rise may also be related to corporates repaying

2 See also Gorajek and Turner (2010), 'Australian Bank Capital and the Regulatory Framework', RBA *Bulletin*, September.

3 John Laker (2010), 'The Australian Banking System under Stress?', speech to Australian Business Economists, 9 June.

4 These exposures are off-balance sheet because at the balance sheet date they are contingent. Once the contingent event occurs, the item moves onto the balance sheet as an asset.

5 In particular, some portfolios were migrated from the Standardised approach to the Internal Ratings-based (IRB) approach to calculating regulatory capital. Under the Standardised approach banks use a pre-scribed set of risk weights, while under the IRB approach banks are authorised to use their own models to determine the key inputs in the credit risk calculation.

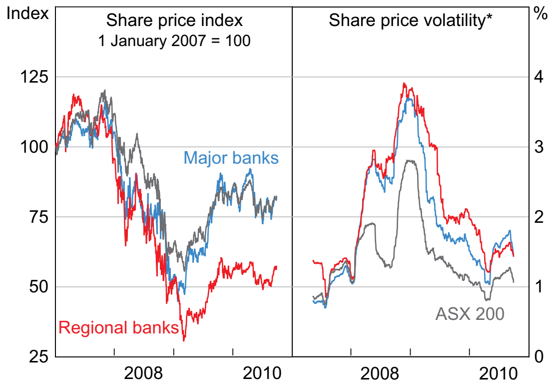
credit lines previously drawn upon. As corporates deleverage and repayments are made on credit lines, on-balance sheet amounts decline and available off-balance sheet facilities increase. In contrast, on-balance sheet credit risk-weighted assets, which comprise about 70 per cent of the total, remained little changed, possibly reflecting that new lending and draw-downs offset any repayments of credit lines. Average risk-weights for loans applied by the major banks remained fairly steady during the period and exposures to market and operational risks continue to be modest.

After experiencing a strong rebound during 2009, Australian bank share prices have remained in a range for the past three quarters (Graph 48). However, there has been some variability in line with developments in Australian and offshore markets. Analysts generally remain upbeat about the Australian banking sector given recent profit results, but some remain cautious about the potential for further slowing in credit growth and the implications for short-term earnings.

Investors' concerns about euro area sovereign debt, along with doubts about the global economic recovery, were reflected in an increase in share price volatility around the middle of the year. Despite this increase, volatility remains significantly lower than during the most stressed periods in the crisis. Some uncertainty has also been reflected in a moderate increase in Australian banks' credit default swaps (CDS) premia – the price paid by investors to insure against default on bank debt – though no more than was seen abroad.

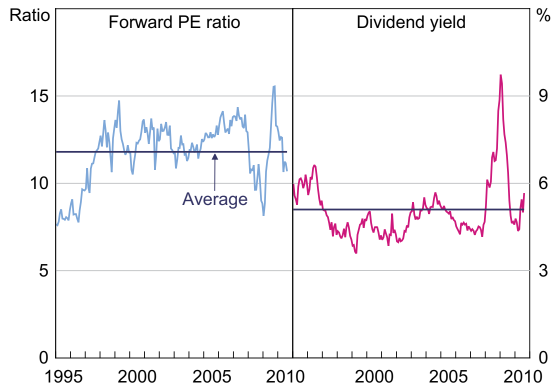
Market-based valuation measures are closer to their long-term averages than in recent years (Graph 49). After a strong increase during 2009, driven by higher share prices, the forward price-to-earnings (PE) ratio has declined as the outlook for earnings improved and share prices stopped rising. Similarly, the dividend yield – the amount paid out in dividends relative to the share price – has increased during the year as banks have increased their dividend payments.

Graph 48
Financial Market Indicators



* Rolling 90-day standard deviation of daily returns
Sources: Bloomberg; RBA

Graph 49
Indicators of Bank Valuation



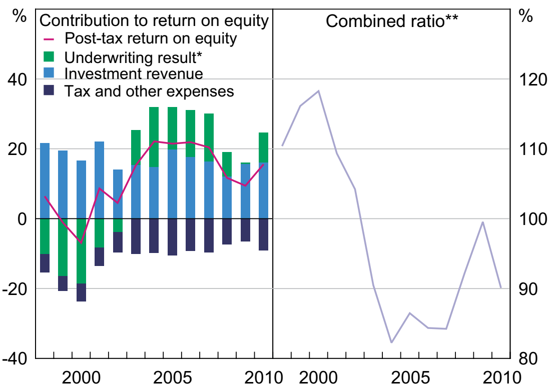
Source: Thomson Reuters

The major banks remain highly rated by international credit rating agencies. Using Standard & Poor's ratings, the major banks are AA-rated, while the other Australian banks are ranked between upper-medium and lower-medium investment grade. Recently, Standard & Poor's revised up the outlook from 'negative' to 'positive' for HSBC Bank Australia. Standard & Poor's outlook for Australian banks is largely stable, based on expectations of sound macroeconomic conditions, strong earnings and conservative lending standards.

General Insurance

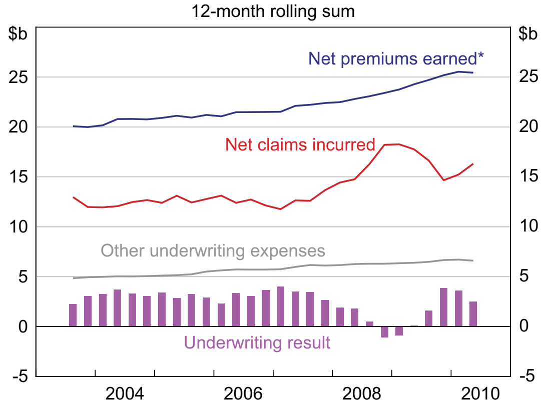
The Australian insurance industry reported strong profits in the latest year. Post-tax profits were $4.6 billion in the year to June 2010, up from $2.6 billion in the previous year, and reflecting this the industry's return on equity was 16 per cent in the latest year, broadly in line with the average over the past decade (Graph 50). This result was driven by improved underwriting conditions. Insurers' aggregate combined ratio – claims and underwriting expenses relative to net premium revenue – fell to 90 per cent in 2010, which is more in line with the ratio between 2003 and 2006.

Graph 50
Performance of General Insurers
Year-ended June



* Premium revenue (net of reinsurance expenses) minus claims and underwriting expenses
** Claims and underwriting expenses as a per cent of net premium revenue
Source: APRA

Graph 51
General Insurers' Underwriting Operations
12-month rolling sum



* Premium revenue (net of reinsurance expenses)
Source: APRA

The strong underwriting result in the latest year was due to both higher premium revenue and a fall in claim expenses, though these trends show signs of turning in the latest quarter or so (Graph 51). The rise in revenue was largely attributable to continued premium rate increases (particularly within some personal lines), albeit at a slower pace than in earlier years – the insurance services consumer price index (CPI) shows that the cost of insurance to consumers increased by around 5 per cent over the year to June 2010. In addition, there were some signs that more households were taking out insurance policies in the latest year, mainly in response to recent severe weather events.

The latest annual decline in claim expenses was largely a reversal of the elevated claim expenses in the 2008/09 financial year that resulted from a sharp fall in government bond yields used to discount expected future claims. Despite the fall, claim expenses in the latest year were still above the average over the decade and the latest quarterly data show them drifting up again. One reason for this was the effect of severe weather events, particularly in the half-year to June 2010. These included the Melbourne and Perth storms in March 2010, which are estimated to have caused around $2 billion in insured losses. In the period ahead, the Australian insurance industry is likely to incur claims relating to the recent Victorian floods and the New Zealand earthquake. It is unlikely, however, that the New Zealand earthquake will result in significant claims, as the Australian insurance industry is not significantly exposed to New Zealand.

In addition to the positive annual underwriting result, income from investments increased by $0.5 billion to around $5 billion over the year to June 2010. The increase was largely due to a rise in prices on fixed-income securities, as government bond yields fell in the half-year to June 2010, and this offset lower interest income. Investment income was not greatly affected by the disruption to equity markets in 2010, as equities only accounted for around 5 per cent of general insurers' investment assets at June 2010.

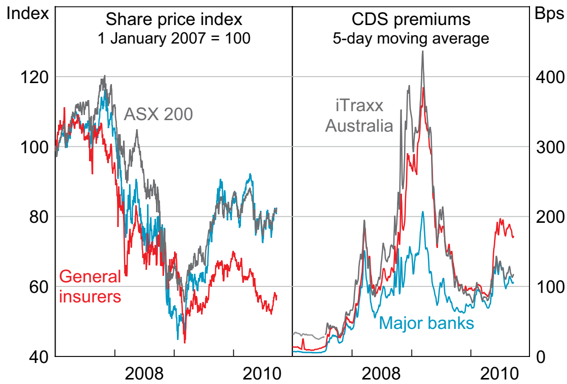
The general insurance industry remains soundly capitalised, holding around double the regulatory minimum as at March 2010 (the latest available data). APRA is in the process of reviewing the capital standards of insurers, with an aim of making the capital framework more risk sensitive. The new proposed framework encompasses a three-pillar system, similar to what is already in place for banks, which will improve the dissemination of data to the market. Prescribed capital requirements for general insurers will also be revised and there will be increased scope for supervisory adjustments to account for any insurer-specific risks. APRA has already begun liaising with the industry, and has a schedule to implement the revised standards in 2012.

The credit ratings of the four largest general insurers' Australian operations remain high, with all rated A+ or higher by Standard and Poor's. However, share prices of the largest listed Australian insurers have fallen by around 20 per cent from the recent peak in January 2010 (Graph 52). This appears to be mainly due to investors factoring in the effects of increased claims, less favourable trading updates by some large insurers in mid 2010, and some caution about future growth prospects. In line with the movements in share prices, the insurers' CDS premia have increased slightly in recent months.

A significant share of Australian insurers' reinsurance cover is provided by several large global reinsurers, who have reported a rise in profits in the past year despite a large number of catastrophe events. Their credit ratings remain high and analysts generally expect them to remain profitable.

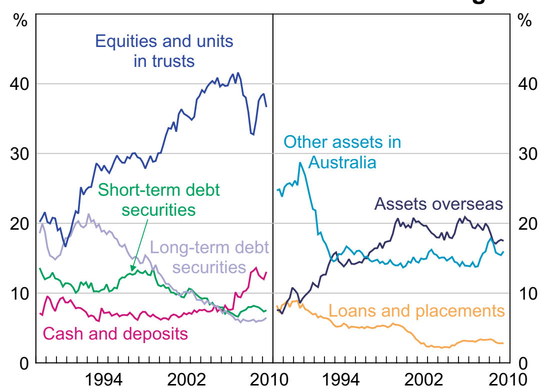
Operating conditions for the two largest providers of lenders' mortgage insurance (LMI) in Australia – QBE and Genworth – appear to have improved. Both reported a decline in claim ratios over the past year, with part of this likely due to prior efforts by these insurers to improve their underwriting standards. As a result, the Australian mortgage insurance operations of QBE and Genworth continue to be rated highly, with credit ratings of AA- from Standard and Poor's accompanied by stable outlooks.

Graph 52
Financial Market Indicators



Sources: Bloomberg; JPMorgan; RBA

Graph 53
Allocation of Domestic Funds Under Management*



* Funds under management are on a consolidated basis; excluding 'Assets overseas', individual asset types represent investments in Australia
Source: ABS

Managed Funds

Growth in assets held by domestic funds management institutions slowed in the latest half-year. Total assets remained little changed over the six months to June 2010, compared to growth of 23 per cent over the December 2009 half-year (Table 6). Assets at superannuation funds, which account for around 65 per cent of total assets under management, increased over the latest half-year, while total assets fell at all the other fund managers. Holdings of equities and units in trusts fell considerably over the June 2010 half-year, in part due to the volatility in markets earlier in 2010 (Graph 53). This fall was offset by increases in cash and deposits, long-term securities and other assets in Australia.

Table 6: Assets of Domestic Funds Management Institutions[(a)]
June 2010

	Level	Share of total	Six-month-ended annualised change	
	$billion	Per cent	Dec 09 Per cent	Jun 10 Per cent
Superannuation funds (consolidated)	**872**	**65**	**31.5**	**3.4**
Superannuation funds (unconsolidated)	1035		30.9	2.4
of which:				
Equities	*315*	*30*	*55.4*	*–9.5*
Assets overseas	*173*	*17*	*32.7*	*2.9*
Cash and deposits	*171*	*17*	*1.6*	*11.4*
Units in trusts	*144*	*14*	*32.7*	*1.0*
Other assets in Australia[(b)]	*106*	*10*	*8.1*	*19.3*
Short-term securities	*58*	*6*	*46.7*	*4.4*
Long-term securities	*57*	*5*	*26.7*	*22.7*
Loans and placements	*10*	*1*	*29.4*	*12.0*
Life insurers[(c)](consolidated)	**177**	**13**	**24.8**	**–4.9**
Public unit trusts (consolidated)	**256**	**19**	**8.3**	**–2.6**
Public unit trusts (unconsolidated)	295		15.0	–0.8
of which:				
Listed property trusts	*123*	*41*	*–0.4*	*–0.2*
Unlisted equity trusts	*100*	*34*	*70.5*	*2.0*
Listed equity trusts	*45*	*15*	*–10.9*	*–6.0*
Other trusts	*28*	*9*	*–1.8*	*–4.2*
Other managed funds[(d)] (consolidated)	**46**	**3**	**–23.0**	**–8.9**
Total (consolidated)	**1 351**	**100**	**22.9**	**0.7**
of which:				
All superannuation assets[(e)]	1 030		30.8	2.0

(a) Excluding funds sourced from overseas, government, other trusts, general insurance and 'other' sources
(b) Includes non-financial assets
(c) Includes superannuation funds held in the statutory funds of life insurers
(d) Cash management trusts, common funds and friendly societies
(e) Superannuation funds plus an estimate of the superannuation assets held in the statutory funds of life insurers
Sources: ABS; RBA

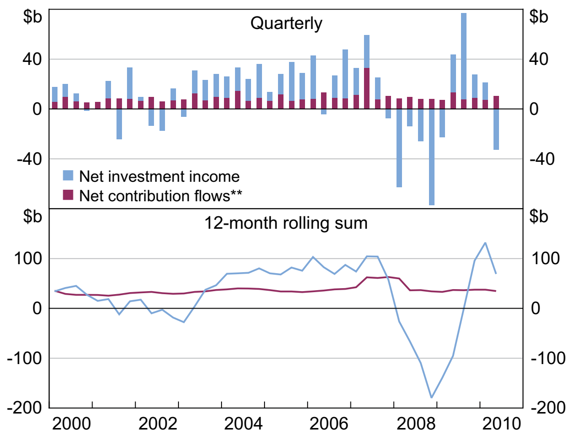
Several regulatory reviews were released in the past year that may have implications for the managed funds sector. The Inquiry into Financial Products and Services in Australia addressed strengthening the framework of the funds management industry as a whole. Recommendations from the Super System Review and the Report on Australia's Future Tax System were more specific to the superannuation industry. Details of any changes to flow from these reports, however, are yet to be determined.

Superannuation Funds

Superannuation funds' consolidated assets under management rose at an annualised rate of 3½ per cent over the six months to June 2010, down from around 30 per cent for the December 2009 half-year. The subdued growth in the latest half-year was due to a 10 per cent fall in equity holdings, which make up the largest share of unconsolidated superannuation assets. This fall was in part due to the decline in the value of equity holdings in early 2010. More than offsetting the fall were the increases in all other asset categories, with long-term securities and other assets experiencing the strongest growth.

Superannuation funds recorded a $70 billion gain on their investment portfolios over the year to June 2010, which was in line with pre-crisis experiences (Graph 54). This compared to losses of $95 billion in the previous year. Investment income, however, was affected by the market disruption in the June quarter 2010 as losses resulted from the fall in equity prices. Inflows to superannuation funds over the year were broadly steady at rates similar to those of recent years.

Graph 54
Superannuation Funds' Financial Performance*



* From December 2004, data cover entities with at least $50 million in assets
** Total contributions received by funds plus net rollovers minus benefit payments
Source: APRA

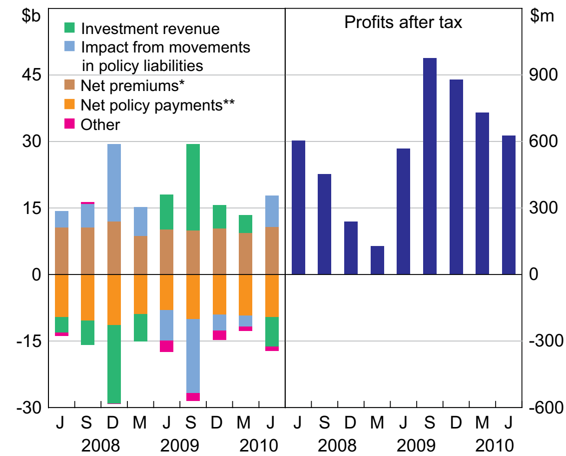
Life Insurers

Life insurers' consolidated assets fell at an annualised rate of 5 per cent over the six months to June 2010, compared to an increase of around 25 per cent in the December 2009 half-year. Life insurers' superannuation businesses continue to account for around 90 per cent of total assets.

Life insurers recorded an aggregate loss from investments of $2½ billion in the six months to June 2010, compared to a gain of $25 billion in the December 2009 half-year (Graph 55). These results were in line with the general trajectory of markets. Despite the large fall in investment income, the fall in profits was relatively small as policyholders bore most of the losses. Post-tax profits were $1.4 billion for the half-year to June 2010, down from $1.9 billion in the December 2009 half-year. The contribution to profits from net premium income and net policy payments remained fairly stable over the year to June 2010.

Life insurers' capital position remained broadly stable over the year, with the industry holding 1.5 times the regulatory minimum as at June 2010; as for general insurers, though, APRA is in the process of revising the capital standards for life insurers. One of the main proposals is to replace the current solvency and capital requirements with a new single measure of capital.

Graph 55
Life Insurers' Financial Performance



* Sum of net policy revenue, premium related fees and net policy revenue recognised as a deposit
** Sum of net policy expenses and net policy expenses recognised as a withdrawal
Source: APRA

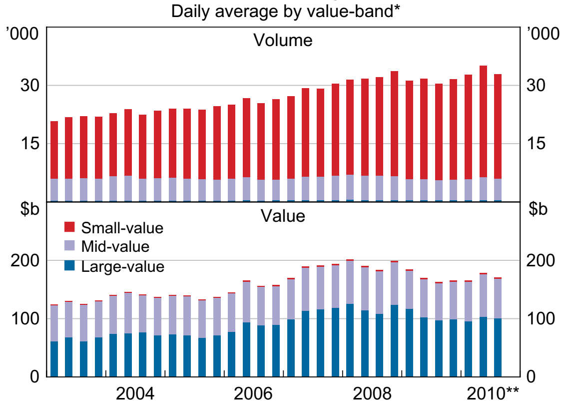
Public Unit Trusts and Other Managed Funds

Outside of superannuation funds and life offices, the bulk of assets under management are invested in public unit trusts. On a consolidated basis, public unit trusts' assets fell at an annualised rate of around 2½ per cent over the six months to June 2010, compared to an increase of 8 per cent in the December 2009 half-year. The fall in the latest half-year was largely attributable to the assets of listed equity trusts, which fell at an annualised rate of 6 per cent, to be around 20 per cent below its late 2007 peak at June 2010. The assets of unlisted equity trusts and listed property trusts remained broadly stable in the recent half-year.

Market Infrastructure

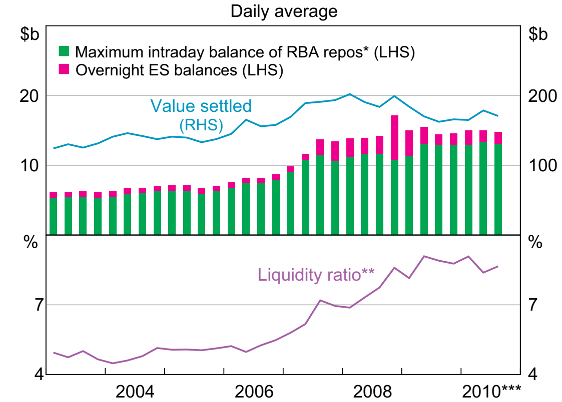
Australia's payment system infrastructure continues to perform smoothly. The volume of transactions processed by the infrastructure has now largely returned to normal after having declined during the crisis period. Some of the changes to participant behaviour and system risk controls that resulted from the heightened risks during the crisis have been unwound. Risks faced by the central counterparties increased somewhat towards the middle of 2010, however, due to higher volatility resulting from concerns regarding European public debt and the 'flash crash' in the US equity market, discussed in the chapter on 'The Global Financial Environment'. Nevertheless, these risks remain well below those experienced in late 2008 and early 2009.

Graph 56
RITS Settled Payments
Daily average by value-band*



* Small-value payments are less than $1 million, mid-value payments are from $1 million to $100 million and large-value payments are greater than $100 million
** September 2010 is quarter to date
Source: RBA

Graph 57
RITS Peak Liquidity
Daily average



* Estimated by the maximum intraday cumulative balance of first leg RBA repos less second leg RBA repos
** Measured as RITS peak liquidity over value settled as a percentage
*** September 2010 is quarter to date
Source: RBA

In Australia, high-value transactions settle on a real-time gross settlement (RTGS) basis through the Reserve Bank Information and Transfer System (RITS). Settlement activity in RITS has picked up in recent quarters (Graph 56). Daily average transaction volumes have now recovered to their pre-crisis levels, reaching a new peak in June 2010. Although average daily values grew strongly in the second quarter of 2010, they currently remain more than 14 per cent below the previous peak in the final quarter of 2008. This is due to lower settlement activity in the relatively small number of large-value payments (over $100 million).

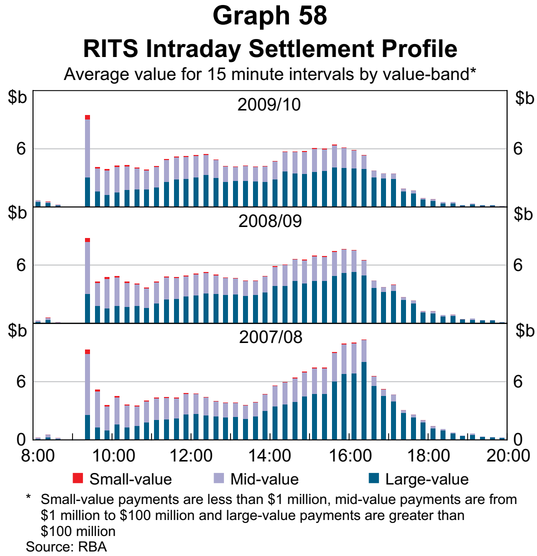
Settlement of RTGS transactions occurs across Exchange Settlement (ES) accounts held at the Reserve Bank. RITS daily peak liquidity – as measured by the sum of overnight ES balances and maximum intraday repurchase agreements with the Reserve Bank – increased in late 2008, following the collapse of Lehman Brothers (Graph 57). While this increase in liquidity coincided with a peak in RITS transaction values, it also reflected that RITS participants were demanding more liquidity in the face of the market uncertainty. System liquidity has since declined, and has remained steady over recent quarters. However, even after accounting for the increase in settlement activity during the June quarter 2010, liquidity remains high relative to historical averages on this measure.

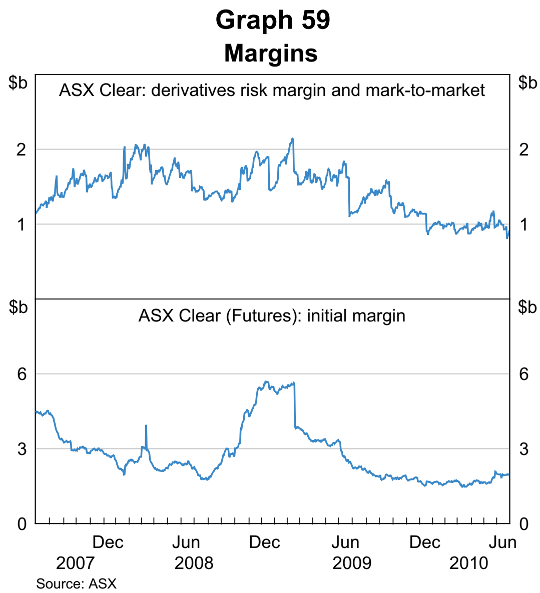
Ample system liquidity has allowed payments to continue to settle in a timely, orderly way. Indeed, the value of payments being settled has become more evenly distributed throughout the day over recent years. In particular, the value of payments being settled late in the day has fallen noticeably (Graph 58).

Clearing of transactions in equity and derivative markets in Australia is conducted by two central counterparties, ASX Clear and ASX Clear (Futures).[6] By novation of transactions to the central counterparties – i.e. replacement of the initial contracts between counterparties with two new contracts between the central counterparty and each of the initial counterparties – the risk arising from counterparty default is transferred to the central counterparty. As a result, the robustness of central counterparties' risk controls is a key focus of their regulators. In Australia, the Reserve Bank is the regulator for stability purposes. Both Australian central counterparties appropriately adjusted their risk controls during the crisis period and subsequent recovery, and have functioned smoothly throughout.

As financial markets and risk appetite recovered, the volume of equities and derivatives transactions processed by the central counterparties increased strongly in 2009/10. Even though trading activity increased, both ASX Clear and ASX Clear (Futures) generally reduced initial margin rates for derivatives over 2009/10, reflecting the decline in risk as market volatility declined (Graph 59). However, following the concerns arising out of the ongoing financial fragilities in some European countries and the 'flash crash', central counterparties adjusted some of their risk controls by increasing stress-test parameters, raising margin rates, and removing discounting of additional cover required on large potential exposures identified through stress testing. Combined with the increase in activity, these adjustments resulted in a moderate increase in average initial margin held at ASX Clear (Futures) over the second quarter of 2010, although margin held at ASX Clear remained steady. The number of intraday margin calls also increased at both central counterparties.

6 Prior to 1 August 2010, the two central counterparties were known as Australian Clearing House (ACH) and SFE Clearing Corporation (SFECC).





Box B

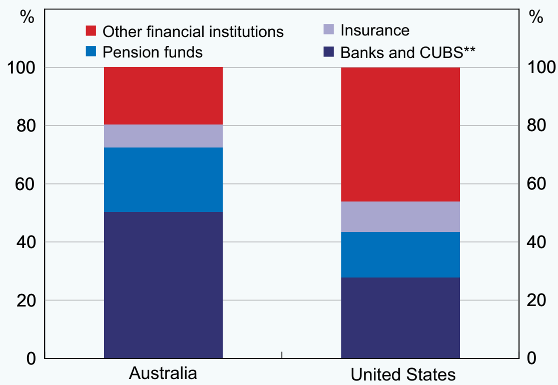
The Shadow Banking System in Australia

The financial crisis in the United States was propagated in part by institutions in the so-called 'shadow' banking system. These institutions – including investment banks, structured investment vehicles (SIVs) and money market mutual funds – were typically subject to less regulation than the traditional core of the financial system. Events revealed that a number of these institutions were not holding sufficient capital or liquid assets for the risks that they were taking, and their weakness soon spread more widely throughout the financial system. Other 'shadow' institutions, including firms whose activities may not be well-defined (such as hedge funds and commodity trading accounts), were not especially implicated in the recent crisis. Nonetheless, they can be highly leveraged and closely interconnected with the rest of the financial system, and therefore have the potential to amplify and propagate stresses.

Graph B1

Financial Sector Composition*

Share of total financial assets of the sector



* As at 30 June 2010; excludes the central bank and central borrowing authorities

** For the US, these comprise commercial banks, savings institutions and credit unions

Sources: ABS; APRA; Board of Governors of the Federal Reserve System; RBA

Intermediaries outside the core of the financial system also exist in Australia, but they account for a much smaller share of financing. Eighty per cent of the Australian financial sector by assets comprises banks, credit unions and building societies (CUBS), pension funds and insurers, all of which are prudentially regulated by the Australian Prudential Regulation Authority (APRA) (Graph B1).[1] In comparison, these types of institutions account for only around one half of the financial sector in the United States. Institutions that are not prudentially regulated (though they may be subject to market conduct or consumer protection legislation) consequently form a larger part of the financial system in the United States than in Australia. In addition, non-bank intermediaries in Australia do not undertake the same types of activities as those in the United States. In part reflecting these factors, these Australian intermediaries did not transmit the same kinds of shocks to the system during the recent financial crisis as in some other countries.

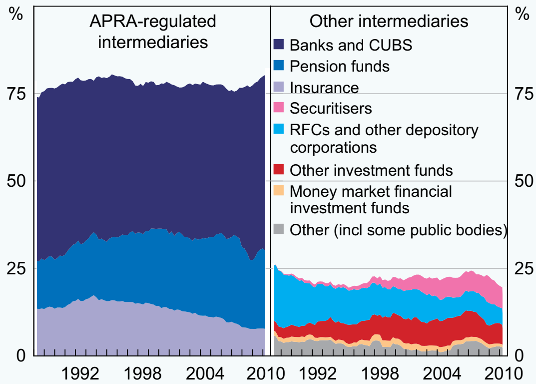
Data collected by the Australian Bureau of Statistics (ABS) show that the relatively small proportion of financial assets accounted for by the less-regulated sectors has declined since 2007 (Graph B2). Indeed, registered financial corporations' (RFCs') share of financial system assets – and credit provision – has been declining for the past two decades, as the regulated sectors outpaced their growth. In contrast, sectors such as managed funds and securitisers

1 For an overview of institutions in the Australian financial system, see RBA (2006), 'The Structure of the Australian Financial System', *Financial Stability Review*, March, pp 49–61.

experienced higher growth relative to the financial system for much of the 1990s and early 2000s, but they too have since declined in importance. Securitisers' earlier relative growth was driven by the higher demand for housing finance and the activities of smaller lenders (such as specialist mortgage originators) that are more reliant on securitisation as a source of funding. Their share of the financial system has declined since the onset of the financial crisis, following the strains in securitisation markets globally.

The ABS data also help identify linkages between the regulated and less-regulated parts of the financial system through the exposures between sectors (Table B1). For instance, securitised assets can be redistributed within the financial system when

Graph B2
Financial Sector Composition*
Share of total financial assets of the sector



* Excludes the RBA and central borrowing authorities
Sources: ABS; APRA; RBA

Table B1: Financial Sector Inter-linkages(a)
Per cent of total exposure to the domestic financial sector as at 30 June 2010

	Exposure of: APRA-regulated intermediaries			Other financial intermediaries(c)
	Banks and CUBS(b)	Pension funds	Insurance	
Exposure to:				
Banks and CUBS(b)	–	46	29	75
Pension funds	0	–	0	1
Insurance	7	28	–	3
RFCs and other depository corporations	26	1	2	4
Money market financial investment funds	0	2	1	0
Other investment funds	8	17	65	8
Securitisers	57	2	2	5
Other financial corporations (including some public sector bodies)	2	3	2	4
Memo item: exposure to the domestic financial sector as per cent of total financial assets	*12*	*58*	*64*	*23*

(a) Excludes the RBA and central borrowing authorities
(b) Figures for CUBS are estimated from the ABS category of 'other depository corporations', which includes CUBS, RFCs and other depository corporations
(c) Comprising RFCs, other depository corporations, investment funds, securitisers and other financial corporations (including some public sector bodies)
Sources: ABS; APRA; RBA

institutions buy each others' asset-backed securities. This explains most of banks' exposures to securitisers. Managed funds dominate the financial exposure of the insurance sector, while pension funds are exposed mostly to APRA-regulated intermediaries. On the other hand, the less-regulated sectors have limited direct exposures to each other, and are instead predominantly exposed to banks.

Australian regulators have recently increased some of the regulation of these 'shadow' banking institutions. For instance, providers of consumer credit services must now be licensed by the Australian Securities and Investments Commission, which imposes certain obligations on these institutions; the regulatory coverage of credit products under the National Consumer Credit Code has been expanded to include investor-housing mortgages; and the operation of the *Corporations Act* has been extended to regulate margin lending. In the international context, work is also in progress to expand the 'regulatory perimeter'. Based on recommendations by the G-20 and principles set by the International Organization of Securities Commissions, a number of major economies are working towards increased regulatory oversight of hedge funds and credit rating agencies, and a higher ownership retention requirement for securitisers so that incentives are better aligned. Efforts are also under way to improve cross-border supervision of financial services providers outside the traditional banking system, and to standardise data collection for hedge funds across markets. Australian agencies are following these developments through participation in various international regulatory groupings.

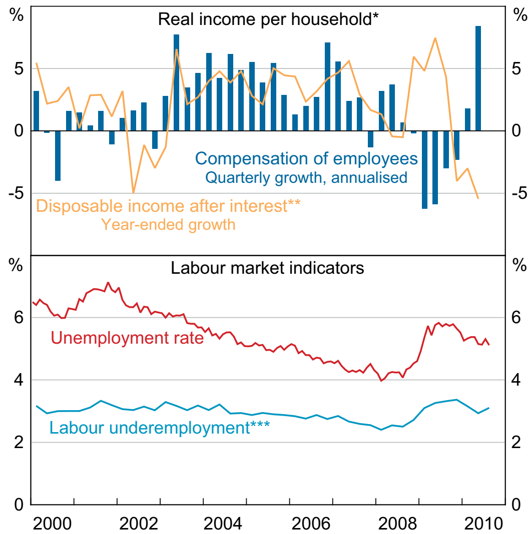
Household and Business Balance Sheets

The aggregate financial position of the household and business sectors remains sound, with economic growth boosting employee incomes and profits as support from policy measures wanes. These developments should in turn limit further increases in indicators of financial stress, which remain fairly low compared with previous downturns and international experience. Households and businesses continue to exhibit a somewhat more cautious approach to debt than prior to the crisis, and there are signs that the housing market has cooled. For businesses, debt funding availability for most sectors appears to be improving a little after a marked tightening in supply in 2008 and 2009.

Household Sector

Over the past year the financial position of households has been subjected to divergent forces. The weaker labour market associated with the economic slowdown over 2008 and 2009 weighed on employment income, though with fiscal and monetary policy measures more than offsetting this weakness, real disposable income per household grew at an annual rate of around 5 per cent over much of 2009 (Graph 60). More recently, employment income has bounced back strongly, but the unwinding of stimulatory policy measures has subtracted from disposable income, which on a real per household basis declined around

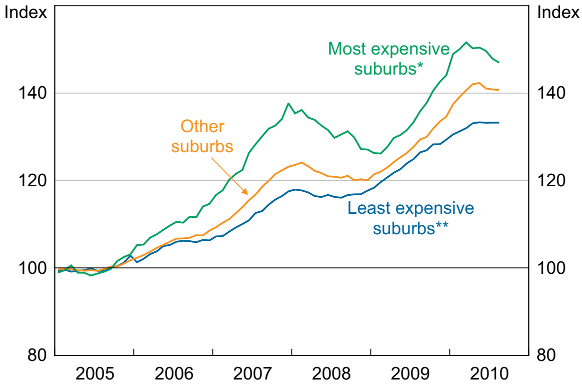
Graph 60
Household Incomes and Labour Market



* Excludes unincorporated enterprises
** Data are smoothed using a two-quarter moving average between March 2000 and March 2002
*** Full-time workers on reduced hours and part-time workers looking for more hours, as a share of the labour force; data are mid-month of quarter
Sources: ABS; RBA

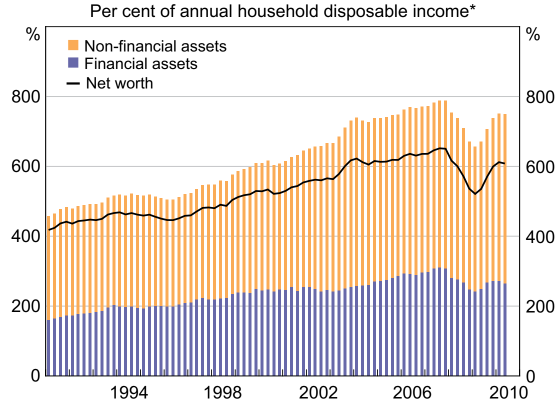
5 per cent in the year to June 2010. During the first two quarters of the year income from employment increased at an average annualised rate of 5 per cent, and strength in this income source looks likely to continue: labour market conditions have continued to firm and forward-looking indicators – such as job advertisements and hiring intentions – are positive.

Graph 61
Capital City Dwelling Prices
2005 = 100, seasonally adjusted



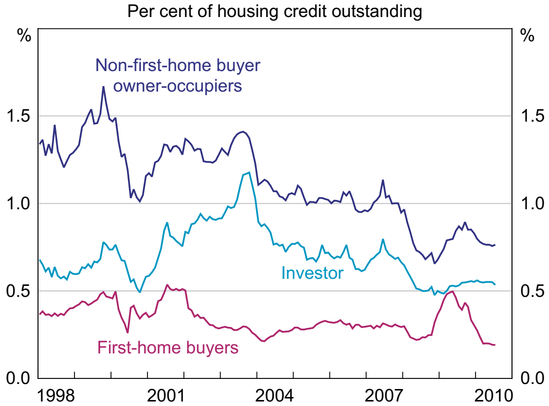
* Most expensive 20 per cent of suburbs
** Least expensive 20 per cent of suburbs
Sources: RBA; RP Data-Rismark

Graph 62
Household Assets and Net Worth
Per cent of annual household disposable income*



* Before the deduction of interest payments; includes unincorporated enterprises
Sources: ABS; RBA

Graph 63
Housing Loan Approvals*
Per cent of housing credit outstanding



* Excludes owner-occupier refinancing and investor approvals for new construction and by 'others'
Sources: ABS; RBA

On the assets side of household balance sheets, growth in dwelling prices has tapered off in recent months, particularly in more expensive suburbs; even so, median dwelling prices were still around 4 per cent higher in August than at the start of the year (Graph 61). The household sector's asset position has also been bolstered by ongoing accumulation of financial assets, though recent declines in share prices have been a drag on households' wealth; since the end of 2009 the ASX 200 index has fallen by around 4 per cent, and remains around 32 per cent below its late 2007 peak. In June, household net worth was around six times annual disposable income, around the same as at the start of the year, and a substantial recovery from the trough in March 2009 (Graph 62).

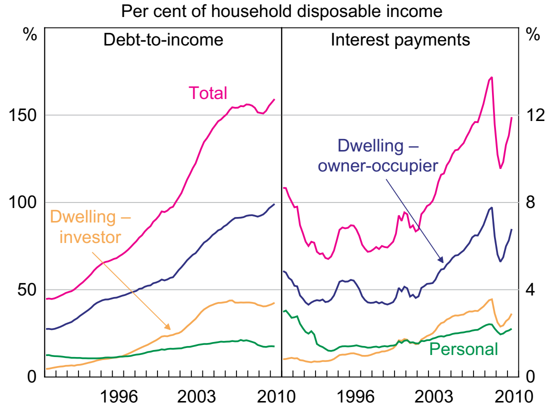
The cooler housing market in recent months has been associated with an easing in household borrowing. Among owner-occupiers, loan approvals for first-home buyers have slowed to levels similar to those prevailing for much of the past decade, as temporary additional government subsidies expired (Graph 63). Demand by other owner-occupiers has also slowed since the start of the year, in response to declining affordability stemming from increased dwelling prices and interest rates, while investor activity has been fairly steady. Overall, the annualised pace of housing debt growth was 7 per cent over the six months to July 2010, down from 9 per cent in the six months prior, and well below the average annual increase of 14 per cent in the ten years to July 2009.

Although the pace of debt accumulation has moderated over recent years, aggregate household indebtedness and gearing remain at historically high levels, and the household sector's interest servicing ratio is also returning to higher levels (Graph 64). Together, these developments mean that the household sector remains sensitive to possible future negative shocks to incomes, interest rates and housing prices. Dwelling price-to-income ratios rose significantly between the 1980s and the early 2000s, likely explained by the structural changes of disinflation and deregulation that occurred over that time. Since then, during a period of strong population growth in Australia, price rises nationally and in capital cities have on average been broadly in line with growth in incomes. Measures of rental yields have also been steady for much of the country over the past decade. Nonetheless, many markets have experienced very strong capital growth in recent years, particularly Melbourne, and the recent slowing in price appreciation is a welcome development for the resilience of household finances.

Despite being more indebted, households' debt-servicing ability is currently strong, supported by ongoing income growth. Data from the Household, Income and Labour Dynamics in Australia (HILDA) survey imply that almost two thirds of households with owner-occupier debt faced repayments smaller than 30 per cent of their disposable income in 2008 (when interest rates were higher than at present) (Graph 65). The proportion that had debt-servicing ratios greater than 30 per cent was higher than earlier in the decade, but this appears to mainly reflect increases in interest rates rather than increased indebtedness. HILDA survey data also suggest a well-established pattern of around half of all indebted owner-occupier households being ahead of their scheduled repayments, with most others tracking on schedule.

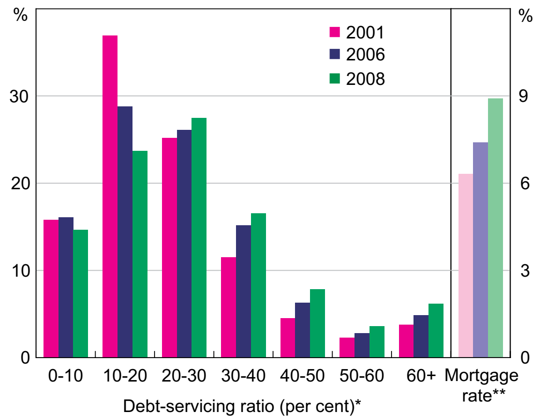
Contributing to the improved financial position of the household sector in recent years has been an apparently more cautious approach to finances, though some indicators suggest that more recently this conservatism has been waning. Survey data from the Melbourne Institute show an increase in the proportion of households that are saving, with 49 per cent of households reportedly saving 'a little' or 'a lot' in September 2010, up from 45 per cent in September 2008. Over 2009, households had been saving a greater proportion of their incomes than had been the case for much of the past decade, although the saving rate has fallen more recently as stimulus payments ended (Graph 66). Households' more conservative approach to allocating savings seen over the past couple of years remains evident:

Graph 64
Household Indebtedness and Interest Payments*



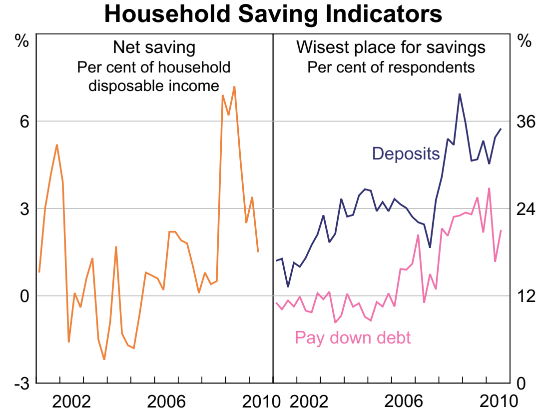
* Excludes unincorporated enterprises; income is after tax and before the deduction of interest payments
Sources: ABS; RBA

Graph 65
Owner-occupier Debt-servicing Ratios



* Principal and interest repayments on owner-occupier mortgage debt only; per cent of indebted owner-occupier households
** Average interest rate on variable housing loans; as at September
Sources: HILDA Release 8.0; RBA

Graph 66
Household Saving Indicators



Sources: ABS; Melbourne Institute and Westpac deposits remain a preferred place for savings (partly reflecting the attractive rates available at present), and paying down debt also remains more popular than usual.

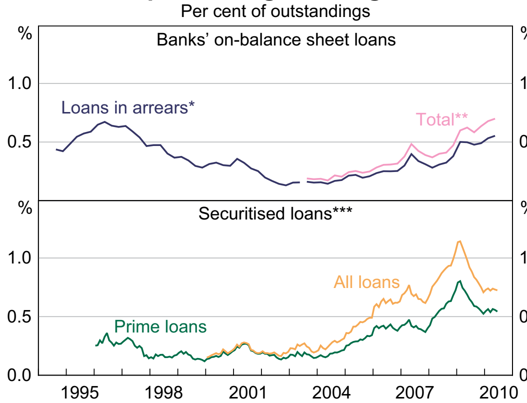
Signs of financial stress in the household sector remain fairly limited, with the improvement in the labour market further underpinning households' debt-servicing capacity despite higher interest rates. Loan arrears rates have drifted up since the end of 2009, but remain fairly low relative to a number of other countries. The rate of non-performing housing loans on banks' balance sheets was 0.7 per cent at the end of June, marginally higher than the start of the year; the bulk of these loans remain well secured (Graph 67). The arrears rate for securitised loans – which has been affected by reduced securitisation of new loans – is currently also around 0.7 per cent, little changed since the start of the year.

Whereas a few years ago the incidence of loan delinquency was highly concentrated in western Sydney, the limited available data suggest that a greater geographical dispersal of arrears has developed over the past 12 to 18 months, without any particular concentration of problem loans emerging. A small number of regions in western Sydney remain represented among the most affected areas, though at lower arrears rates than was previously the case, while other more affected regions include areas in coastal parts of New South Wales and Queensland, and south of Perth.

Other indicators of financial stress suggest that household financial circumstances are, in aggregate, relatively strong. The rate of non-performing credit card loans has been little changed in net terms for the past three years, at around 1.2 per cent, while the non-performance rate on other types of personal loans has declined by around 0.1 of a percentage point over the past year, and currently stands at around 1.6 per cent (Graph 68). The rate of bankruptcies and other personal administrations has declined a little over the first part of 2010, after peaking in late 2009. Across most states, the rates of mortgagees' applications for property possession remain well below those seen in recent years, although there has been some pick-up in recent monthly figures in a number of states (Graph 69).

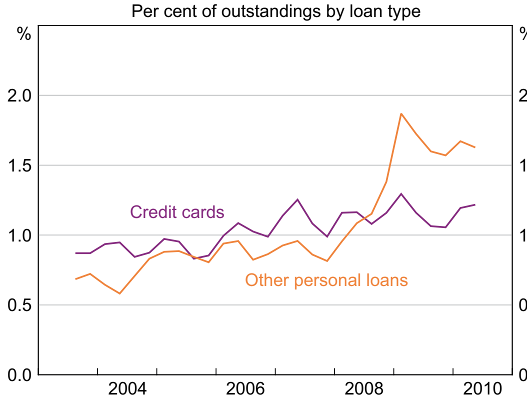
While the outlook for loan delinquencies is largely dependent on developments in the economic environment, the underlying risk profile of the household sector ought to have been helped by the tighter lending standards applied over the past few years. Across new loans approved by banks, the proportion of high loan-to-valuation ratio (LVR) mortgages continued to decline into the

Graph 67
Non-performing Housing Loans
Per cent of outstandings



* Loans that are 90+ days past-due but otherwise well secured by collateral
** Includes 'impaired' loans that are in arrears (or are otherwise doubtful) and not well secured by collateral
*** Loans securitised by all lenders, 90+ days past-due
Sources: APRA; Perpetual; RBA; Standard & Poor's

Graph 68
Banks' Non-performing Personal Loans*
Per cent of outstandings by loan type



* Includes 'impaired' loans and 90+ days past-due items that are well secured by collateral
Source: APRA

June quarter, and the proportion of interest-only loans remained fairly stable (Graph 70). The peak in approvals for high-LVR loans was associated with the surge of first-home buyers over the first part of 2009, at a time when housing loan interest rates were around historically low levels and government grants had been temporarily raised. The entry of such a large group of new borrowers with little housing equity was an unusual development, but although housing interest rates have increased by around 150 basis points over the past year, liaison and available data suggest little evidence to date of worse loan performance among this group than earlier cohorts of first-home buyers displayed.

The availability of mortgages underwritten to laxer lending standards – such as low-documentation and non-conforming loans – has fallen with reduced competition in the mortgage market and restricted funding for securitisations. The amount of outstanding low-documentation loans has been fairly constant over the past couple of years, and as a share of outstanding housing loans has declined from around 8 per cent in March 2008 to around 7 per cent in June 2010. Securitised non-conforming loans – the closest Australian equivalent to US sub-prime loans, and which were never offered by authorised deposit-taking institutions – have declined as a share of loans outstanding from around 0.8 per cent to around 0.3 per cent over the same period. If this improvement in the composition of the outstanding loan pool is sustained, on the back of higher-quality new lending, this should further boost the household sector's resilience in the face of future downturns. On the other hand, some lenders have begun to raise their maximum LVRs again, so any further improvement in the average quality of new loans could be fairly modest.

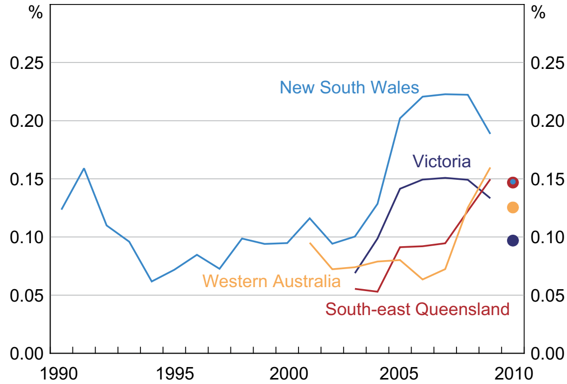
Business Sector

Aggregate earnings of the business sector have recovered strongly from the downturn seen in 2008 and 2009. National accounts measures of profits

Graph 69

Applications for Property Possession*

Per cent of dwelling stock



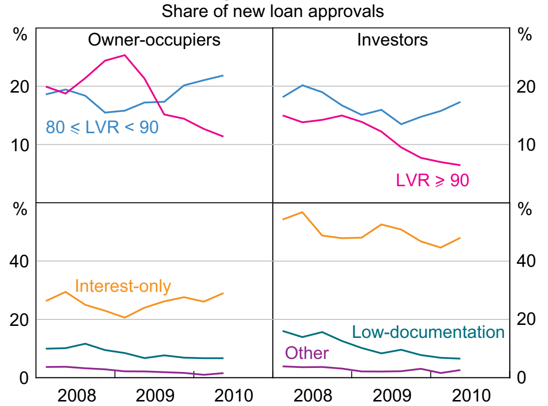
* Includes applications for possession of some commercial, as well as residential, properties; estimate for 2010 is annualised data up to August for VIC, July for NSW, June for WA, and May for south-east QLD

Sources: ABS; state Supreme Courts

Graph 70

Banks' Housing Loan Characteristics*

Share of new loan approvals



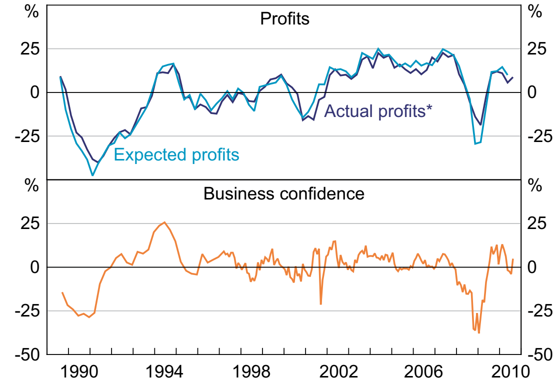
* LVR = loan-to-valuation ratio; 'Other' includes loans approved outside normal policies, and other non-standard loans; 'Interest-only' includes mortgages with 100 per cent offset accounts

Source: APRA

for the sector as a whole were 18 per cent higher in the June quarter 2010 than in the same period a year earlier. Survey measures of expected profits are generally at or above their long-run averages, even though overall business confidence has declined a little since the start of 2010 (Graph 71).

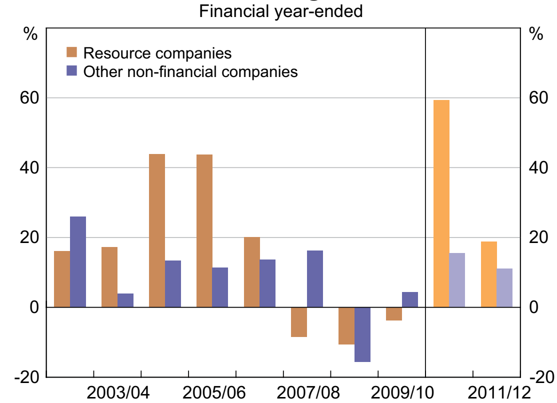
There continue to be substantial divergences in earnings across industries. The outlook for mining companies' profits is stronger, driven by higher commodity prices; share market analysts are

Graph 71
Business Conditions Surveys
Net balance, deviation from long-run average



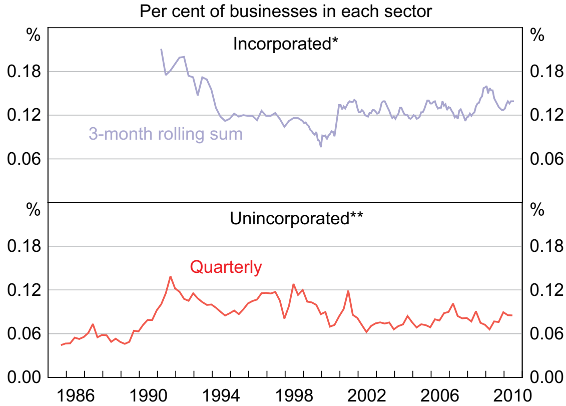
* Latest observation is for August 2010
Source: NAB

Graph 72
ASX 200 Earnings Growth*
Financial year-ended



* Growth in actual earnings until 2009/10; analysts' forecasts from 2010/11 onwards
Sources: RBA; Thomson Reuters

Graph 73
Business Failures
Per cent of businesses in each sector



* Corporate receiverships and liquidations; pre-1999 data are quarterly
** Business bankruptcies
Sources: ABS; ASIC; ITSA; RBA

therefore forecasting listed resource companies' earnings to increase by around 60 per cent over the 2010/11 financial year (Graph 72). Profit growth for firms in other non-financial sectors has been slower but steadier over recent years: after some weakness in late 2008 and early 2009, analysts' earnings growth expectations are around 15 per cent for the coming financial year for large ASX-listed companies in these sectors. Among unlisted firms, partial credit bureau data indicate that the deterioration in profit performance over 2008 and 2009 was particularly marked in some consumer-dependent industries such as retail trade and services, as well as the real estate sector.

Failure rates for both incorporated and unincorporated businesses have been fairly stable over 2010, and are a little higher than a year ago (Graph 73). Business failure rates remain around their long-term averages, and are still substantially below the levels seen in the early 1990s.

Strong profitability both prior to, and during, the downturn has been an important factor in the business sector's resilience. A steady source of internal funding has helped firms to operate in a more difficult environment for debt finance, with internal funds having averaged around 10 per cent of GDP for the past year or so (Graph 74). Earlier strong profits had, in aggregate, also limited the build-up of a reliance on external funding sources – particularly debt – which further mitigated the impact of reduced debt availability during the recent downturn.

The balance sheet adjustment necessitated by the crisis was assisted by large equity raisings, equivalent to around 6 per cent of GDP in the six months to December 2009. The availability of substantial amounts of equity capital during this period likely reflects a number of factors, including the relative strength of the Australian economy through the financial crisis, the large institutional presence in the local equity market, and the strong share market rally over much of 2009. More recently, net equity raisings have been more subdued, with raisings of only $12 billion since the start of 2010 compared with $55 billion over the same period in 2009 when many companies were actively deleveraging.

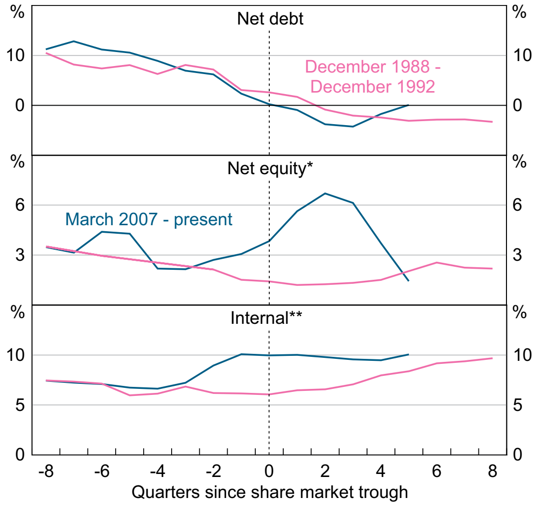
Debt funding remains subdued, with wholesale issuance still quite modest and business credit growth remaining weak. Non-financial companies have issued around $15 billion of corporate bonds since the start of 2010, compared with around $23 billion over the same period in 2009. Outstanding business credit has been fairly stable in net terms over recent months, compared with a contraction of around 5 per cent in the six months to December 2009. While weak demand for credit has partly explained this very low pace of growth in recent years, it also reflects tighter financing conditions as banks' risk appetites decreased. However, as discussed in 'The Australian Financial System' chapter, there are indications that credit availability is improving, and industry liaison suggests that competition among lenders for some market segments is beginning to pick up.

Looking forward, the funding position is likely to vary across industries. Resource companies look relatively better placed to source funds from outside the banking system: the strong profit outlook for this sector is likely to be supportive for potential equity raisings, as well as provide a steady stream of internally generated funds with which they can fund investment (Graph 75). This is further supported by the practice of firms in this sector of paying out a relatively small share of earnings as dividends – around 30 per cent over the past five years. In contrast, non-resource firms paid out an average of around 90 per cent of earnings as dividends over this period, and instead were relying more on external sources to fund balance sheet expansion.

Average interest rates paid on business loans have risen further over the course of 2010, and are now around their longer-run average levels: rates on large business loans are 160 basis points above the 2009 low, while rates on small business loans are 105 basis points higher. In aggregate, the business sector appears well placed to handle these increases, in part because of the deleveraging that has occurred since 2008. Based on the financial accounts of listed companies that have reported in recent months, the aggregate debt-to-equity ratio of these firms has continued to decline over

Graph 74
Business Funding

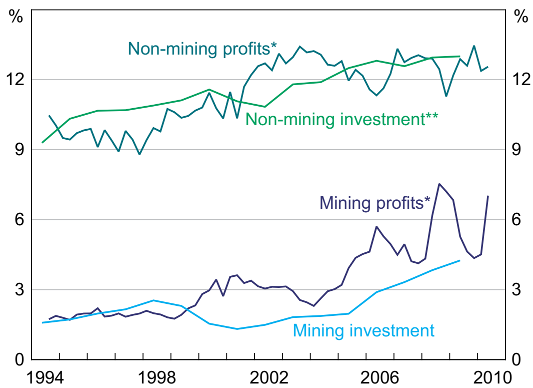
Net change as a share of GDP, two-quarter rolling average



* Annual average prior to June 1990
** Excludes unincorporated enterprises, includes public non-financial corporations
Sources: ABS; ASX; Austraclear; RBA

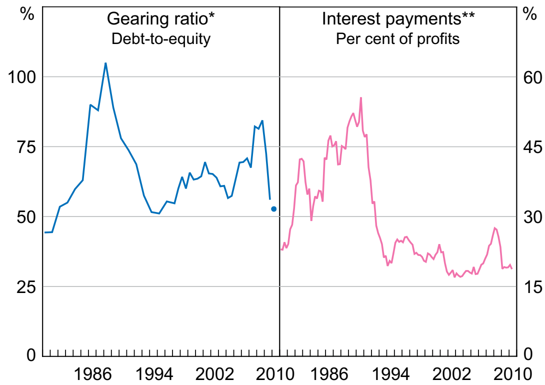
Graph 75
Business Profits and Investment

Per cent of GDP



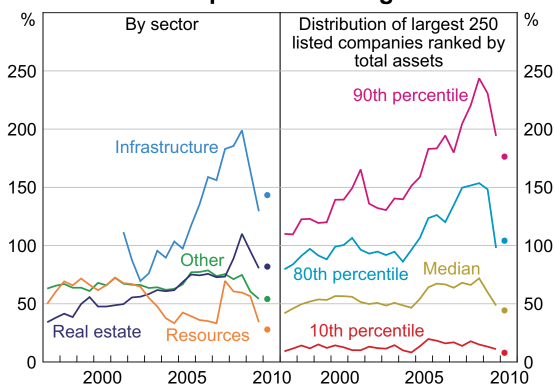
* Gross operating profits; inventory-valuation adjusted; excludes unincorporates
** Excluding livestock; adjusted for second-hand asset transfers between private and other sectors
Sources: ABS; RBA

Graph 76
Corporate Sector Finances



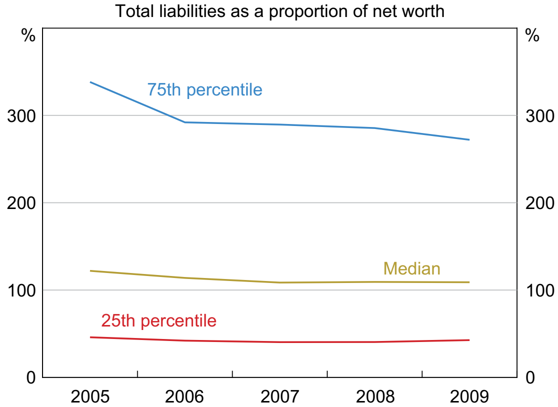
* Listed non-financial companies' gross debt/shareholders' equity at book value; excludes foreign companies, includes real estate companies; latest observation includes only companies that have reported to June 2010
** ABS data prior to 1994, RBA data thereafter; profits are measured as non-financial corporations' gross operating surplus
Sources: ABS; Morningstar; RBA; Statex

Graph 77
Listed Companies' Gearing Ratios*



* Listed non-financial companies' gross debt/shareholders' equity at book value; excludes foreign companies, includes real estate companies; latest observation includes only companies that have reported to June 2010
Sources: Morningstar; RBA

Graph 78
Distribution of Unlisted Company Gearing Ratios*
Total liabilities as a proportion of net worth



* Excludes firms with reported negative gearing ratios
Sources: Dun & Bradstreet (Australia); RBA

the past year, and is currently around 55 per cent compared with around 85 per cent in December 2008 (Graph 76).

Gearing ratios of highly leveraged companies continued to fall in the June half 2010 (Graph 77). Whereas the company at the 90th percentile of gearing had a debt-to-equity ratio close to 250 per cent as at December 2008, this had fallen by around 70 percentage points through to June 2010. Smaller declines were seen across more moderately geared companies, and the median gearing ratio is now around its lowest level for more than a decade. By industry, aggregate gearing remains highest among infrastructure firms; the first half of 2010 has seen a slight increase in gearing in this sector, reflecting continued write-downs by a small number of firms. For the bulk of the listed sector, though, aggregate gearing ratios have either stabilised or declined a little.

Partial credit bureau data for unlisted companies (covering around 5 000 firms, generally smaller than listed companies) indicate that deleveraging in this sector has been less extensive than for its listed counterpart. The median ratio of total liabilities (a broader measure than debt) to net worth has moved a little lower over the past five years, and was around 110 per cent in the 2009 financial year; again, deleveraging has been more marked among highly geared firms (Graph 78). The share of unlisted firms reducing their gearing ratio has been consistently around 55 per cent over this time (Graph 79). Although more of these deleveraging firms were simultaneously contracting their balance sheets in 2009 than 2008, the general pattern has been that most unlisted firms were still expanding their balance sheets over this period.

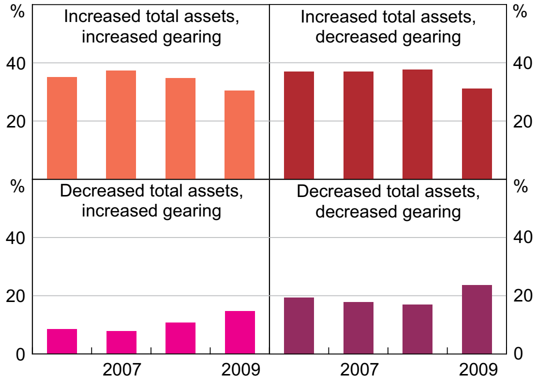
The non-performing domestic business loan ratio has continued to increase over the year to June. Across all types of non-financial businesses, this rose to 4.4 per cent in June, though the pace of increase appears to have slowed. The upward trend has been mostly driven by loans to the incorporated sector, where the rate of non-performance was 4.7 per cent, up from 3.8 per cent a year earlier (Graph 80). Within this, around half of the increase in problem loans appears to be due to banks' exposure to commercial property. The rate of non-performing loans to smaller unincorporated businesses has improved over the past year to be 2.6 per cent in the June quarter.

Commercial Property

Conditions in the commercial property sector have broadly stabilised over 2010, with the declines in prices and rents seen in most sectors since 2008 appearing to have run their course (Graph 81). The office sector had been particularly affected during the downturn, with both prices and rents falling around 25 per cent (in nominal terms) from their peaks, but these have been steadying over recent quarters as the economy has strengthened. The improving economic outlook has also been associated with a steadying in approvals for commercial property developments, after these fell by around 40 per cent from their 2008 high (Graph 82). Actual work done on commercial property development is still weak, however, partly because financing conditions remain difficult.

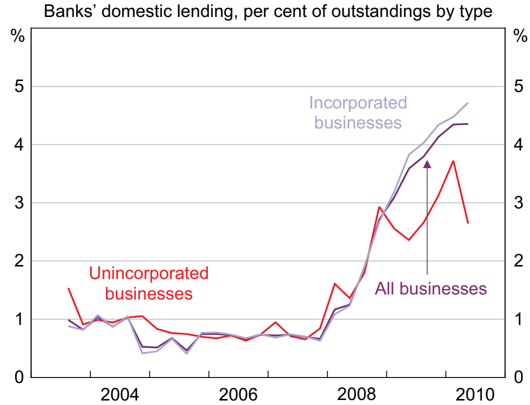
Banks' Australian commercial property exposures declined further over the first half of 2010, to be 11 per cent lower than the March 2009 peak. Over half of this fall was attributable to declines in lending by the major banks and another third was due to the foreign banks; though relative to the size of their portfolios, the reduction in lending was larger for foreign banks. This mainly reflected the conscious efforts of a number of US and European institutions to wind down their Australian exposures, given challenges in their home markets and elevated impairments on their commercial property exposures. More recently, though, some foreign banks appear to be recovering their appetite for the commercial property sector, with a significant

Graph 79
Unlisted Companies' Balance Sheets
Share of reporting companies*



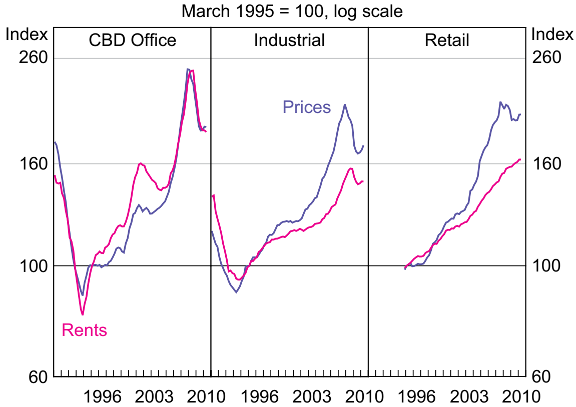
* Matched sample of companies reporting over previous year; excludes firms with reported negative gearing ratios
Sources: Dun & Bradstreet (Australia); RBA

Graph 80
Non-performing Business Assets*
Banks' domestic lending, per cent of outstandings by type



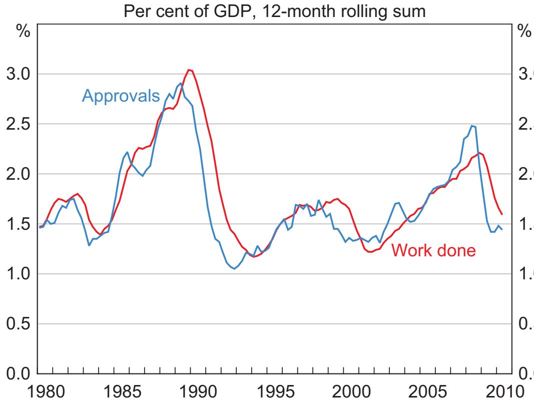
* Includes 'impaired' loans and 90+ days past-due items that are well secured by collateral; includes bill acceptances and debt securities
Sources: APRA; RBA

Graph 81
Commercial Property
March 1995 = 100, log scale



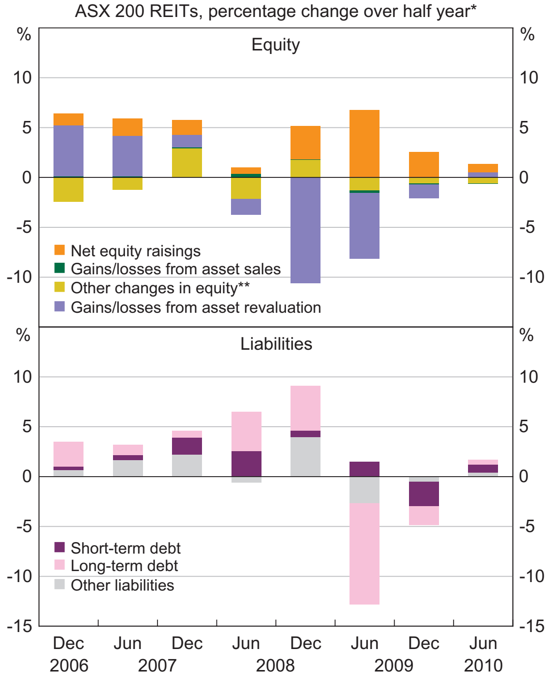
Sources: Jones Lang LaSalle; RBA

Graph 82
Commercial Property Construction
Per cent of GDP, 12-month rolling sum



Sources: ABS; RBA

Graph 83
REIT Balance Sheet Adjustments
ASX 200 REITs, percentage change over half year*



* Constituents as at half year end; change relative to total assets at start of each period

** Includes retained earnings

Sources: ASX; Morningstar; RBA; company reports

number increasing exposure limits (though not yet actual exposures) over the June quarter, in contrast to the broad-based reductions seen in the previous four quarters.

Recent developments in the balance sheets of listed real estate investment trusts (REITs) have reflected the stabilisation in debt funding availability and property prices. In the most recent half year, listed REITs, in aggregate, have reported a slight upward revaluation in assets, in contrast to the previous four half years of (at times substantial) downward asset revaluations (Graph 83). These declines, combined with an inability to refinance maturing debt, had prompted substantial equity raisings by REITs over late 2008 and 2009, of around $18 billion. Equity raisings have slowed in more recent periods, associated with a slowing in net repayments of debt, and the June half saw the first increase in net borrowings since December 2008. ✠

Developments in the Financial System Architecture

International regulatory efforts over the recent period have focused on finalising the reforms to the key capital and liquidity standards for banks and other deposit-taking institutions. The reforms aim to increase the resilience of the global banking system and ensure greater financial stability, by requiring banks to have more, and better-quality, capital and hold larger amounts of liquid assets than prior to the crisis. The changes represent a major overhaul of the standards under which banks will operate. The reform efforts have been led by the Basel Committee on Banking Supervision (BCBS) and its oversight body, the Group of Governors and Heads of Supervision (GHOS). The Reserve Bank and APRA are members of both groups. Key details of the reforms were announced by GHOS following its meetings in July and September 2010. The final package of reforms is scheduled to be presented to the November 2010 G-20 Leaders' Summit in Seoul before being published by the BCBS in December 2010.

As discussed in the March 2010 *Review*, the reforms will, over time, have the effect of tightening global financial conditions by reducing bank leverage and maturity transformation. The challenge has been to get the right balance between the benefits of increased global financial stability (in particular, the reduction in the probability of financial crises in the future and the reduced output losses associated with such crises), and the perceived costs for the wider economy of tighter conditions. This is especially relevant at a time when economic growth in some economies has been lacklustre. With this in mind, the BCBS, in co-operation with other bodies such as the Financial Stability Board (FSB) as well as national authorities, has undertaken a series of studies to estimate the likely impact of the changes on banks and the wider economy, including a quantitative impact study (QIS). That work suggests that the transitional effect of this tightening in conditions on economic growth is likely to be modest.[7] It also found that the long-run benefits substantially exceed the potential output costs for a range of higher capital and liquidity requirements.[8]

These studies, as well as the feedback on the BCBS' December 2009 reform proposals, especially from national regulators and the banking industry, were important inputs into the modified package of capital and liquidity reforms that was recently released. A key difference from the December 2009 package is that the reforms will be phased in over a substantially longer period than the original implementation date of end 2012. The studies have also been crucial in assisting the calibration of key standards. For example, the new minimum capital ratios will for the first time include an explicit minimum ratio for common equity to risk-weighted assets, of 4.5 per cent. In addition, banks will have to hold a 'capital conservation' buffer of 2.5 per cent to withstand future periods of stress, bringing the total effective requirement for common equity – the highest form of loss-absorbing capital – to 7 per cent.

There have also been developments in other regulatory areas, largely under the auspices of the

7 FSB/BCBS Macroeconomic Assessment Group (2010), *Assessing the Macroeconomic Impact of the Transition to Stronger Capital and Liquidity Requirements*, Interim Report, August.

8 BCBS (2010), *An Assessment of the Long-term Economic Impact of Stronger Capital and Liquidity Requirements*, August.

FSB, and other Bank for International Settlements-hosted committees, with the G-20 providing overall impetus. A common theme in much of this work is to ensure that all systemically important institutions, instruments and markets are subject to appropriate oversight. Regulators are continuing their efforts to enhance the oversight and regulation of non-bank financial institutions, such as insurers and non-regulated entities, and to strengthen the core infrastructure, such as payment and settlement systems. The key items on the international financial regulatory agenda and some implications for the financial regulatory framework and developments in Australia are outlined below.

The International Regulatory Agenda and Australia

Strengthening the capital framework for ADIs

Since the previous *Review,* significant progress has been made in finalising global reforms to strengthen the resilience of banks. The capital proposals, known as 'Basel III', seek to increase the quality, quantity and international consistency of capital (especially Tier 1 capital) and to discourage excessive leverage and risk-taking. The reforms represent a major enhancement of the capital framework for banks, though this on its own should not be seen as a substitute for other improvements, such as, to banks' own risk-management practices.

An important issue that has only recently been agreed relates to the 'calibration' or setting of the **new minimum regulatory capital requirements**. Currently, the Basel Accord capital requirements for banks are a Tier 1 capital ratio of 4 per cent of risk-weighted assets and an overall capital ratio of 8 per cent. The key components of these minima have been increased, as the recent crisis showed that many banks had insufficient capital (Table 7). Further, in order to improve the quality of banks' core capital, a new explicit minimum requirement has been established for the common equity component of Tier 1 capital (also known as core Tier 1 capital); that is, the component that is truly loss-absorbing.

As foreshadowed in the March 2010 *Review*, the **definition of capital** will be changed to ensure that common equity – that is, common shares and retained earnings – will be the predominant form (75 per cent) of Tier 1 capital. Hybrid capital instruments with an incentive for the issuer to redeem will be phased out and certain lower-quality items that currently qualify as Tier 1 capital (such as deferred tax assets that arise from timing differences, mortgage servicing rights and investments in minority interests) will be partly excluded from the common equity component of Tier 1 capital. These changes essentially mirror the BCBS' reform proposals that were announced in December 2009, but have been revised to allow a limited amount of these lower-quality items to be included in Tier 1 capital. In making this allowance, the BCBS was

Table 7: New Capital Requirements
Per cent

	Common equity	Tier 1 capital	Total capital
Minimum	4.5	6.0	8.0
Conservation buffer	2.5		
Minimum plus conservation buffer	7.0	8.5	10.5
Counter-cyclical buffer range[(a)]	0 to 2.5		
Leverage ratio		3.0[(b)]	

(a) Common equity or other fully loss-absorbing capital
(b) The proposed leverage ratio will be tested using Tier 1, but the impact of using common equity and total capital will also be tracked
Source: GHOS

persuaded that fully deducting these items could have potentially adverse consequences for particular business models and provisioning practices, and may not appropriately take into account evidence of realisable valuations during periods of extreme stress.

The changes to the definition of capital will affect banks' capital ratios, with the preliminary QIS results showing that large banks in certain countries will need, in aggregate, a significant amount of additional capital to meet the new requirement. Given this situation, generous transition periods have been provided for the implementation of the changes to allow banks to meet the higher capital standards through reasonable earnings retention and capital raisings, while still supporting lending to the economy. From 2013, banks will be required to meet new minimum capital requirements for common equity and Tier 1 capital of 3.5 per cent and 4.5 per cent of risk-weighted assets, respectively. These minimum requirements increase in steps over two years, reaching the agreed new calibrations from 2015.

Data provided by Australian banks for the QIS suggest that they are well placed to meet the new capital requirements. This reflects the fact that APRA never ascribed any value to the lower-quality items (such as deferred tax assets) that will no longer fully qualify for Tier 1 capital. Also, APRA has always taken a more conservative approach than in some other countries to the proportion of regulatory Tier 1 capital that should be common equity. Further, Australian banks raised considerable common equity from late 2008 to the middle of 2009. Now that most of the capital reform details and phase-in arrangements have been released, in the period ahead APRA will provide ADIs in Australia with guidance and a timetable for implementation through its usual standard-setting consultation processes. APRA anticipates that it will begin consultation on the reforms in 2011 and that this will continue into 2012.

The reform package also includes the introduction of a **leverage ratio**, to be set at 3 per cent of assets (including off-balance sheet exposures), which will be tested during a 'parallel run' with the existing risk-based measures. The leverage ratio aims to constrain the build-up of leverage in the banking sector and reinforce the risk-based requirement with a simple, transparent, non-risk-based 'backstop' measure. The measure will be based on the proposed new definition of Tier 1, but during the parallel run the BCBS will also track the impact of using common equity Tier 1 capital and total capital. The four-year parallel run period will start on 1 January 2013. Based on the results of the parallel run period, any final adjustments to the ratio would be made in the first half of 2017 before the ratio becomes a minimum capital requirement from 2018.

The Reserve Bank and APRA have previously expressed some concerns that a simple leverage ratio requirement, if binding, could weaken the principle that capital should be allocated against economic risk, and may therefore lead to unintended consequences such as encouraging banks to increase the share of high-risk assets on their balance sheet. Modifications to the proposal have lessened these concerns to an extent. The level of the ratio proposed is such that it would already be met by the large Australian banks, so risk-based capital requirements would remain the binding constraint. The proposal also now involves a lengthy period over which the performance of a leverage ratio will be assessed, giving the BCBS the opportunity to refine it further should that be necessary.

Agreement has also been reached on the proposals to require banks to have **capital buffers** in place – a capital conservation buffer and a counter-cyclical capital buffer, both of which are to apply in addition to the re-calibrated minimum capital requirements.

- The capital conservation buffer would be maintained in normal times, but available to be run down during more stressed periods. It is intended to induce banks to maintain enough capital to absorb the magnitude of losses that a financial crisis might cause and still remain above the minimum requirement. If a bank does run down its buffer, it would have restrictions placed on its earnings distributions, and the closer the bank's capital ratio approaches the minimum requirement, the greater this restriction will be. This buffer will be phased in from 2016 and reach 2.5 per cent of risk-weighted assets in 2019.

- The counter-cyclical buffer is additional to the conservation buffer. It is expected to be set at zero for most of the time, while it would extend the capital conservation buffer by up to 2.5 per cent during periods of excess credit growth, or other indicators deemed appropriate by supervisors for their national contexts. This buffer aims to achieve the broader macroprudential goal of protecting the banking sector from periods of excess aggregate credit growth.

The two buffers are aimed at enhancing the loss-absorbing capacity of a bank's capital, which is underpinned by the requirement that they be comprised of common equity (or other fully loss-absorbing capital in the case of the counter-cyclical buffer). Care will be needed to ensure that the conservation buffer can actually be drawn down in times of stress, without that act being perceived as a sign of instability for the bank. The BCBS is to consider further the operational details for the counter-cyclical buffer in coming months, including feedback on the consultation paper that it released in July 2010.

Capital charges for **counterparty credit risk**, aimed at strengthening the risk coverage of the capital framework, are also to be increased. One aspect of this relates to exposures between financial institutions. Work by the BCBS showed that such exposures were more correlated than exposures to non-financial institutions. As a result, the capital requirement for counterparty exposures to large (assets of at least US$100 billion) or unregulated financial institutions is to be increased by 25 per cent. The increase reflects the inherent higher risk of exposures to other financial entities and helps address the interconnectedness issue between financial institutions. This is one of several measures which act to address the 'too big to fail' problem, especially arising from the often extensive linkages between large complex financial institutions.

The BCBS is continuing work on the design and features of certain **contingent capital** instruments to enhance their loss-absorption. Contingent capital instruments are securities that convert to a pre-specified form and amount of new or higher-quality regulatory capital, typically common equity, if a pre-set 'trigger' event is breached. By providing additional capital to banks in periods of stress, they potentially reduce the probability of bank failure. They could also have a role in meeting a portion of any future capital surcharge requirements on systemic banks. The BCBS is considering the possible role of these instruments in two circumstances, either on a 'gone concern' or a 'going concern' basis, with the difference largely reflecting the trigger mechanism.

- The 'gone concern' proposal involves capital instruments, such as preference shares or subordinated debt instruments, that have contractual terms allowing the instruments to convert to common equity or be written down when an institution becomes 'non-viable'; that is, it is unable to support itself in the private market. The conversion would trigger at the option of the regulatory authority. The BCBS issued a consultation paper on 'gone concern' contingent capital instruments in August 2010 and, following feedback, will review a detailed proposal later this year.
- The 'going concern' proposal is similar, apart from the trigger mechanism. In these cases the trigger would not be at the option of the regulatory authority, rather the conversion would occur when equity falls below some pre-specified level, but well before the bank becomes unviable. Such instruments are already in limited use. For example, in late 2009, Lloyds issued (through an exchange offer) bonds which would convert to ordinary shares if its published core Tier 1 capital ratio fell below 5 per cent. The BCBS will also consider the issue of 'going concern' contingent capital later this year.

Strengthening liquidity risk management by ADIs

The second key aspect of the reform proposals is a range of stricter global liquidity requirements to ensure that bank assets remain prudently liquid in periods of stress, and that banks' funding is on a more sustainable, longer-term basis. The liquidity proposals include requirements based on two new ratios, both of which may reduce the traditional maturity transformation role of banks.

- The liquidity coverage ratio (LCR) requires banks to have sufficient high-quality liquid assets to fund projected cash outflows in a hypothetical 30-day crisis situation.
- The net stable funding ratio (NSFR) requirement aims to match the duration of banks' liabilities and assets more closely by comparing liabilities considered stable (such as deposits and long-term debt) with longer-term assets (such as loans).

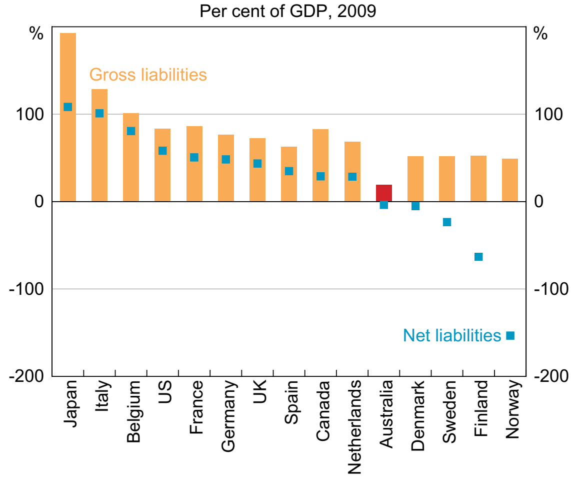
The liquidity proposals have been amended in several areas compared with those released in December 2009, which have the cumulative effect of making them somewhat less onerous. For example, for the LCR, assumed rates of certain deposit outflows (or 'run-off' rates) for retail and small business deposits held with banks were lowered, resulting in more funds assumed to remain with the bank during a stressed scenario. Also, outflows of funding by governments and central banks are assumed to be lower than previously proposed, in recognition that, with secured funding in particular, the authorities are likely to continue to roll-over their funding during a time of stress. After an observation period starting in 2011, the LCR will be introduced from 2015.

The definition of liquid assets has also been broadened, thereby allowing banks to use more instruments to meet the criteria. In particular, a 'Level 2' category of liquid assets has been introduced, covering certain government and public sector enterprise assets, high-quality non-financial corporate bonds and covered bonds not issued by the bank itself, with the sum of these assets capped at 40 per cent of the total pool of liquid assets. This would be a complement to the Level 1 liquid assets (cash, central bank reserves and high-quality sovereign paper), which make up the remaining 60 per cent. Even so, for Australia and other countries with very low levels of government debt, the definition of Level 1 liquid assets under the LCR is one that is still unworkable, given the low level of public sector securities and other eligible non-bank securities on issue in such countries (Graph 84). In recognition of this, the revised proposal involves the BCBS developing a standard for jurisdictions which do not have sufficient high-quality (Level 1) liquid assets to meet the 60 per cent minimum share requirement.

The NSFR has been modified and its introduction delayed. The revisions largely reflect feedback that the initial calibration was too severe, as well as concerns regarding the perverse incentives it created, in particular that it would favour investment banking over retail banking. There will also be an 'observation phase' before implementation, to address any unintended consequences across business models or funding structures before the revised NSFR is finalised and introduced from the start of 2018.

Graph 84

General Government Financial Liabilities*



* Projected
Source: OECD

Systemically important financial institutions and supervisory oversight

A further issue under consideration by the FSB is the development of a policy framework for reducing the moral hazard risks associated with systemically important financial institutions (SIFIs). The FSB has been working on policies to manage the risks posed by SIFIs in three ways: (i) improving the capacity to resolve SIFIs without taxpayers bearing the costs; (ii) reducing the probability and impact of a SIFI failure; and (iii) strengthening the core financial market infrastructure to reduce contagion risks if failure occurs. Having released an interim report on SIFIs in June, the FSB will present its final report to the G-20 Leaders' Summit in November.

A key aspect of the FSB's SIFI policy relates to ensuring effective supervisory oversight. This would involve a strengthening of the mandate, powers and resources of supervisory authorities, and more effective supervisory tools and practices. Examples of the latter include the early identification of risks through better data collection, processing and monitoring, leading to stronger on-site and off-site review work, enhanced consolidated supervision, and better co-ordination among home and host supervisors, including through supervisory colleges. Other bodies are also emphasising the importance of supervision. For example, the IMF recently emphasised the importance of an active and hands-on approach to prudential supervision and discussed the key elements of good supervision.[9]

Changed regulatory structures and mandates

The focus on better regulation of institutions and markets has been the impetus for several countries recently changing their regulatory and supervisory structures. An example is the announcement by the UK Government in July 2010 of fundamental changes to the structure of financial regulation there. The Financial Services Authority will cease to exist in its current form. A Prudential Regulation Authority will be created as a subsidiary of the Bank of England to conduct (micro) prudential regulation of sectors such as deposit-takers, insurers and investment banks. The Bank of England will be in charge of broader macroprudential regulation – encompassing financial stability considerations – by establishing a Financial Policy Committee within the Bank. Legislation in the United States allows for the establishment of a Financial Stability Oversight Council, comprising the heads of key regulatory agencies and the US Treasury Secretary, which will identify and respond to threats posed to financial stability from within and outside the financial system. In the European Union, agreement was recently reached on a new European Systemic Risk Board (located in, and supported by, the ECB) which would engage in macroprudential oversight of member countries' financial systems.

The IMF has also recently examined lessons for central banks from the crisis.[10] One such lesson is that financial stability should be primarily addressed using a macroprudential framework that integrates macroeconomic and systemic financial considerations and builds on microprudential supervision. However, in operationalising such a framework, a case can be made that certain 'macroprudential' supervisory tools (such as capital requirements and buffers, liquidity ratios, provisioning and collateral valuation) are, in fact, the usual microprudential tools long used by supervisors. Further, since not all prudential supervisors are entirely and narrowly microprudential in their orientation, responsibility for macroprudential concerns may well best be shared in some jurisdictions.

Bank levies

One of the themes of G-20 discussions has been that the financial sector should make a 'fair and substantial contribution' towards paying for any burdens associated with government interventions, where

9 IMF (2010), *The Making of Good Supervision: Learning to Say 'No'*, IMF Staff Position Note SPN/10/08, May.

10 IMF (2010), *Central Banking Lessons from the Crisis,* Policy Paper, May.

they occur, to repair the financial system and reduce risks. G-20 Leaders recognised that there is a range of policy approaches to this end, with some countries pursuing financial levies and others pursuing different options. To date, only a small number of countries have implemented, or plan to implement, a bank levy. In 2009, the Swedish Government implemented a financial stability fund, funded by an *ex ante* levy, which will be built up and used in times of financial crises for, *inter alia*, liquidity support, guarantees and capital injections. German authorities recently released draft legislation to introduce a levy on banks from 2011, which will be used to finance future bank bail-outs and restructurings that may arise. The UK Government has announced plans for a levy from 2011 on domestically located banks and building societies with aggregate liabilities of £20 billion or more. Money raised is to become part of the general tax stream and is not intended to fund future government intervention. Rather, the levy aims to ensure that the UK banking sector makes a fair contribution that reflects the risks it poses to the financial system and the wider economy, and to encourage banks to move away from riskier funding. The European Commission has proposed that bank resolution funds be established, funded by an *ex ante* levy on banks, to facilitate the resolution of a failing bank in a way that avoids contagion, allows the bank to be wound down in an orderly manner and in a timeframe which avoids the 'fire sale' of assets.

FSB peer review process

As part of its ongoing work for strengthening adherence to international standards, in recent months the FSB has launched two thematic peer reviews. One is reviewing the risk disclosure practices of banks and other financial institutions. It focuses in particular on the implementation of the recommendations concerning risk disclosures by market participants that were made in an April 2008 report by the Financial Stability Forum (the predecessor to the FSB) on *Enhancing Market and Institutional Resilience*. The other review is on residential mortgage underwriting practices; an area of focus given that poor underwriting practices made a significant contribution to the financial crisis in certain countries. The review is surveying existing practices across the FSB membership, including recent actions taken by national authorities to promote sound practices, and will draw internationally applicable lessons. The Reserve Bank is represented on the expert team reviewing underwriting practices.

The FSB has also begun a process of country peer reviews. These focus on the implementation and effectiveness of financial sector standards and policies agreed within the FSB, notably through systematic and timely follow-up to relevant recommendations arising from a recent IMF-World Bank Financial Sector Assessment Program (FSAP). The first country review, on Mexico, was released recently, with Italy and Spain currently undergoing country peer reviews. Australia has volunteered to undergo a country peer review in 2011.

Regulatory framework for the insurance sector

The regulatory framework for the insurance sector is also under review – in particular, the insurance core principles (ICPs) – by the International Association of Insurance Supervisors (IAIS). The principles, and corresponding standards and guidance material, detail various aspects of best-practice insurance regulation, such as licensing, corporate governance and group-wide supervision. They also provide the basis for evaluating insurance legislation, and supervisory systems and procedures. In July 2010, the IAIS issued a consultation paper on the revision of the ICPs. The goal is to have a complete set of revised and restructured ICPs ready for adoption by October 2011. APRA, an IAIS member, is participating in this review.

Also in July, the IAIS began developing its Common Framework for the Supervision of Internationally Active Insurance Groups. This framework aims to:

make group-wide supervision of globally active insurers more effective and reflective of actual business practices; establish a comprehensive framework for supervisors to address group-wide activities and risks; set grounds for better supervisory co-operation to allow for a more integrated and international approach; and foster global convergence of regulatory and supervisory measures and approaches. Consultation on these issues is expected to commence in the first half of 2011.

In June 2010, the IAIS released a statement on key financial stability issues, which recognised that the insurance sector is susceptible to systemic risks generated in other parts of the financial sector. While for most classes of insurance, there is little evidence of insurance either generating or amplifying systemic risk within the financial system itself or in the real economy, the IAIS noted that there are circumstances where insurers may amplify risk. Examples include life insurers aggravating equity market downturns with further stock sales, or where an unexpected withdrawal of capacity may disrupt a sector of the real economy. The IAIS is promoting improvements to supervision, combined with stronger risk management and enhanced approaches to resolvability, in recognition that non-regulated entities within financial conglomerates can generate systemic risk and create contagion within conglomerates or between sectors. As part of this effort, in April 2010, the IAIS published a guidance paper on enhanced treatment of non-regulated entities in group-wide supervision, to support insurance supervisors in addressing some of the key regulatory gaps observed in the financial crisis, and in minimising regulatory arbitrage opportunities.

Separately, in Australia, APRA released a discussion paper in May 2010 outlining its proposals to review and update the **capital standards for general insurers and life insurers**. APRA's intention is to make its capital requirements more risk-sensitive and to improve the alignment of its capital standards across regulated industries, where appropriate.

- For general insurance, APRA is completing the refinements which commenced in 2008. The proposed changes are relatively modest and ensure that all material types of risks, including asset/liability mismatch, asset concentration and operational risks, are adequately addressed within the capital standards.
- For life insurance, APRA is reassessing the capital standards in light of industry changes over the past 15 years and proposing more fundamental changes. The current dual reporting requirements for solvency and capital adequacy will be simplified. The capital structure for life insurers will be aligned more closely with the capital structure for ADIs and general insurers, which should facilitate adoption of APRA's proposed supervisory framework for conglomerate groups that was announced earlier in the year.

In commencing this review, APRA's position was not that current capital requirements for the general and life insurance industries were, overall, either too low or too high. APRA has not set out to achieve any material change in overall industry capital levels and proposals will not be finalised without assessing carefully their likely effect on capital at an individual insurer level and across the two industries. In connection with this, APRA commenced a quantitative impact study to evaluate the impact of the proposed changes on the general and life insurance industries. APRA expects to release draft capital standards by end 2010 or early 2011 and final capital standards later in 2011, to take effect in 2012.

Financial market infrastructure

As reported in previous *Reviews*, policymakers and regulators have been working towards strengthening core financial market infrastructures. One area of focus in this regard has been over-the-counter (OTC) derivatives markets. The FSB and the G-20 have encouraged a co-ordinated international approach to enhance the financial infrastructure in these markets, and improve risk management and transparency. In May 2010, the Committee on Payment and Settlement Systems (CPSS) and the International Organization of Securities Commissions (IOSCO) issued consultative reports regarding proposed policy guidance aimed at strengthening OTC derivatives markets. The first relates to the CPSS-IOSCO Recommendations for Central Counterparties and its application to central counterparties (CCPs) clearing OTC derivatives. The second relates to trade repositories for OTC derivatives and their overseers. It is intended that the results of these consultations will be incorporated in the general review of the CPSS-IOSCO standards for financial market infrastructures – namely the Core Principles for Systemically Important Payment Systems, the Recommendations for Securities Settlement Systems and the Recommendations for Central Counterparties – announced in February 2010. A public consultation regarding the results of this comprehensive review of the standards is scheduled for early 2011.

Some national authorities have already made changes in this area. Legislation was passed in the United States requiring greater use of CCPs for OTC derivatives where available, as well as widespread use of trade repositories. The European Commission has released draft legislation concerning similar requirements. In Australia, the agencies represented on the Council of Financial Regulators have been working with industry to encourage greater use of CCPs and other improvements to risk management and transparency in OTC derivatives markets. With the prospect of more CCPs looking to operate in Australia to service the OTC market, in April 2010 ASIC released guidance on the regulation of clearing and settlement (CS) facilities. This addresses, among other things, when an Australian CS facility licence would be required and when an overseas, rather than domestic, licence would be appropriate. The Reserve Bank's approach to assessing the appropriateness of an overseas, rather than domestic, CS facility licence was published in 2009.

Other Domestic Developments

The **Council of Financial Regulators** (the Council) is a forum for discussing important policy development work. At its meeting in September 2010, the Council discussed APRA's liquidity standards and possible ways to operationalise the BCBS' standards for jurisdictions that do not have sufficient Level 1 assets to meet the liquidity standard using these assets alone, or even together with Level 2 assets. The Council also considered reports from a number of its working groups, including those looking at Australia's crisis management arrangements, OTC derivatives and the parameters of the Financial Claims Scheme, which are to be reviewed by the Government ahead of October 2011.

As foreshadowed in previous *Reviews*, on 1 August 2010, ASIC took over responsibility for **supervising real-time trading on Australia's domestic licensed markets**. Previously, this function was performed by the Australian Securities Exchange (ASX). With ASIC as the whole-of-market supervisor, complete supervision of trading on the market is ensured should new trading platforms enter the Australian market. In March 2010, the Government gave in-principle approval for a market licence application by Chi-X, which plans to offer a platform to conduct secondary trading in ASX-listed shares. Final approval of Chi-X's licence is dependent on Chi-X meeting all of the necessary legislative requirements and the finalisation of the regulatory framework for competition between markets for trading equities. ASIC is still in the process of developing new market integrity rules that would apply in a competitive market environment.