FINANCIAL STABILITY REVIEW

September 2006

CONTENTS

1 Overview

3 The Macroeconomic and Financial Environment

21 Financial Intermediaries

39 Box A: International Financial Reporting Standards

42 Box B: Interest-only Housing Loans

44 Developments in the Financial System Infrastructure

The material in this *Financial Stability Review* was finalised on 25 September 2006.

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

For copyright and disclaimer notices relating to data in the Review see the Bank's website.

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

Overview

From a financial stability perspective, the past six months have been broadly reassuring. A year or so ago, there was anxiety in some quarters that the shift to less accommodating monetary policies in major financial centres – and, by extension, the withdrawal of cheap funding from investors – might be the trigger for abrupt and disorderly price adjustments in global financial markets. This has not occurred. Monetary policy has been tightened in the major economies and, while there has been an increase in volatility in a range of financial prices, financial markets have continued to function in an orderly manner. There have also been modest declines over the past couple of months in the prices of some relatively high-risk assets, including emerging market equities and sub-investment grade debt, as investors have shown a greater tendency to discriminate between assets than they had over recent years. These are favourable developments.

Notwithstanding the recent movements, valuations in many markets continue to be based on expectations of ongoing favourable economic outcomes, both in terms of growth and inflation. While it is entirely possible that these views will prove to be well founded, valuations remain susceptible to disappointing news. Earlier in the year, for example, concerns about nascent inflationary pressures – and hence, greater uncertainty about the extent and duration of the monetary policy tightening in the major financial centres – contributed to the sell-off in some financial markets. Further disappointing news on inflation or economic growth would be expected to have a similar effect.

One notable development over the recent past has been a strong pick-up in business credit growth in a number of countries. This pick-up has been underpinned by above-average growth in the world economy and still below-average interest rates. More generally, the appetite for leverage and historically relatively risky assets remains strong. There have been large inflows into both hedge funds and private equity funds and there is ongoing strength in demand for structured finance products. While these developments can be seen in a generally favourable light, the increased leverage embedded in many of these investments could pose significant challenges in less favourable economic conditions.

Domestically, the household sector continues to take a more cautious approach to its finances than was the case a few years ago, although household credit growth remains strong. Over the past two years, consumption has increased broadly in line with household income, after having grown more quickly than income over the past decade. Recently, there has been a modest increase in mortgage arrears, largely reflecting the general lowering of credit standards that has occurred over the past decade. Notwithstanding this increase, the aggregate arrears rate remains low by both historical and international standards. Overall, household balance sheets appear to be in reasonable shape and have benefited from historically low levels of unemployment and significant gains in the value of financial assets over the past few years. Nevertheless, developments in household balance sheets, both at the aggregate and the disaggregated level continue to warrant close attention.

In the domestic financial system, banks remain highly profitable and well capitalised, benefiting from very low levels of bad debts which, in turn, are a by-product of the long-running economic expansion. Bank balance sheets continue to expand at a relatively fast pace, with business credit growing at around the highest rate since the late 1980s. This strong growth is being accompanied by a significant increase in competition for business loans, with margins declining and a number of lenders taking steps to expand their business lending capabilities. Competition in the housing loan market also remains very intense, with ongoing margin compression. The challenge for banks and other lenders is to avoid an undue erosion of credit standards following 15 consecutive years of economic expansion. As has been noted in previous Reviews, it is important that both borrowers and lenders recognise that the experience of recent years may not be the best guide as to how the future unfolds.

1. The Macroeconomic and Financial Environment

1.1 The International Environment

Developments in the international economy over the past six months have been broadly supportive of financial stability. Global growth remains strong and financial markets have generally coped well with the partial removal of the global monetary stimulus that has been in place since early this decade. At the same time, however, buoyant energy prices and rising capacity utilisation in some countries have contributed to higher headline inflation. Another notable development has been a renewed appetite for debt by the corporate sector, with business credit currently growing at around the fastest rate in more than 10 years in a number of countries.

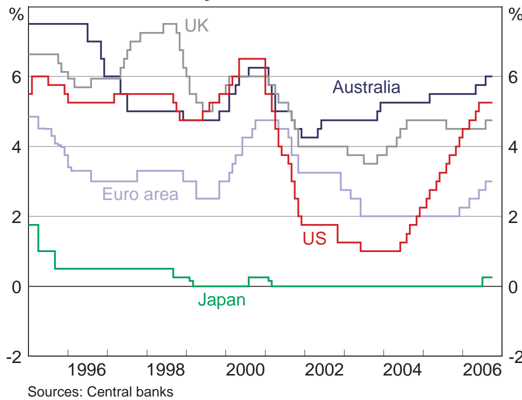
The world economy continues to expand at a solid pace, with GDP growth expected to exceed 5 per cent in 2006 (Table 1). This is the fourth consecutive year in which growth has been above its 30-year average. Growth in both Japan and Europe has picked up over the past year, and the emerging market economies, in particular China, continue to expand strongly. Looking forward, global growth in 2007 is expected to remain strong, although forecasts for the United States have been revised down a little recently. These generally favourable outcomes have meant that, over the past few years, the number of corporate defaults has been at a low level, as has the number of credit rating downgrades.

Table 1: World GDP[(a)]
Year-average percentage change

	2005	2006	2007
		Consensus forecasts (September 2006)	
United States	3.2	3.5	2.6
Euro area	1.5	2.5	1.8
Japan	2.6	2.8	2.2
China	10.2	10.4	9.1
Other East Asia[(b)]	4.8	5.1	4.7
Latin America	4.4	4.8	4.1
Emerging Europe	5.2	6.3	5.6
World	**4.7**	**5.2**	**4.6**

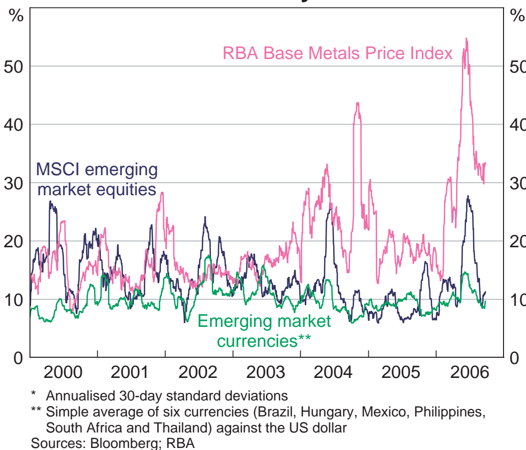
(a) Aggregates weighted by GDP at PPP exchange rates unless otherwise specified
(b) Weighted using market exchange rates
Sources: CEIC; Consensus Economics; IMF; RBA; Thomson Financial

The ongoing expansion of the global economy and strong growth in China have contributed to large increases in the prices of commodities most notably for oil and base metals. As a result, headline inflation has increased, and in many countries, is higher than the average inflation rate of the past decade. There has also been a modest pick-up in underlying inflation in a number



of countries. Reflecting these developments, inflation expectations have also been revised up over the course of the past six months.

The strong growth outcomes and higher inflation have led central banks in the major financial centres to tighten monetary policy in the past six months (Graph 1). As noted in previous Reviews, recent years have been characterised by official interest rates in these centres being at very low levels. These low interest rates have encouraged rapid growth in borrowing by the household sector, and have contributed to increases in the prices of many assets as investors have sought higher-risk asset classes as a way of maintaining absolute returns. The withdrawal of some of the monetary stimulus has, therefore, been a welcome development. The process is most advanced in the United States, with the Federal Reserve having increased official interest rates for a 17th consecutive time in June; the federal funds rate now stands at 5¼ per cent, up from 1 per cent in mid 2004. Official interest rates have also been increased in the euro area and Japan, although in both cases the current setting of monetary policy is still generally viewed as expansionary. Monetary policy has also been tightened in a number of other countries over the past six months, including the United Kingdom, Canada, Switzerland, Sweden, Norway and China. In most countries, financial markets continue to view additional increases in interest rates as more likely than reductions; the most notable exception is the United States, where a softer housing market has contributed to market expectations of a decline in the federal funds rate in 2007.

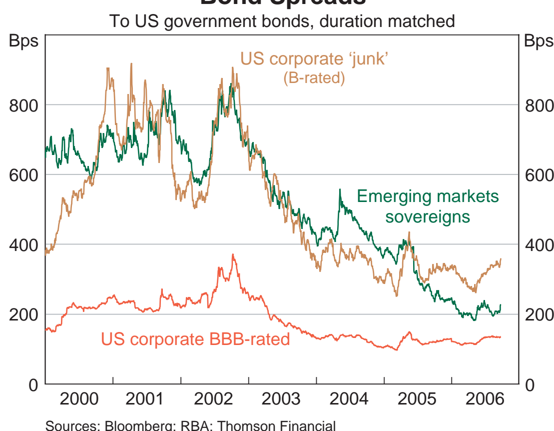


Concerns that the tightening of monetary policy in the largest economies could be the catalyst for significant, and potentially disorderly, adjustments in financial markets have so far proved unfounded. The increases in official interest rates have been well anticipated by markets, and have not led to disruptive adjustments in financial and other asset markets.

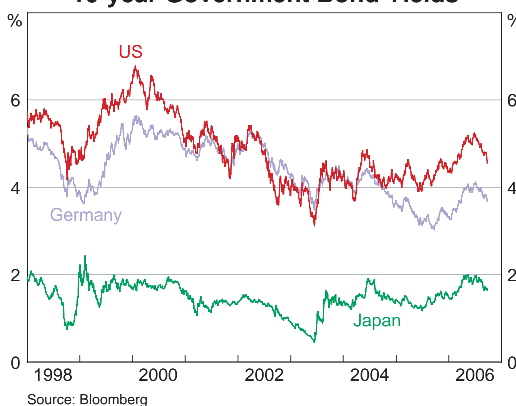
Notwithstanding these benign outcomes, the past six months have seen more volatility in a range of markets than has been the case for some time (Graph 2). This volatility

mainly reflected concerns about the sustainability of high commodity prices and some higher-than-expected inflation outcomes around mid year. Between mid May and mid June, base metals prices, as measured by the RBA Base Metals Price Index, fell by around 20 per cent (in SDR terms), after having risen by more than 50 per cent since the start of the year. Prices have subsequently recovered somewhat, reversing around half of this decline. Similarly, equity prices in emerging market countries have been more volatile over the past six months, with a number of markets experiencing falls of between 25 and 30 per cent over the five weeks to mid June, before recovering some of these losses in subsequent weeks.

The rise in volatility in these markets was associated with an increase in credit spreads on emerging market and lower-rated corporate bonds in May and June, although in some cases spreads have subsequently declined (Graph 3). Overall, credit spreads remain below their average levels of recent years. Spreads on credit default swap indices also widened around the middle of the year but they remain at relatively low levels. On the whole, financial markets have displayed considerable resilience over the past year or so, riding out a number of potentially disruptive events. These include the downgrading of some major corporate bond issuers, political turmoil in some emerging market economies and large losses at some hedge funds.



Overall, the current valuations in many markets continue to factor in expectations of relatively favourable outcomes in terms of inflation and/or economic growth. Credit spreads remain low by historical standards, and while long-term bond yields have increased since the beginning of the year, the increases have been relatively small when viewed against a background of higher official interest rates and the increase in expected inflation (Graph 4).

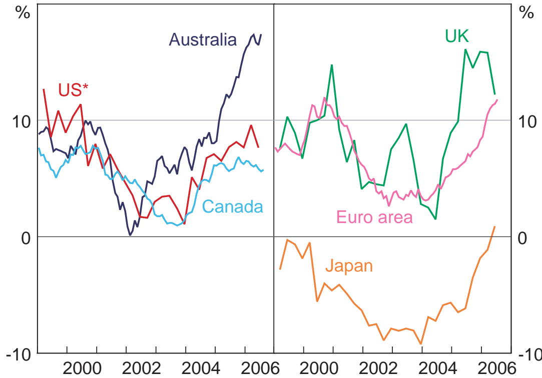


While it is possible that outcomes will continue to be generally favourable, valuations remain susceptible to disappointing economic news, as evidenced by the volatility that surrounded the higher-than-expected inflation outcomes mid year. Given this, it is possible that the extended

Graph 5

Business Credit

Year-ended percentage change

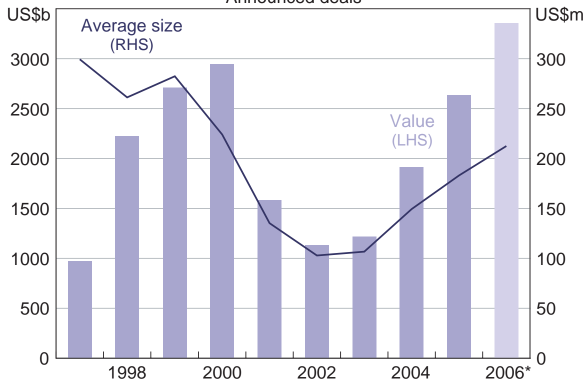


* Growth in total business debt, including non-intermediated debt
Sources: Central banks; Statistics Canada

Graph 6

Mergers and Acquisitions

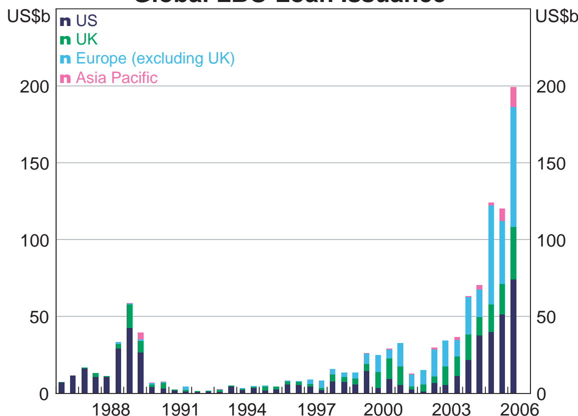
Announced deals



* Eight months to August annualised
Source: Bloomberg

Graph 7

Global LBO Loan Issuance*



* Excludes recapitalisations, bilateral loans and private placements
Source: Dealogic

period of monetary stimulus might yet prove more inflationary than widely expected and that more restrictive policies than are currently factored into market prices may be required in some countries. Equally, of course, there is always the risk that disappointing growth outcomes might undermine the optimism incorporated into current valuations.

One particularly noteworthy development over the recent past has been the pick-up in the growth of business credit in a range of countries (Graph 5). This pick-up reflects low global interest rates and solid prospects for economic growth and comes after an extended period in which growth in business credit had been only modest and, in most countries, had been outpaced by growth in credit to the household sector. Another factor boosting business credit growth is the desire by firms to increase their return on equity through higher leverage, particularly given the large increase in merger and acquisition activity over recent years. In the eight months to August, the value of announced global mergers and acquisitions was US$2.2 trillion, nearly 40 per cent higher than in the corresponding period last year (Graph 6).

A related development is the surge in leveraged buyout (LBO) activity. According to Dealogic, the global value of lending for LBOs in the year to June 2006 was US$324 billion, compared with US$200 billion for the corresponding period in the previous year (Graph 7). In contrast to previous periods of high activity,

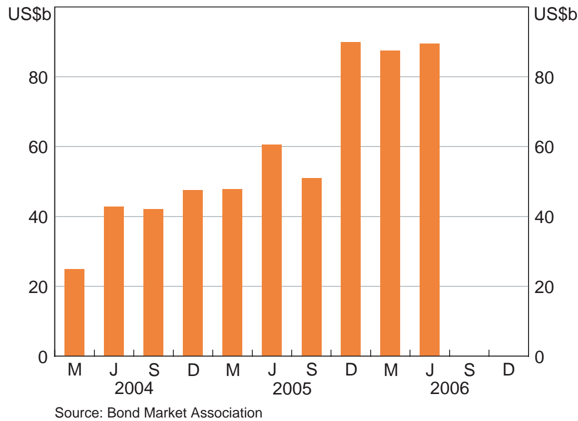
when much of the focus was concentrated in the United States, the latest increase in LBO activity is broadly based, both across countries and industries. While the leverage involved is typically much less than was the case in the late 1980s, it is not uncommon for buyouts to be financed at least two thirds by debt, significantly increasing the leverage of the purchased company. In many cases, the new owners aim to restructure the company and, by taking it private, lessen corporate governance costs and avoid the pressure to meet short-term performance targets that can sometimes face listed companies. While the existing equity holders can sometimes gain significantly from the purchase premium that is often paid in a LBO, existing debt holders can be significantly worse off if the seniority of their debt is not preserved.

Much of the increase in LBO activity is being underpinned by strong inflows into private equity funds. In the year to June 2006, industry estimates suggest that US$110 billion was raised from investors in the United States by these funds, compared with US$70 billion in the corresponding period a year earlier. These funds have been active in forming bidding groups and arranging debt financing, often secured against the cash flows of the target company. Senior secured debt, which can account for two thirds of the debt raised, is typically provided by banks, while lower-ranking mezzanine and subordinated debt is generally provided by institutional investors, including insurance companies, pension funds and hedge funds.

In addition to private equity, there continues to be large inflows into hedge funds and a strong appetite for structured finance products. This strong demand for alternative investments reflects a number of factors, including the combination of above-average global growth and relatively low global interest rates. As discussed in previous Reviews, low interest rates have prompted investors to seek out alternative higher-yielding investments, and positive growth outcomes have encouraged some investors to revise down their perceptions of the risk involved in alternative asset classes.

Investor inflows into hedge funds remained strong in the first half of 2006 at around US$66 billion, double the average rate of the past three years. These inflows have added depth to a number of financial markets, including the credit derivatives market, as hedge funds are generally quite active portfolio managers. Nonetheless, it is not clear that this liquidity will remain during periods of stress, owing to the very large positions of some hedge funds and the possibility of 'herd like' behaviour as funds seek to exit positions simultaneously. Another consequence of the strong growth in assets under management of hedge funds is intensified competition between banks to provide 'prime brokerage' services. This competition has led to concerns that banks are reducing margin requirements for hedge funds and providing relatively easy access to finance in order to win business.

Innovations in structured finance have also played a key role in providing access to higher-risk investments. According to the US-based Bond Market Association, global issuance of funded collateralised debt obligations (CDOs) amounted to US$177 billion in the first two quarters of 2006, compared with US$108 billion in the corresponding period last year (Graph 8). One concern is that investors may not fully understand the risks they are assuming, given the complexity of some of the products. This raises the possibility that a less favourable environment,

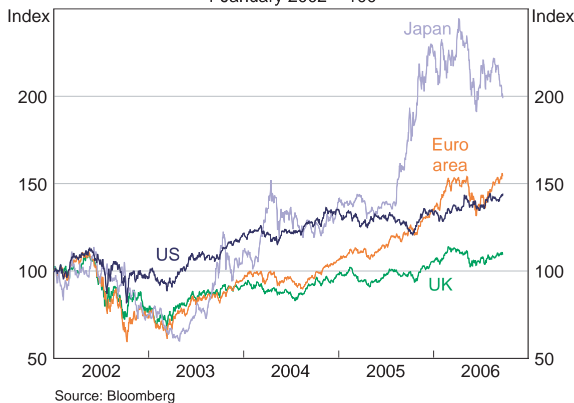


in which the risks become more evident, could be the catalyst for market turbulence as investors adjust their portfolios.

Overall, despite continuing strong demand for historically risky investments, the international financial system has performed well over the past six months. While a continuation of the benign outcomes is possible, at some point conditions are likely to be less favourable than is currently the case. One concern is that in such an environment the basic assumptions that underpin current asset values and investment strategies would need to be reassessed, prompting large and potentially disruptive balance-sheet adjustments. The risk of this occurring is increased by the complexity and lack of transparency of many investment products.

Financial Institutions

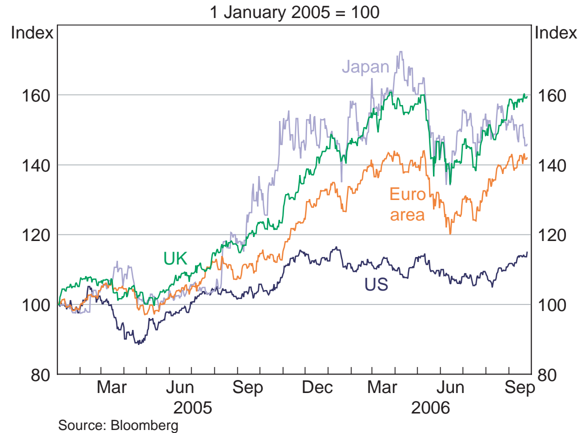
The strong global economy and increase in financial market activity have been a boon for financial institutions. Banks and security houses are reporting record profits and balance sheets continue to expand strongly. The newer segments of the credit risk transfer and structured finance markets, where the risk of illiquidity (and operational risk) is perhaps greatest, continued to operate in an orderly fashion. While banking sector share prices in most countries declined in May due to increased uncertainty about the outlook for growth and inflation, they subsequently recovered much of this decline (Graph 9).



Bank profitability in the United States has been strong despite a further tightening of margins in a rising interest rate environment. Similarly, in the United Kingdom bank profits have grown rapidly, particularly those arising from investment banking activities, though there are signs that bad debt expenses are on the rise. The profitability of Japanese banks continues to recover, driven by the stronger economic environment and lower levels of non-performing loans. Euro-area banks have also had strong results on the back of increased fee income, continued strong lending to the household sector and an improvement in lending to businesses.

Despite record insured losses from natural catastrophes in 2005 – estimated to be around US$80 billion – the global insurance industry remains profitable. This strong financial position reflects the combination of several years of high investment returns and positive underwriting results. Reinsurers have increased premiums for coverage of natural disasters, leading direct insurers to also increase premiums in catastrophe-related business, and in some cases to reduce coverage in risky areas.

Overall, broad insurance sector share price indices weakened in May, though they have subsequently recovered somewhat (Graph 10). Credit markets appear comfortable with the outlook for the sector, with spreads on insurers' credit default swaps approaching record lows, after rising in the aftermath of Hurricane Katrina and again in May-June this year.

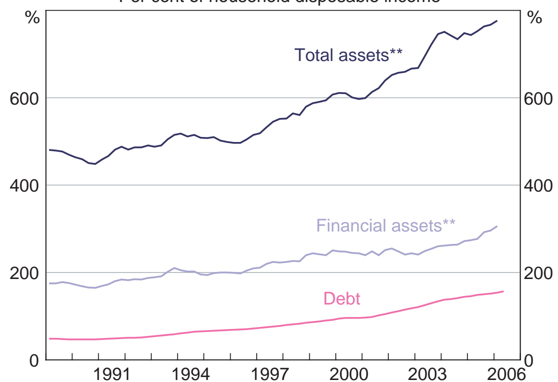


1.2 The Domestic Environment

Domestic economic and financial conditions also remain broadly favourable from a financial stability perspective. The economy is in its 15th consecutive year of economic expansion and the unemployment rate is around its lowest level in three decades. The household sector, in aggregate, has adjusted relatively smoothly to the changed dynamics of the housing market over recent years, although there is clearly a diversity of experience across individual households. In the business sector, developments are broadly reassuring, with balance sheets in good shape. Businesses have, however, significantly increased their borrowings, with business credit growing at the fastest pace since the late 1980s.

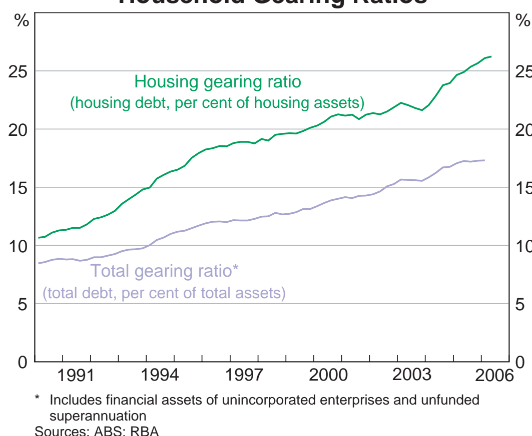
Household Sector

As noted in previous Reviews, the structure of household balance sheets has changed considerably over the past decade or so, with a marked rise in both debt levels and the value of the household sector's assets relative to disposable income (Graph 11). Over this period, leverage of the household sector has increased, but so too has the sector's net worth



Graph 12

Household Gearing Ratios



* Includes financial assets of unincorporated enterprises and unfunded superannuation

Sources: ABS; RBA

Table 2: Household Assets

March 2006

	Share of total	Year-ended growth
	Per cent	Per cent
Dwellings	56.8	5.5
Consumer durables	3.5	5.1
Financial assets[(a)]	39.6	18.8
Superannuation and life offices[(b)]	21.4	20.2
Shares and other equities	8.0	26.6
Currency and deposits	8.1	9.3
Other	2.2	17.9
Total	**100.0**	**10.4**

(a) Includes unincorporated enterprises

(b) Includes unfunded superannuation

Sources: ABS; RBA

(Graph 12). Currently, the net worth of the household sector – measured as the difference between the value of its assets and its liabilities – is equivalent to around 6¼ times annual disposable income, up from 4½ times annual income in the mid 1990s.

Over the past few years, net worth has grown broadly in line with income, after increasing more strongly than income for a number of years. On the asset side of the balance sheet, the household sector has recently benefited from large gains in the value of its financial assets, primarily due to the strength of equity markets. Over the year to March 2006, household holdings of financial assets increased by 18.8 per cent, the highest rate of increase since June 1987 (Table 2).

In contrast to households' holdings of financial assets, the value of real estate assets has grown only modestly over the past few years. House prices increased at an average annual rate of around 12 per cent from end 1997 to end 2003, but since then measures of national house prices show relatively little net change. Indicators suggest that, overall, the market has been a little firmer recently than it has been for much of the past two years or so, although there is significant variation across cities. In Sydney, the market remains subdued, whereas in Perth, prices have increased by more than 30 per cent over the past year (Table 3). At the national level, the ratio of house prices to disposable income has declined over the past two years, although it remains high both by historical and international standards (Graph 13).

The slightly firmer tone in the housing market has been associated with a modest increase in the pace of household borrowing. Household credit increased at an annualised rate of 14.7 per cent over the six months to July 2006, up from 12.1 per cent over the six months to January 2006. This pick-up is evident in housing lending to both owner-occupiers and investors (Graph 14). There has also been an increase in the value of housing loan approvals, although the ratio of approvals to credit outstanding remains considerably below the peak reached in 2003.

Table 3: House Prices
Year-ended percentage change, June 2006

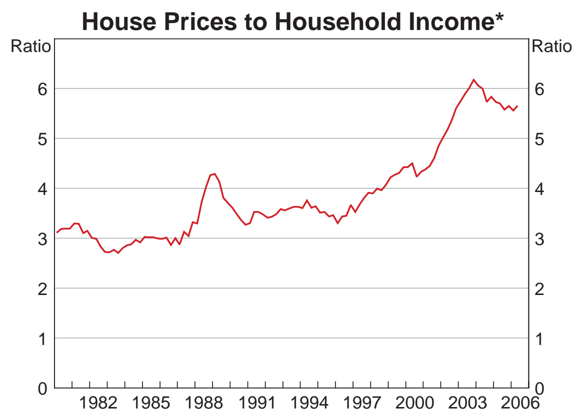
	ABS	APM	REIA	Residex
Sydney	-0.5	-0.8	-0.8	1.4
Melbourne	5.5	3.6	4.2	6.9
Brisbane	4.5	5.2	3.5	5.4
Adelaide	7.3	6.5	4.2	3.3
Perth	35.4	39.0	33.9	36.3
Canberra	6.7	3.6	7.8	5.0
Hobart	7.4	8.0	6.5	10.0
Darwin	18.7	21.8	25.1	11.7
Australia	**6.4**	**6.3**	**5.3**	**9.2**

Sources: ABS; APM; RBA; REIA; Residex

Growth in personal credit has also increased slightly over the past six months (Table 4). Credit card debt grew at an annualised rate of 15.4 per cent over the six months to July, compared with an average of 13 per cent over the preceding four years. In part, this is explained by the wider availability of low-interest-rate cards, which make it considerably less expensive for individuals to carry credit card debt. Margin lending has accounted for some of the growth in the fixed and revolving components. Over the year to June, margin loans – used to purchase equities and invest in managed funds – grew by 39 per cent, compared with 30 per cent over the previous year. This growth reflected both an increase in the number of margin loans and an increase in their average size.

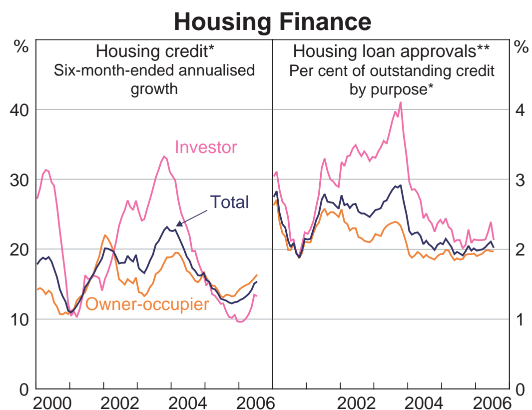
As has been discussed in previous Reviews, the household sector, in aggregate, is devoting an increasing share of its income to interest payments. In the June quarter, the ratio of interest payments to household disposable income stood at 11.4 per cent, up from an average

Graph 13
House Prices to Household Income*



* Average annual household disposable income, excluding unincorporated enterprises. Income is after tax and before the deduction of interest payments.
Sources: ABS; RBA; REIA

Graph 14
Housing Finance

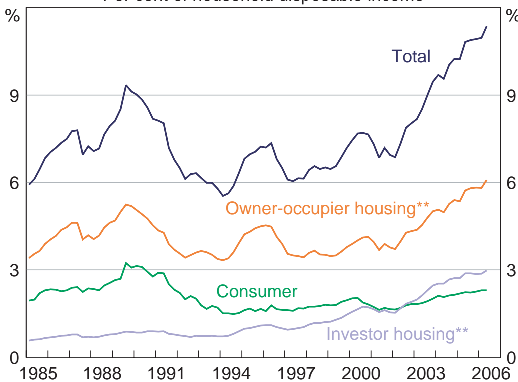


* Includes securitised loans
** Excludes refinancing of owner-occupier loans and approvals for new construction by investors
Sources: ABS; RBA

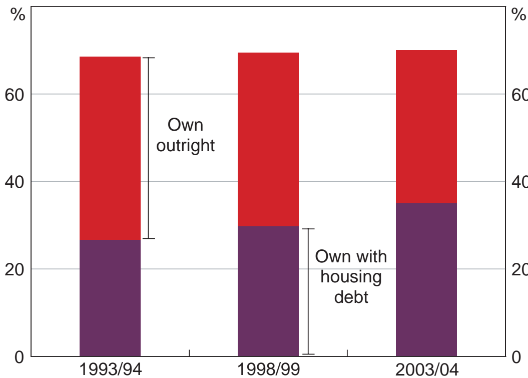
Component	Share of total	Six-month-ended annualised growth	
		January 2006	July 2006
Fixed	52.4	7.4	10.3
Credit card	25.8	11.1	15.4
Non-credit card revolving	21.8	7.2	7.1
of which: secured by housing	14.8	7.7	4.4
Total	**100.0**	**8.4**	**10.7**

Table 4: Personal Credit
Per cent, July 2006

Source: RBA



* Includes the imputed financial intermediation service charge. Income is after tax and before the deduction of interest payments.
** Based on shares of housing credit.
Sources: ABS; RBA



Source: ABS

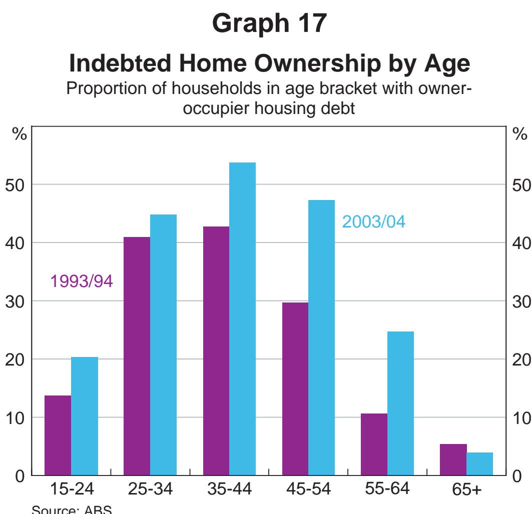
of 6¾ per cent in the 1990s, and 2 percentage points higher than the previous peak in September 1989 (Graph 15). Given current mortgage rates and ongoing household credit growth, this servicing ratio is likely to rise further in the period ahead.

The increase in this ratio is explained by a number of factors.

One is an increase in the number of households with an investment property. In 2003/04, 10½ per cent of taxpayers had a geared property investment, up from 7 per cent a decade earlier. With growth in investor credit averaging 21 per cent per year over the past decade, the ratio of interest payments on investor loans to household income currently stands at around 3 per cent, up by 2 percentage points since the mid 1990s. This rise accounts for almost half of the increase in the overall servicing ratio.

A second factor is the increase in the share of households with an owner-occupier mortgage (Graph 16). This increase has occurred despite rates of home ownership remaining broadly unchanged over the past decade.

According to the ABS Household Expenditure Survey, in 2003/04 (the most recent year for which data are available) around 35 per cent of households reported that they had an owner-occupier mortgage, up from 27 per cent in 1993/94. The increase has been most pronounced for middle-aged households with, for example, almost 50 per cent of households with the head aged between 45 and 54 years having an owner-occupier mortgage in 2003/04, up from 30 per cent ten years earlier (Graph 17).



This increase in the share of older households with an owner-occupier mortgage partly reflects a willingness to carry debt later in life. Households appear to be increasingly prepared to use the equity in their houses for a range of purposes, and to take on additional debt later in life to 'trade up' houses. In addition, as households take on larger debts relative to their incomes, the average time taken to pay off debt is likely to have risen.

A third factor has been a broad-based easing of credit standards, which has allowed borrowers to take out loans with repayments as a share of gross income well above the 30 per cent maximum that commonly prevailed until the mid 1990s. However, while some borrowers have taken full advantage of this greater borrowing capacity, most have not. The share of average disposable income required for principal and interest payments on the average new owner-occupier housing loan is currently just under 28 per cent, below the comparable figure in 1989, although this average undoubtedly conceals considerable variation across households (Table 5).

While some new borrowers have debt-servicing burdens higher than was the case historically, much of the increase in the aggregate servicing burden reflects the greater number of households with debt, either for investor or owner-occupier purposes. Nonetheless, the increase in the aggregate servicing ratio does mean that the financial position of the household sector is more sensitive to changes in the economic and financial climate than was the case a decade ago.

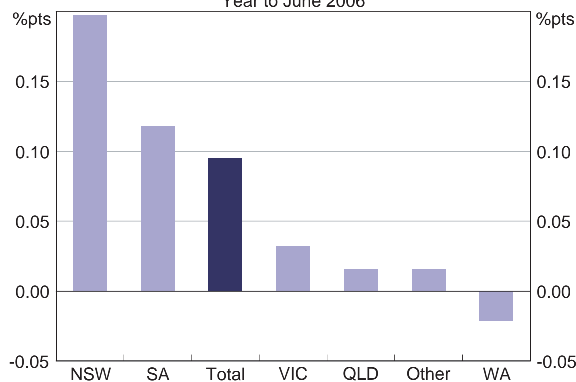
Aggregate indicators of stress in household finances, however, continue to show a reasonably healthy overall picture. While the arrears rate on mortgages has increased recently, it remains low both by historical and international standards (see the *Financial Intermediaries* chapter). The higher arrears rate is hardly surprising, given the general lowering of credit standards that has occurred since the mid 1990s. Lower lending standards, and the resulting greater availability of credit, mean that at any given level of unemployment and interest rates, a higher share of housing loans can be expected to be in arrears than in the past.

Table 5: Average Mortgage Repayments on New Owner-occupier Mortgages

September quarter	Average loan size [a]	Mortgage rate [b]	Minimum repayment
	$	Per cent	Per cent of average household disposable income [c]
1989	67 495	17.0	30.4
1995	97 997	10.5	23.7
2000	132 722	7.7	21.5
2005	222 455	6.8	26.8
2006[d]	230 562	7.2	27.7

(a) Excludes refinancing, except 1989.
(b) The banks' average standard variable housing rate prior to 2000; thereafter, the actual interest rate paid (including discounts) on new loans. The 2006 observation is calculated assuming the average discount in December 2005.
(c) Principal and interest repayments on a 25-year mortgage with monthly repayments using the mortgage rate and average loan size; average household income is before the deduction of interest payments and excludes unincorporated enterprises.
(d) Estimate for 2006 using June quarter average loan size; household income to June.
Sources: ABS; RBA

While the aggregate arrears rate is still low, there is considerable variation across different groups of borrowers. For example, according to securitisation data, the arrears rate for borrowers who took out mortgages in 2003 and 2004 is considerably higher than for borrowers who took out mortgages in earlier years. For loans taken out in these two years, the weighted-average arrears rate 18 months after settlement was around 0.5 per cent; the equivalent arrears rate for loans taken out in 2001 and 2002 was 0.2 per cent. Borrowers that took out a loan in 2003 and 2004 are more likely to have bought at around the peak of the market and, with the higher level of interest rates, have had less opportunity to build up repayment buffers. Moreover, a higher share of loans securitised in these two years are 'low doc' loans, which have a higher arrears rate than conventional loans.



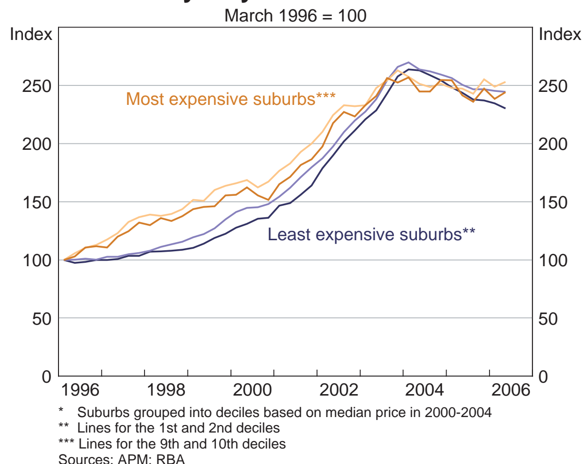
Arrears rates also vary across States, with New South Wales recording the largest increase over the past year (Graph 18). This is consistent with reports from mortgage insurers and debt collectors that suggest a rise in mortgagee sales in New South Wales. Disaggregated data suggest that the boom in house prices in Sydney continued for longer in those parts of the city with historically less expensive properties, and the subsequent decline in prices in these areas has been more pronounced (Graph 19). Data from

the Australian Taxation Office also show that there was a greater tendency for individuals living in these areas to purchase an investment property in 2003/04 (Graph 20). Many of these individuals have seen a decline in the value of their investments.

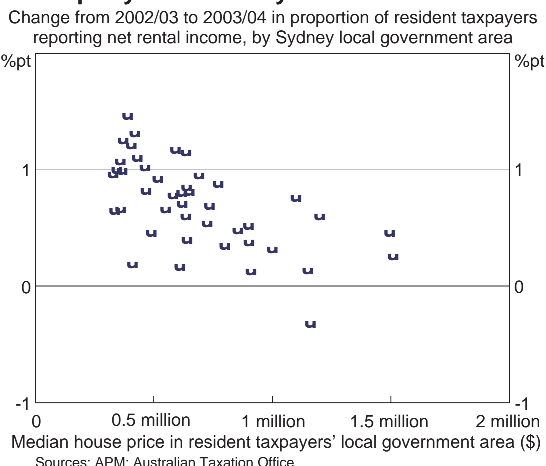
Another commonly used indicator of the health of household finances is the behaviour of credit card borrowers. Recently, growth in credit card balances, particularly those accruing interest, has picked up, although, as noted above, this development is partly explained by the emergence of low-rate credit cards which make it considerably less expensive for consumers to carry credit card debt (Graph 21). In contrast to housing loans, there has been no increase in the aggregate arrears rate on credit cards in recent years.

The number of personal administrations – another potential indicator of the health of household finances – has risen over the past six months, but remains below its peak reached in the June quarter 2001. Survey data show that households still view their finances reasonably favourably, although sentiment is less positive than it has been, on average, over recent years (Graph 22). Sentiment fell sharply in August, following an increase in official interest rates and higher oil prices, but recovered much of this decline in September.

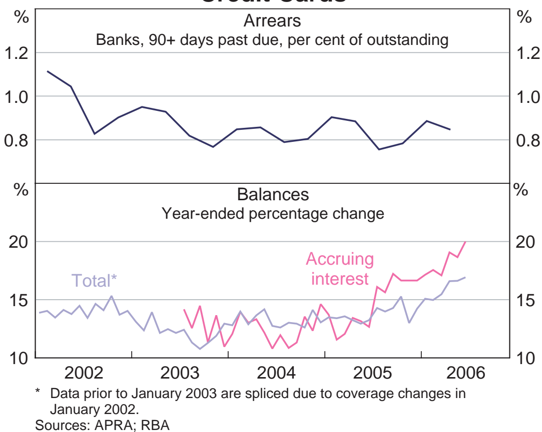
Overall, aggregate measures of the health of household finances show a reasonably positive picture,



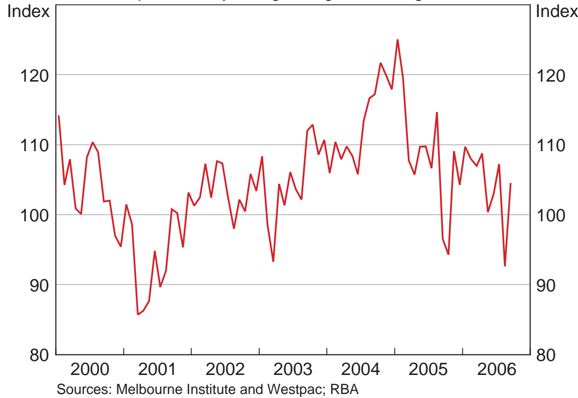
* Suburbs grouped into deciles based on median price in 2000-2004
** Lines for the 1st and 2nd deciles
*** Lines for the 9th and 10th deciles
Sources: APM; RBA

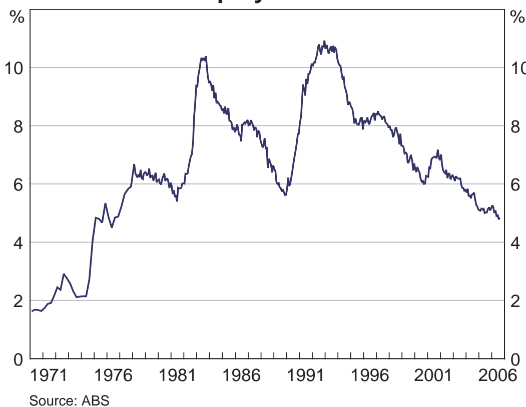


Sources: APM; Australian Taxation Office



* Data prior to January 2003 are spliced due to coverage changes in January 2002.
Sources: APRA; RBA





with solid growth in household disposable income, increases in net wealth and the unemployment rate around its lowest level in 30 years (Graph 23). Despite some households' finances being stretched by recent developments, the household sector as a whole appears to be in sound condition. Given the changed dynamics of the housing market, households look to be taking a more cautious approach to their finances than was the case a few years earlier, although strong growth in household borrowing suggests that many households remain willing to take on further debt for the purchase of both housing and other assets. Reflecting this more cautious approach, consumption has increased broadly in line with income over the past couple of years, after having increased more rapidly than income over the previous decade. Looking forward, developments in household finances – both in aggregate and at a disaggregated level – will continue to warrant close attention.

Business Sector

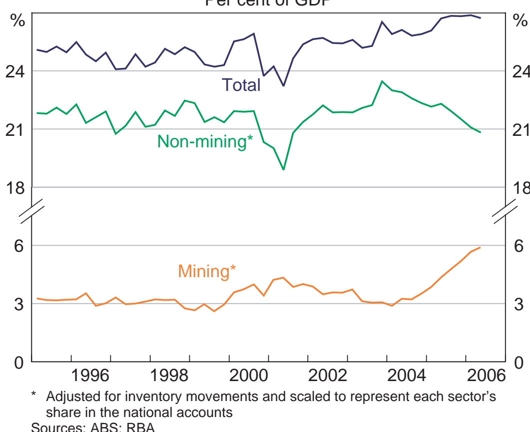
The business sector continues to experience favourable financial conditions, with aggregate indicators showing strong balance sheets and high profits. To a significant extent, the strong aggregate position reflects developments in the resources sector, which is benefiting from a large rise in the terms of trade.

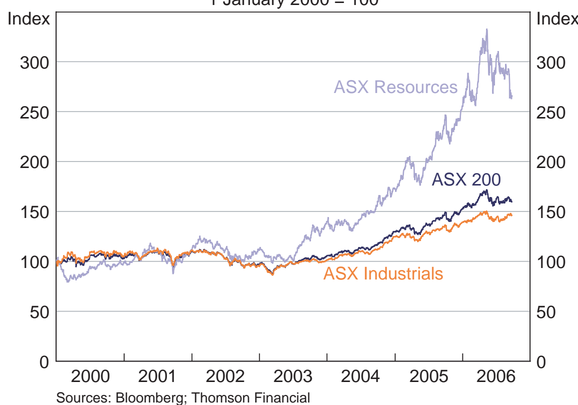
Aggregate business sector profits, as measured by the gross operating surplus of private non-financial corporates and gross mixed income of the unincorporated sector, grew by 6.6 per cent over the year to June and, as a share of GDP, are above the average of the past decade (Graph 24). This aggregate outcome, however, masks significant variation at a sectoral level. The mining sector continues to be the predominant contributor to overall growth in profits, with profits increasing by around 44 per cent over the year to June 2006. By contrast, profit growth has been relatively subdued in the non-mining sector, where profits as a share of GDP are slightly below the average of the past decade.

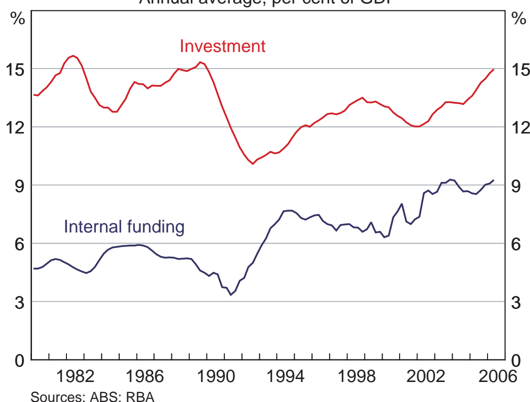
The relative strength in the mining sector is reflected in movements in equity prices. Notwithstanding recent falls, the ASX Resources index has gained 12.7 per cent over the year to late September, outpacing the broader industrials category, which increased by 8.4 per cent (Graph 25).

Given the positive aggregate environment, investment growth has been strong, with investment as a share of GDP at around the highest level recorded in the past 25 years (Graph 26). Mining sector investment has risen particularly sharply, increasing by almost 80 per cent over the past year, though capital expenditure has also grown in most other sectors. In aggregate, firms have considerably more internal funding available to finance expenditure than on previous occasions when investment spending has been this high. Strong profitability has meant that aggregate internal funding, as a share of GDP, is around its highest level on record.

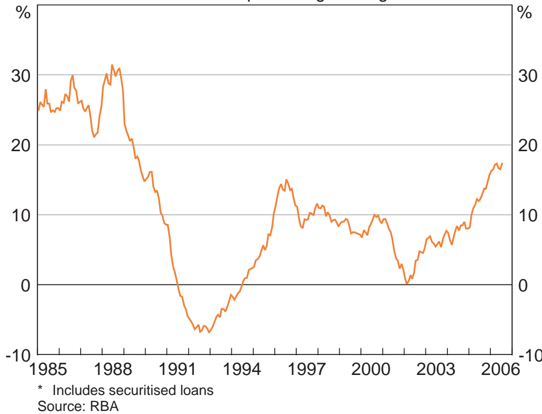
Notwithstanding the ready availability of internal funding, the increase in investment has been associated with a strong increase in business sector borrowing. Over the year to July 2006, business credit grew by 17.4 per cent, the fastest rate since the late 1980s (Graph 27). The rapid growth has been associated with strong competition among intermediaries for business lending, which is continuing to compress lending margins (see the *Financial Intermediaries* chapter). Liaison with banks suggests that growth







Graph 27



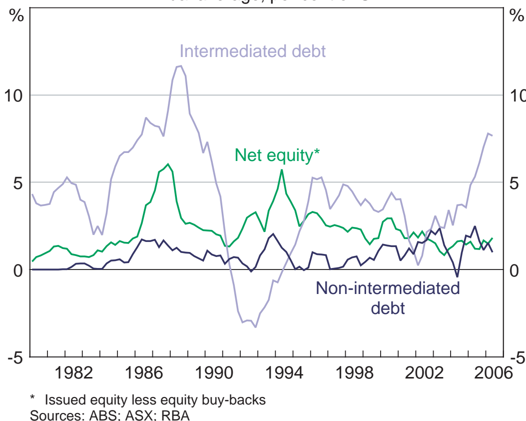
* Includes securitised loans
Source: RBA

Table 6: Banks' Business Lending by Industry
June 2006

Industry	Share of total	Year-ended growth
	Per cent	Per cent
Construction	4.8	9.6
Manufacturing	8.4	18.5
Mining	1.6	19.9
Wholesale trade, retail trade, transport and storage	14.6	16.9
Agriculture, fishing, etc	9.9	10.9
Finance and insurance	14.2	26.0
Other	46.4	17.4
Total	**100.0**	**17.5**

Source: APRA

Graph 28



* Issued equity less equity buy-backs
Sources: ABS; ASX; RBA

in business credit is broadly based across sectors, a finding supported by the limited data available (Table 6).

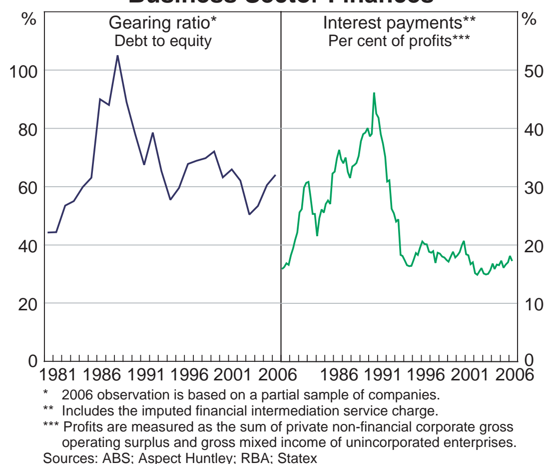
Net financing through capital markets has grown less rapidly than borrowing from intermediaries (Graph 28). While market conditions remain favourable for debt and equity issuance, the aggregate funds raised through new bond and equity issuance have been partly offset, respectively, by maturities and an increase in share buy-backs. Although overall borrowing has increased sharply, the amount raised through net equity raisings remains well down on previous years, consistent with high profits and moves by some companies to increase gearing.

Despite the growth in debt, aggregate financial indicators remain in good shape. The debt-to-equity ratio for listed corporates shows a mild increase in gearing to around 65 per cent, but remains well below the peak levels reached in the late 1980s (Graph 29). In contrast to the servicing burden for the household sector, the ratio of business interest payments to profits remains at a historically low level, with strong growth in aggregate profits offsetting the increased interest payments arising from higher debt and interest rates. Consistent with strong profit growth, the gearing and interest burden of the mining sector are much lower than the aggregate.

Ratings actions also reflect the positive corporate environment, with more upgrades than downgrades by Standard & Poor's over the past year. Indicators of corporate credit

quality also remain favourable, with credit default swap (CDS) prices remaining at low levels, and arrears on business loans falling over the past year (Graph 30).

The commercial property market, a business sector exposure that has previously been a source of financial difficulty for financial intermediaries, continues to be associated with strong growth in prices and borrowing. Over the year to March 2006, bank lending for commercial property rose by 18.3 per cent, following a similar increase over the preceding 12 months. Office property prices rose by 13¾ per cent over the year to June, the strongest annual growth since September 2000, while industrial property prices rose by 11½ per cent over the same period (Table 7). The strong performance is also evident in listed property trusts, with the ASX 200 Property Trust Accumulation index rising by 21 per cent over the year to late September. As in residential property, commercial property conditions vary around the country, with the



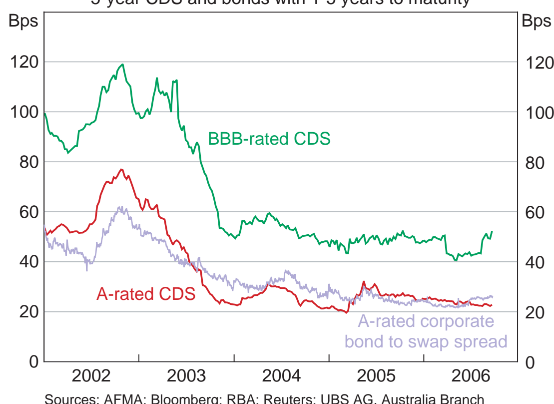
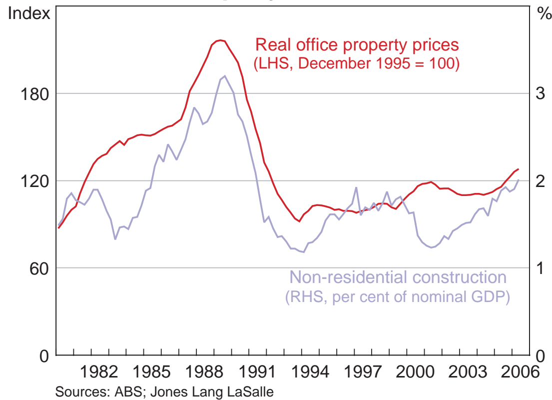


Table 7: Commercial Property

Year-ended percentage change

	Office Property Prices		Industrial Property Prices	
	Year to June 2006	Three years to June 2005 (b)	Year to June 2006	Three years to June 2005 (b)
Sydney	9.1	3.4	12.0	6.2
Melbourne	12.5	-1.2	9.3	5.4
Brisbane	27.1	4.6	10.6	13.4
Adelaide	13.1	8.7	5.6	10.0
Perth	35.9	5.7	16.6	6.9
Canberra(a)	5.7	5.5	–	–
Australia	**13.7**	**2.9**	**11.6**	**6.6**

(a) Industrial capital values data are not available for Canberra
(b) Average annual percentage change
Source: Jones Lang LaSalle



largest price gains in office property recorded in Brisbane and Perth. While the fast growth in property prices and borrowing suggests some potential for an increase in risks in the commercial property market, at an aggregate level, developments are sounder than those seen prior to the collapse in the market in the early 1990s. In the office property sector, prices generally remain below their late 1980s peak, and construction remains well below the pace that led to over-development in the 1980s (Graph 31).

Overall, the strength of aggregate profits and a relatively low interest burden suggest that current developments in the business sector do not pose a near-term risk to financial stability. To some extent, however, the favourable aggregate picture reflects the performance of the resources sector in the strong commodity price environment and, as always, the health of the business sector remains dependent on the broader economy.

2. Financial Intermediaries

Consistent with the underlying strength of the domestic economy, Australian financial intermediaries continue to perform strongly. Banks are well capitalised and highly profitable and other financial institutions, including insurance companies, are recording generally positive results. Profitability in the banking sector continues to be supported by very low levels of bad debt expenses although mortgage arrears have increased recently, partly reflecting the general lowering of credit standards over the past decade. Competition remains very strong, and has recently intensified in lending to businesses, with business credit currently growing at its fastest pace since the late 1980s.

2.1 Deposit-taking Institutions

Profitability

The Australian banking sector remains highly profitable. In the latest half year, aggregate before-tax profits of the five largest banks were around 10½ per cent higher than in the corresponding period a year earlier (Table 8). The annualised pre-tax return on equity for these five banks was 28 per cent, significantly higher than the outcomes over the past decade or so, although this increase largely reflects changes arising from the implementation of the International Financial Reporting Standards (IFRS) (Graph 32). Amongst other things, these changes have seen some hybrid capital instruments classified as debt, whereas previously they were classified as equity (see Box A). An alternative measure of profitability which is less affected by the accounting

Table 8: Banks' Half-year Profit Results[(a)]

Five largest banks, consolidated

	2006 $b	Growth [(b)] Per cent	Per cent of average assets [(c)]
Income			
Net interest income	14.6	–	2.0
Net income from wealth management	3.3	21.1	0.4
Other non-interest income	6.9	–	0.9
Expenses			
Operating expenses	11.9	-2.1	1.6
Bad and doubtful debts	1.0	-4.8	0.1
Profit[(d)]			
Net profit before tax	12.0	10.5	1.6
Net profit after tax	8.0	0.2	1.1

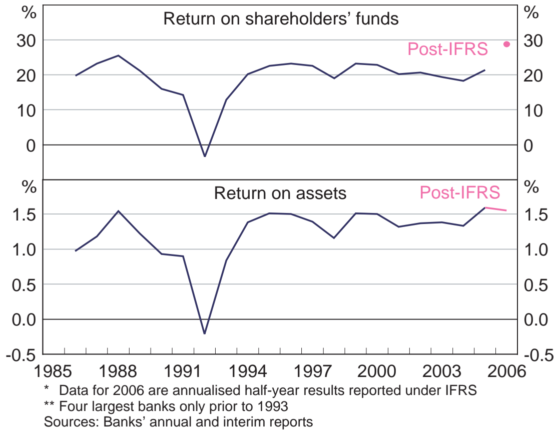
(a) The six months to March 2006 for ANZ Banking Group, National Australia Bank, St George Bank and Westpac Banking Corporation; and the six months to June 2006 for the Commonwealth Bank of Australia.

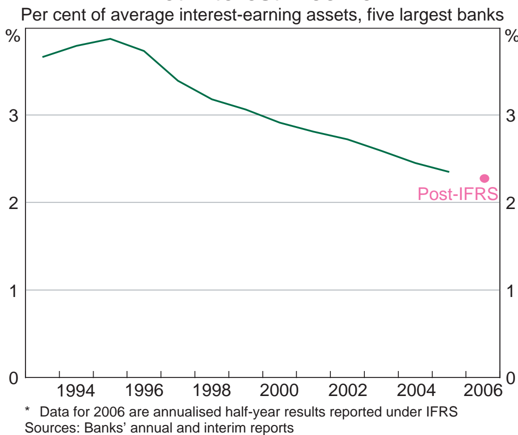
(b) Compared to the corresponding period in 2005. Some items are not directly comparable due to the introduction of IFRS.

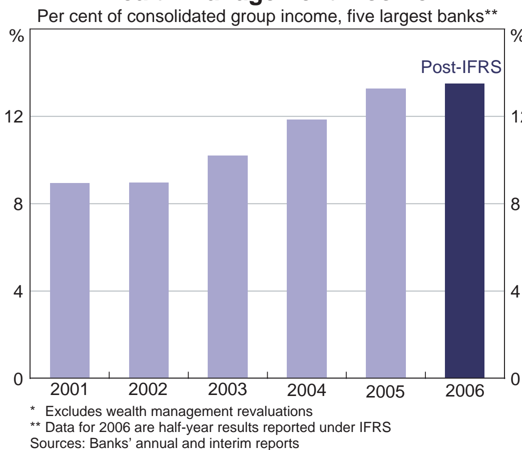
(c) Annualised half-year results.

(d) Before outside equity interests.

Sources: Banks' annual and interim reports







changes is the return on assets; this measure suggests that the recent outcomes are broadly in line with those recorded over the past decade or so.

The banking sector's strong profit growth has been associated with robust balance sheet expansion. Total assets on the domestic balance sheet of the banking sector increased by around 16 per cent over the year to June 2006, with the assets of foreign-owned banks growing particularly strongly, by around 25 per cent over the period. The composition of the balance sheet growth has, however, changed somewhat, with growth in business credit now exceeding that in household credit. Over the past year, banks' lending to businesses increased by 19 per cent. In contrast, on-balance sheet lending to the household sector grew by around 12 per cent over the same period, compared to annual growth of around 20 per cent at the peak of the housing market in 2003.

Banks' interest margins continue to be under downward pressure, although the accounting changes associated with IFRS make comparisons with the past difficult. In the latest half year, net interest income for the five largest banks was the equivalent of 2.3 per cent of their interest-earning assets (Graph 33).

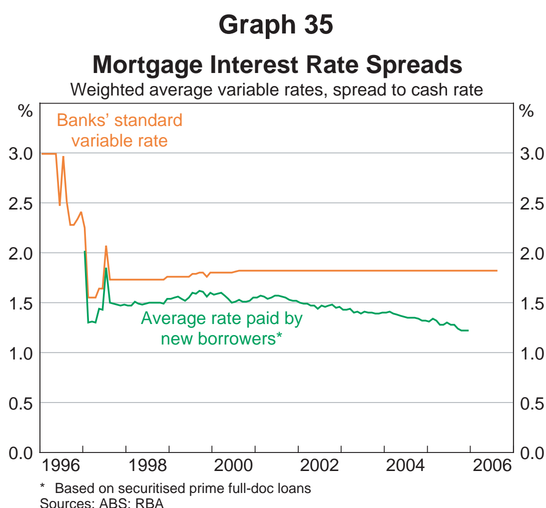
Somewhat offsetting the pressure on margins, banks have benefited from stronger growth in non-interest income, particularly from wealth management activities. In the latest half year, wealth management income accounted for around 13 per

cent of the five largest banks' total income, with other forms of non-interest income accounting for a further 28 per cent of total income (Graph 34). In the latest half year, income from wealth management was over 20 per cent higher than in the same period a year ago, partly reflecting increases in equity prices.

Lending and Competition

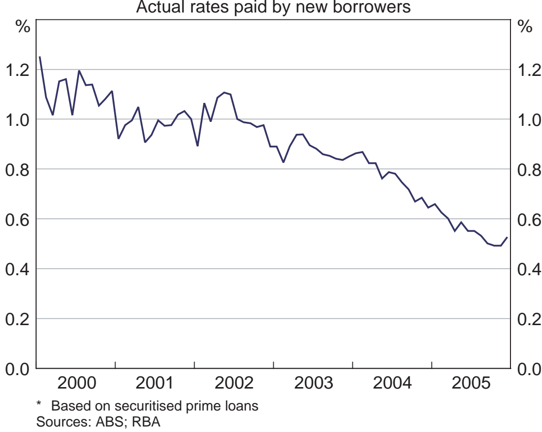
An important factor contributing to the erosion of net interest margins is the strong competition amongst lenders, and increasingly, amongst banks, for deposits. This strong competition has also been associated with a number of changes to lending practices. These changes have been particularly pronounced in the housing loan market and have been discussed at length in previous Reviews. They include: an increase in permissible debt-servicing burdens and loan-to-valuation ratios; an increased reliance on brokers to originate loans; the use of alternative property-valuation methods; and the wider availability of 'low doc' loans.

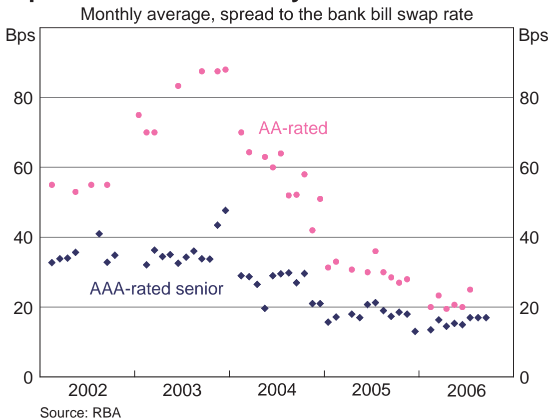
As growth in the demand for housing finance has slowed over the past couple of years, competition amongst lenders has remained intense, with many lenders attempting to maintain strong growth in their mortgage portfolios. The vast majority of new borrowers now pay less than the major banks' standard variable home loan indicator interest rate. While discounts are sometimes negotiated by customers, they are increasingly featuring in banks' product advertising. The average rate paid by new borrowers was around 60 basis points below the major banks' standard variable rate as of late 2005, compared to an average discount of 40 basis points two years earlier, and discounts of around 70 basis points are now common on loans for more than $250 000 (Graph 35).



Another notable development in the mortgage market has been the emergence of lenders that focus on direct distribution of housing loans via the internet or telephone. These online lenders (some of which are owned by banks) tend to have lower administrative and distribution costs than do many other lenders. As a result, they offer discounts as high as 125 basis points to the major banks' standard variable rate, although the range of home loans they offer is often relatively limited.

There have also been strong competitive pressures in the low-doc housing loan market. Low-doc loans involve a large element of self-verification in the application process, particularly around earnings, and are designed for those borrowers, such as the self-employed, who do not have the documentation required to obtain a conventional 'full doc' mortgage. The interest rate premium charged on these riskier loans has fallen substantially, with the margin between the average interest rate paid on new low-doc loans and that on full-doc loans falling from





over 100 basis points five years ago, to around 50 basis points at the end of 2005 (Graph 36). In aggregate, low-doc loans are estimated to have accounted for just under 10 per cent of new housing loans in 2005. While these loans account for up to 30 per cent of some regional banks' housing loan portfolios, banks were generally later to enter this market than were a number of specialised non-bank lenders.

The competition in the mortgage market is being sustained, in part, through the ability of banks and non-banks to tap the capital market for attractively priced funding through the issuance of residential mortgage-backed securities (RMBS). The spreads that investors require to hold RMBS have fallen consistently in recent years. For example, AAA-rated RMBS have recently been issued at spreads of around 15 basis points over the bank bill swap rate, compared to around 35 basis points a few years ago (Graph 37).

Another factor affecting competition in the housing loan market is the presence of third-party brokers. Amongst other things, brokers have allowed smaller, regional banks to compete more effectively outside their traditional geographical areas. Reflecting this change, regional banks have increased the share of their on-balance sheet housing loans to borrowers outside their home State to around 39 per cent, from around 32 per cent four years ago. In aggregate, around one third of new housing loans are originated through brokers, though this figure varies significantly across banks.

Robust competition in personal lending, particularly credit cards, is also evident. An increasing number of lenders, including each of the five largest banks, have begun offering low-rate credit cards with interest rates between 9 and 13 per cent, compared to around 17 per cent on traditional cards. These are often 'no frills' products, though some low-rate cards offering reward points have recently been introduced.

With housing lending growth having slowed considerably from its peak in early 2004, banks have refocussed their attention on lending to the business sector. Over the year to July 2006, bank business credit grew by 19.4 per cent, up from 10.6 per cent over the preceding year, and faster than the 16.2 per cent growth in bank housing credit (including securitisations) (Graph 38). Data from APRA's survey of bank business credit suggest that this strong growth was most pronounced in loans with a value of over $2 million, which are typically to large businesses and account for over 60 per cent of outstanding business lending (Table 9).

As in other segments of the loan market, increased competition in business lending has, in part, been spurred by newer entrants. Foreign-owned banks in Australia have been expanding their lending to businesses at a rapid rate recently, and have accounted for much of the increase in bank business credit growth so far this year (Graph 39). In addition, domestic banks are facing increased competition for lending opportunities from banks located offshore, with cross-border lending to Australian businesses increasing by nearly 30 per cent over the past year.

These competitive pressures are evident in narrower margins on business lending, with the spread between the weighted-average variable interest rate on small and large business loans having fallen by

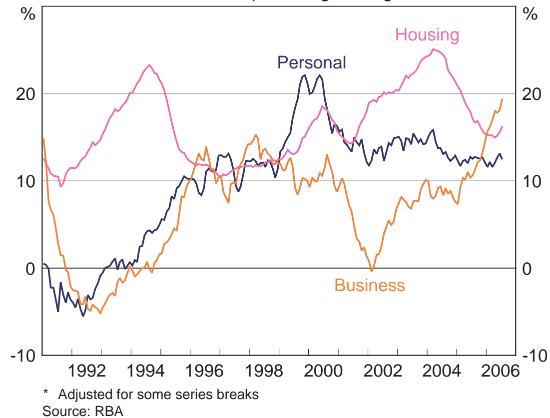
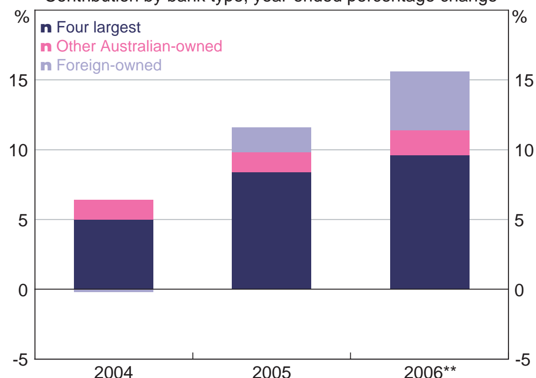
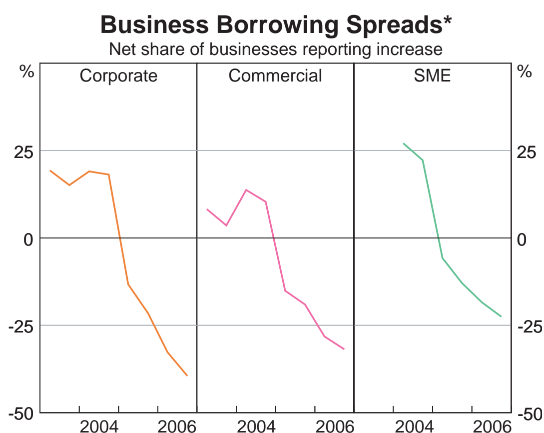


Table 9: Banks' Business Lending
June 2006, by loan size

Loan size	Level	Share of total	Year-ended growth
$	$b	Per cent	Per cent
<100k	24.1	5.5	-1.3
100k – 500k	70.1	16.0	5.7
500k – 2m	76.5	17.4	13.2
> 2m	268.7	61.1	24.6

Source: APRA





17 and 15 basis points, respectively, over the year to June 2006. It is also evident in the latest survey of business lending conditions by JPMorgan and East & Partners, which reported that the number of businesses that recently experienced a fall in the margins they are charged by lenders considerably exceeded the number that experienced an increase (Graph 40).

One factor driving the compression of margins, particularly on loans to smaller firms, is a shift into lower-margin products, including loans backed by residential property. Another is the increasing share of business loans that are originated through brokers. Though precise data are unavailable, some observers have estimated that up to one quarter of small- to medium-sized borrowers are now accessing finance through this channel. As in the housing loan market, brokers often act as a conduit for competition by facilitating the capacity for borrowers to 'shop around' for a better deal.

Banks have responded to this environment in a number of ways, including by bolstering the number of business banking staff. Some banks are also seeking to speed up their processing of business loans, including by making greater use of automated approval techniques for certain types of borrowers.

Overall, robust competition and the associated changes in lending standards have resulted in borrowers having wider, and cheaper, access to finance than in the past. This is a welcome development from an efficiency perspective, provided that the compensation that lenders receive is commensurate with the risks they are taking on. An important issue in this regard is that many of the changes in pricing, lending standards and risk management have occurred against a favourable macroeconomic backdrop and are yet to be tested in more difficult times.

Credit Risk and Capital Adequacy

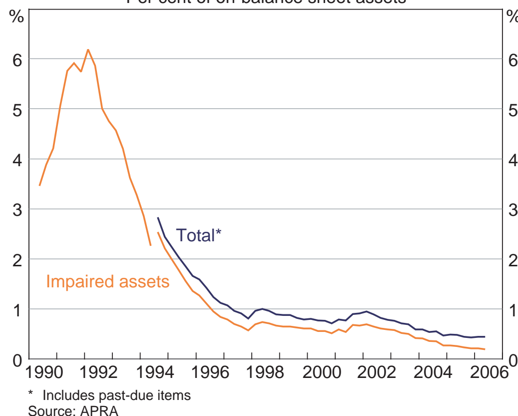
Credit Risk

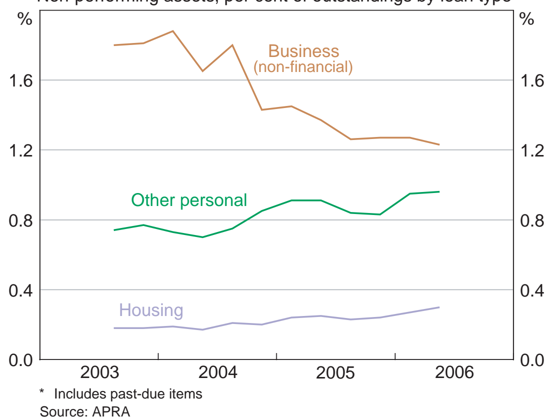
In aggregate, Australian banks' non-performing assets remain very low both by historical and international standards, an outcome that largely reflects the ongoing expansion of the domestic economy. As at June 2006, only 0.4 per cent of on-balance sheet assets were classified as non-performing (Graph 41). Of these non-performing assets, just under half were classified as 'impaired' – that is, assets on which payments were in arrears by more than 90 days or otherwise doubtful and the amount due was not well covered by the value of collateral. The remainder of these assets were in arrears, but were well covered by collateral.

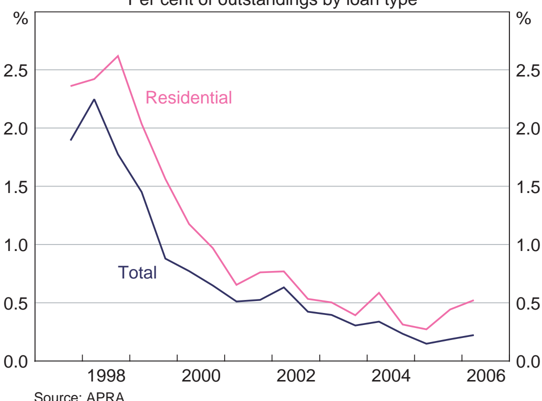
While the aggregate arrears rate has been broadly unchanged over the past year, there have been divergent trends in the various segments of banks' loan portfolios. In particular, the arrears rate on business loans has continued to decline, while that on residential mortgages has increased (Graph 42).

As at June 2006, the arrears rate on business loans stood at 1.2 per cent, down from 1.4 per cent a year ago and 1.8 per cent three years ago. When bill financing is included, the current business arrears rate is lower still, at around 0.9 per cent. Within the commercial property loan portfolio, the arrears rate as at March 2006 was a low 0.2 per cent, while that on commercial lending for residential construction and investment was 0.5 per cent (Graph 43). While this latter figure has recently picked up slightly, it too remains low in absolute terms. These outcomes are consistent with the sound position of the business sector's aggregate balance sheet as described in *The Macroeconomic and Financial Environment* chapter.

In contrast to movements in business loan arrears, the arrears rate on banks' housing loans has edged up, although in absolute terms, and relative to historical experience, it remains low. Over the past two years, the share of housing loans on banks' balance sheets on which payments are past due by at least 90 days has increased by 0.13 of a percentage point, to stand at 0.3 per cent as at June 2006 (Graph 44). This higher arrears rate has not, however,



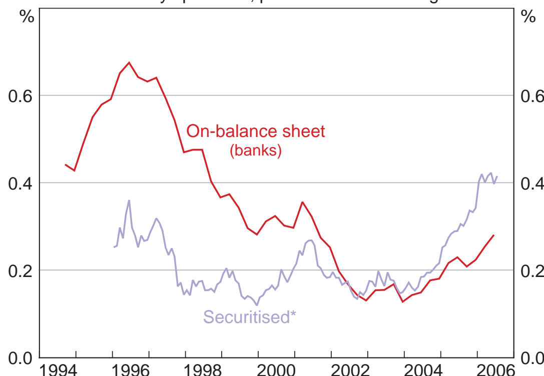




Graph 44

Housing Loan Arrears

90+ days past due, per cent of outstandings



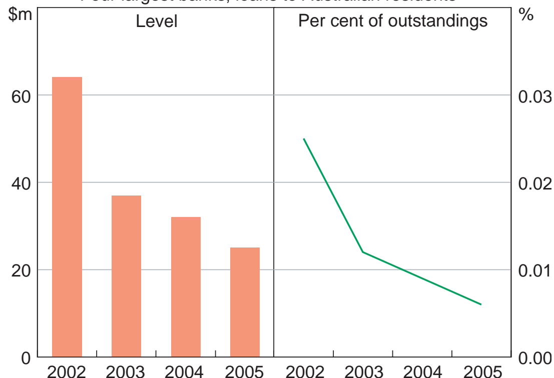
* Prime loans securitised by all intermediaries

Sources: APRA; Standard & Poor's

Graph 45

Real Estate Write-offs*

Four largest banks, loans to Australian residents**



* Net of recoveries

** Includes some commerical write-offs

Sources: Banks' annual reports

translated into increased provisioning costs for banks. In addition, net write-offs on loans secured by real estate have fallen in both dollar terms and as a share of outstanding loans over the past few years for the four largest banks (Graph 45). In part, this very benign experience reflects the fact that, for many of their housing loans, banks can claim against their mortgage insurers for losses arising from foreclosures on defaulting borrowers.

The arrears rate on housing loans that have been securitised – by both banks and non-bank lenders – has also risen, with the increase being more pronounced than for loans on banks' balance sheets. As at July 2006, around 0.4 per cent of outstanding securitised loans were in arrears, up 0.23 of a percentage point on the level two years ago. This more pronounced increase is partly explained by a higher share of low-doc loans in the pool of securitised mortgages. The arrears rate on these loans has increased more markedly than that on full-doc loans, with 0.85 per cent of securitised low-doc loans in arrears (by at least 90 days) as at July 2006, compared to 0.35 per cent of full-doc loans. Another segment of the home loan market that has tended to have a higher arrears rate is interest-only loans, which have become more popular in recent years (see Box B).

As discussed in *The Macroeconomic and Financial Environment* chapter, the increase in housing loan arrears is not unexpected, given the structural changes in the housing loan market over recent years. These changes have seen credit become more freely available and, as a result, the average level of arrears is likely to be higher in the future than it has been over the past decade or so.

Australian-owned banks are also exposed to credit risk through their overseas operations, with foreign exposures increasing by around 11½ per cent over the past six months, to stand at $408 billion – equivalent to 28 per cent of total assets – as at June 2006 (Table 10). Over 90 per cent of the overseas claims of Australian-owned banks are on developed countries, and are concentrated in New Zealand and the United Kingdom. Exposures to these two countries

Table 10: Australian-owned Banks' Foreign Exposures
June 2006, ultimate risk basis

	Total		of which:	
	Level	Share	Cross-border	Local
	$b	Per cent	$b	$b
New Zealand	172.8	42.3	4.2	168.6
United Kingdom	100.1	24.5	21.3	78.8
United States	45.4	11.1	24.1	21.3
Other developed countries	59.0	14.4	53.8	5.1
Developing countries	18.3	4.5	11.4	7.0
Offshore centres[(a)]	12.3	3.0	7.6	4.7
Other	0.4	0.1	0.3	0.1
Total	**408.2**	**100.0**	**122.7**	**285.6**
Memo: Per cent of total assets	*28.3*		*8.5*	*19.8*

(a) Includes Hong Kong and Singapore
Source: APRA

are primarily the result of lending by branches and subsidiaries located there, rather than cross-border loans from Australian-based operations. As noted in the previous Review, the types of competitive pressures evident in Australia have also been a feature of the financial landscape in New Zealand and the United Kingdom.[1] According to securitisation data, as in Australia, housing loan arrears have picked up in both these countries.

Capital Adequacy

Australian deposit-taking institutions are well capitalised, with capital ratios that remain above regulatory minima. The aggregate regulatory capital ratio for the banking system was largely unchanged over the past six months, standing at 10½ per cent as at June 2006 (Graph 46). In contrast, the aggregate capital ratio for the credit union sector has steadily increased over recent years to over 16 per cent, while the aggregate ratio for the building society sector has declined marginally to around 14 per cent.

For banks, the highest-quality (Tier 1) capital was equivalent to just under 8 per cent of risk-weighted assets as at June 2006. This figure has been relatively constant over recent years, with retained earnings growing broadly in line with growth in risk-weighted assets. There has, however, been an increase in the share of innovative capital instruments such as hybrid securities – which have characteristics of both debt and equity – in Tier 1 capital. In the late 1990s, these instruments accounted for around 3 per cent of Tier 1 capital; today the figure is around 11 per cent (Graph 47). The Tier 2 capital ratio has also been relatively constant over recent years at around 3.6 per cent, with an increasing proportion accounted for by term subordinated debt.

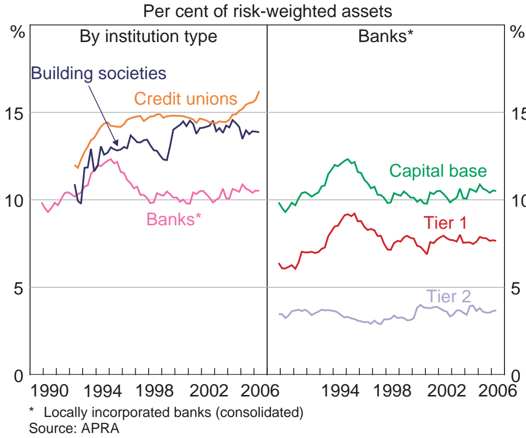
Going forward, changes to APRA's prudential standards are likely to influence the composition of banks' regulatory capital. In particular, from 2008, innovative capital instruments will be restricted to 15 per cent of net Tier 1 capital (i.e. after Tier 1 deductions), down from the current

1 *See Reserve Bank of Australia (2006), 'Box B: Competition in Household Lending in New Zealand and the United Kingdom',* Financial Stability Review, *March.*

Graph 46

Capital Ratios

Per cent of risk-weighted assets

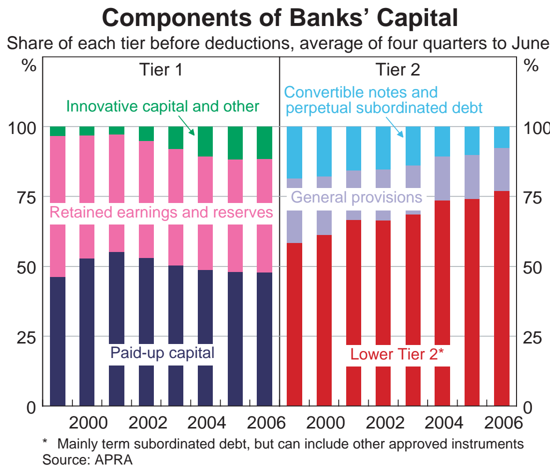


* Locally incorporated banks (consolidated)
Source: APRA

Graph 47

Components of Banks' Capital

Share of each tier before deductions, average of four quarters to June



* Mainly term subordinated debt, but can include other approved instruments
Source: APRA

limit of 20 per cent of gross Tier 1 capital (a limit that is equivalent to about 26 per cent of net Tier 1). In aggregate, banks' current use of such instruments is within this new limit, though some banks are likely to be materially affected by the changes. For these banks, an additional two-year transition period may be available.

Market Risk

Australian banks have traditionally had only small unhedged positions in financial markets. This is illustrated by the fact that the value-at-risk (VaR) – which measures the potential loss, at a given confidence level, over a specified time horizon – for the four largest banks was equivalent to 0.03 per cent of shareholders' funds in the latest half year (Table 11).

Consistent with this low exposure to market risk, Australian banks do not rely heavily on trading income for profitability. This form of income, in aggregate, accounted for around 5 per cent of total operating income of the five largest Australian banks

Table 11: Traded Market Risk

Four largest banks, annual average value-at-risk, per cent of shareholders' funds[(a)]

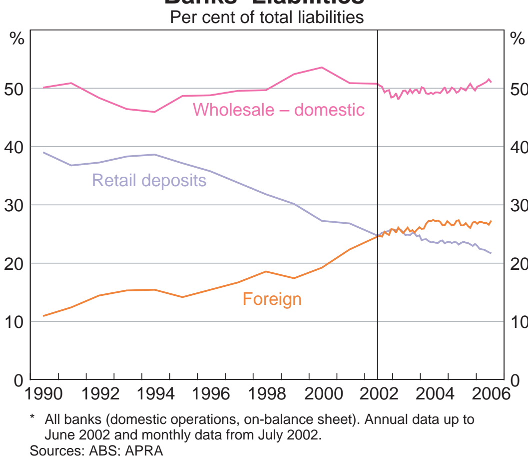
	2004	2005	2006 [(b)]
Interest rate	0.02	0.02	0.01
Foreign exchange	0.01	0.01	0.01
Other[(c)]	0.02	0.01	0.03
Diversification benefit	-0.01	-0.01	-0.01
Total	**0.04**	**0.04**	**0.03**

(a) Value-at-risk is calculated using a 99 per cent confidence interval and one-day holding period.
(b) Data for 2006 are for the latest half year and do not include National Australia Bank.
(c) Other market risks include commodity, equity, prepayment, volatility and credit-spread risk.
Sources: Banks' annual and interim reports

in the latest half year, a share that has been stable over the past decade (Graph 48). In comparison, some of the large globally active banks derive as much as one third of their income from trading activities.

Funding and Liquidity

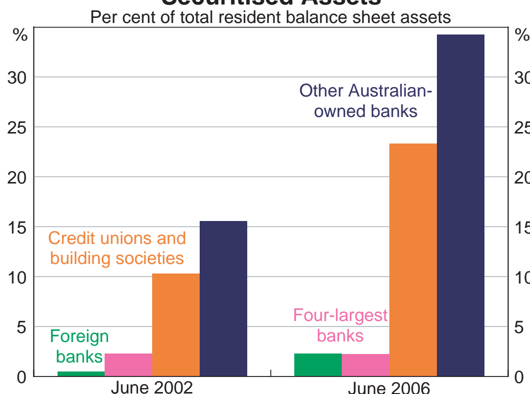
Bank credit growth has consistently outstripped growth in bank deposits for more than a decade. In large part, this reflects the fact that the household sector's strong demand for credit over the period has coincided with a decline in the share of household savings placed on deposit with banks. As a result, banks now source less than one quarter of their funding from retail deposits, compared to nearly 40 per cent in the mid 1990s (Graph 49).



At the same time, banks are competing more intensely and, hence, are having to pay more for traditionally low-cost retail deposits. In particular, many financial institutions are now offering the high-yield online savings accounts first introduced by some foreign-owned banks, beginning in the late 1990s. The average interest rate on these accounts is 5.8 per cent, only slightly below the current cash rate of 6 per cent. While these online accounts have added to the downward pressure on banks' net interest margins, they have also increased the attractiveness of bank deposits as a financial asset for the household sector. Bank deposits are currently growing at an annual rate of around 10 per cent, compared to rates of around 5 per cent per year over much of the 1990s. The higher return on these accounts may be one reason why survey evidence from Westpac and the Melbourne Institute shows that the proportion of households who view bank deposits as 'the wisest place for savings' has increased from around 10 per cent at the end of the 1990s to 21 per cent as at September 2006, though this share remains well below previous peaks.

Banks have used a variety of approaches to bridge the gap between retail deposit growth and lending growth. Some regional banks – as well as building societies and, to a lesser extent, credit unions – have made extensive use of securitisation markets over recent years. As a result, the

ratio of securitised assets to on-balance sheet assets for Australian-owned banks, excluding the four largest banks, increased to 34 per cent as at June 2006, compared to 16 per cent four years earlier (Graph 50). In aggregate, however, the most notable change since the 1990s has been an increased reliance on foreign funding; foreign liabilities accounted for 27 per cent of total liabilities (on a domestic books basis) as at July 2006, up from 15 per cent 10 years ago.



Of these foreign liabilities, around 70 per cent are in the form of negotiable debt securities, primarily reflecting the issuance of offshore bonds and commercial paper by large banks (Table 12). A further 12 per cent are in the form of deposits from non-residents, while much of the remainder is accounted for by intra-group transfers. Foreign bank branches operating in Australia tend to make relatively more use of such transfers.

Table 12: Banks' Foreign Liabilities
June 2006

	Level $b	Share of total Per cent
Debt securities	272.5	68.9
Intra-group transfers	64.2	16.2
Deposits	49.2	12.5
Other	9.5	2.4
Total	**395.5**	**100.0**

Source: APRA

The majority of debt securities have been issued into the US and UK markets, though the locations of the ultimate holders of these securities are likely to be more disparate than these figures suggest (Table 13). Over 90 per cent of offshore debt securities have been issued in foreign currencies, with the US dollar the largest individual currency of denomination. The preponderance of foreign-currency denominated debt has not, however, exposed the banking

Table 13: Banks' Offshore Debt Securities
June 2006, per cent of total outstanding

Market of issue	Currency					Total
	AUD	USD	EUR	GBP	Other	
United Kingdom	5.1	20.5	21.6	11.5	11.7	70.5
United States	0.0	10.4	0.5	0.0	0.0	10.9
Hong Kong	0.5	4.3	0.3	1.1	2.8	8.9
Japan	0.4	0.2	0.4	0.0	1.3	2.4
Other	1.3	2.1	0.8	0.5	2.7	7.3
Total	**7.3**	**37.6**	**23.5**	**13.1**	**18.5**	**100.0**

Source: APRA

system to significant foreign-currency risk, with most of this risk fully hedged, or offset by foreign equity holdings.

Banks manage their liquidity risks, in part, through holding liquid assets. Over the past few years, the ratio of highly liquid assets – mainly government and bank-issued securities – to total assets has remained stable, at around 11 per cent (Graph 51). The proportion of these assets that can be used in repurchase agreements with the Reserve Bank has also been broadly steady since the eligibility criteria were expanded in March 2004. APRA's prudential guidelines require certain banks to use a scenario-based approach to show that they would be able to meet their payments for five days under adverse conditions.

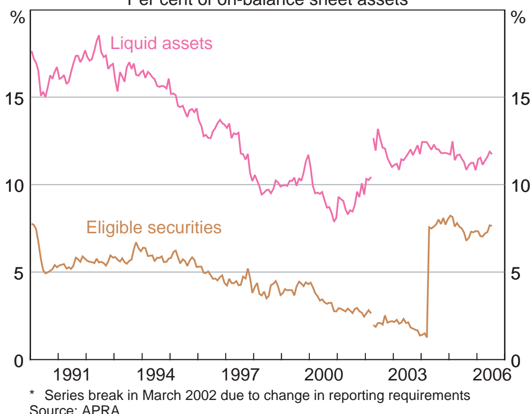
Financial Markets' Assessment

Since the previous Review, the bank share price index has tended to move in line with the broader market, to be around the same level as in March 2006 (Graph 52). As in financial markets more generally, market-based indicators of banking sector performance have been more volatile over the past six months than has been the case in recent years. Expectations of future volatility of banks' share prices, implied from options price data, rose somewhat between May and July, but subsequently returned to around the low levels of six months ago (Graph 53).

Market-based indicators of bank credit risk have also edged up over the past six months, although they

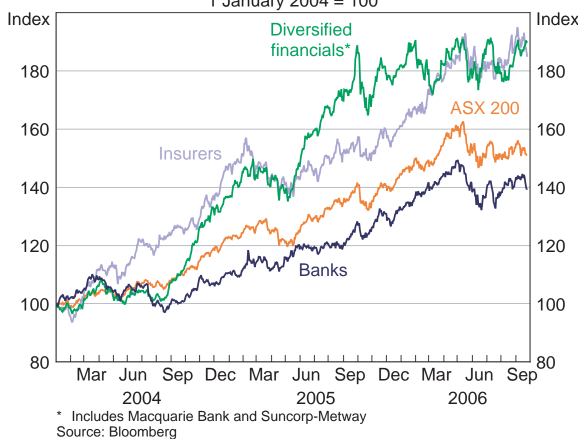
Graph 51

Banks' Eligible Securities and Liquid Assets*



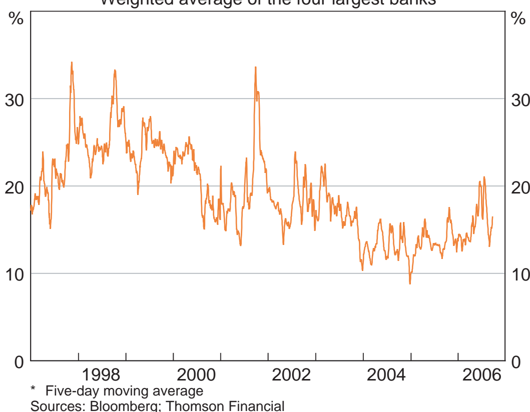
Graph 52

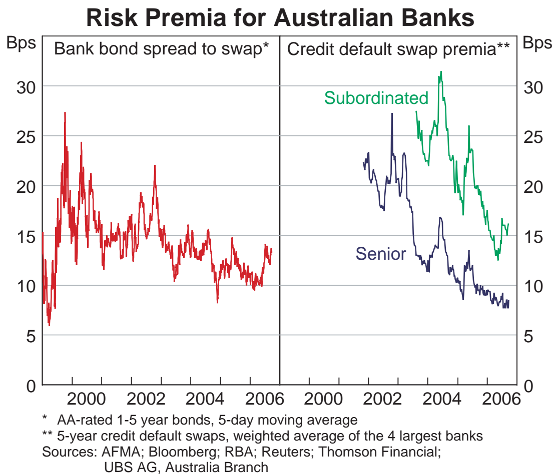
Financial Sector Share Prices



Graph 53

Implied Volatility of Banks' Share Prices*





remain low. The spread between bank bond yields and swap rates has increased marginally over this period, though it remains low by the standards of recent years (Graph 54). There has been a similar modest rise in the premia on credit default swaps over subordinated debt. In contrast, credit default swap premia on banks' senior debt continued to drift downwards.

Rating agencies also continue to view the banking sector favourably, with Standard & Poor's, for example, maintaining a 'AA-' rating for each of the four largest banks. In addition, in the past six months, the long-term rating of BankWest was raised one notch by Standard & Poor's, to AA-, while HSBC Bank Australia was upgraded a notch by both Moody's and Standard & Poor's. Moody's also upgraded St George Bank's long-term rating to A1 (Table 14).

Table 14: Long-term Ratings of Australian Banks
As at 25 September 2006

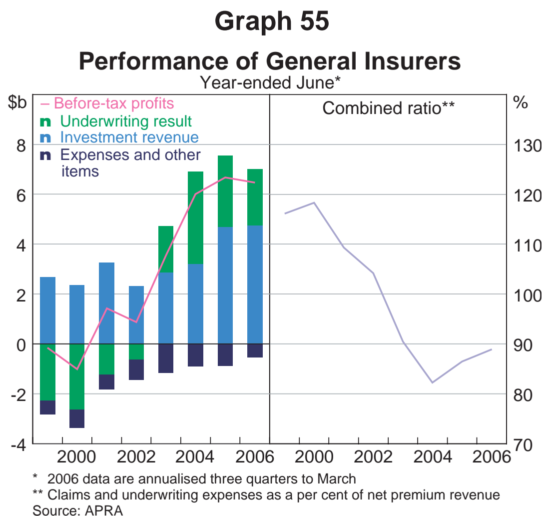
	Standard & Poor's	Moody's	Fitch
Adelaide Bank	BBB+	Baa2	–
AMP Bank	A-	A3	–
ANZ Banking Group	AA-	Aa3	AA-
Arab Bank Australia	–	Baa2	A-
Bank of Queensland	BBB+	Baa2	BBB
BankWest	AA-	A1	–
Bendigo Bank	BBB+	–	BBB+
Commonwealth Bank of Australia	AA-	Aa3	AA
HSBC Bank Australia	AA	Aa3	–
ING Bank (Australia)	AA	Aa2	–
Macquarie Bank	A	A2	A+
National Australia Bank	AA-	Aa3	AA
St George Bank	A+	A1	A+
Suncorp-Metway	A	A2	A
Westpac Banking Corporation	AA-	Aa3	AA-

Sources: Fitch; Moody's; Standard & Poor's

2.2 General Insurance

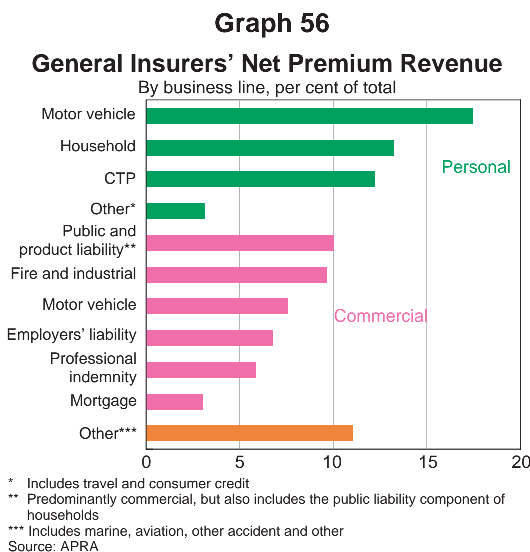
The general insurance sector has, in aggregate, been very profitable in recent years. According to APRA data, the annualised before-tax profit of general insurers was $6.5 billion in the first three quarters of 2005/06, with return on equity equal to 25.8 per cent (Graph 55). While the aggregate return on equity was around 2 percentage points lower than in the previous financial

year, it remained above the average return recorded over the past five years of just over 21 per cent.



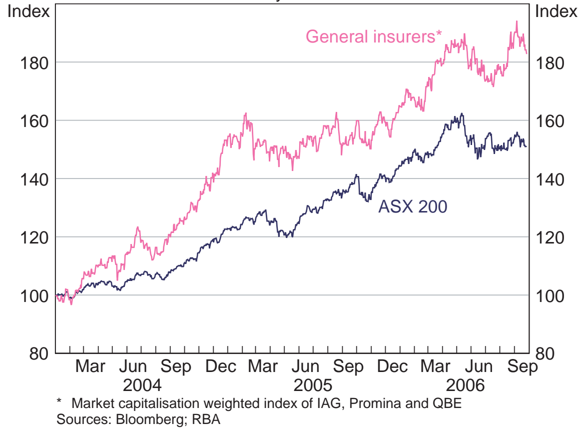
Investment revenue accounted for nearly three quarters of aggregate before-tax profit, with general insurers benefiting from the strong gains in equity markets over the period (equities account for 34 per cent of general insurers' financial assets). The industry is also enjoying a relatively favourable claims environment. While the combined ratio – claims and underwriting expenses as a ratio to net premium revenue – has risen to around 90 per cent, it remains low by the standards of recent years. Cyclone Larry, which hit north Queensland in March, does not appear to have had a significant effect on general insurers' profits – insured losses from the cyclone are estimated at around $425 million, which is well within the provisions that insurers hold for such claims.

Like other parts of the financial sector, competitive pressures are having an impact on the general insurance industry and are likely to add to downward pressure on premiums going forward. Recently, premiums have come under the most pressure in some commercial business lines, including public and product liability and professional indemnity insurance. In public and product liability insurance, for example, APRA estimates that premiums fell by around 13 per cent in 2005. In personal insurance lines – where general insurers earn roughly half of their premium revenue – growth in net premium revenue was slower than the growth in net claims in 2005 (Graph 56). Moreover, premium rates have reportedly fallen in some personal insurance lines, including compulsory third-party motor vehicle insurance.



Domestic general insurers, in aggregate, have also continued to build up their capital buffers, with direct insurers holding nearly 2½ times the regulatory minimum level of capital as at December 2005, compared to 2.2 times a year earlier.

Rating agencies have maintained their positive view of the general insurance industry in Australia, with each of the five largest insurers –



which together account for just over 40 per cent of industry assets – rated 'A' or higher by Standard & Poor's. In the past six months, Standard & Poor's upgraded the second largest insurer, Allianz Australia, from A to A+, while Fitch Ratings revised QBE's outlook from stable to positive. General insurers' share prices have marginally outperformed the broader market over the past six months and are slightly higher than in March (Graph 57).

Most domestic insurers use reinsurance to offset some of their risks, with around 20 per cent of gross claims in 2005 recovered through reinsurance. This cover is typically provided by the subsidiaries of a small number of large global reinsurers which have faced mounting weather-related losses in recent years – insured natural catastrophe losses in 2005 were estimated at a record of around US$80 billion, of which around half was expected to be covered by the reinsurance industry. While there is evidence that the reinsurance industry is seeking to recoup some of these losses through higher premiums, it appears that premium increases have largely been confined to the regions and business lines most affected by natural catastrophes. Despite the more difficult conditions, the largest global reinsurers have maintained their relatively high ratings, and Standard & Poor's has recently reaffirmed its stable outlook for the reinsurance industry. This is consistent with the strong profit results recorded by some of the large reinsurers in the recent half year.

2.3 Wealth Management

The wealth management sector continues to record rapid growth, with total (consolidated) assets under management increasing by around 18 per cent over the year to June 2006, to stand at just over $1 trillion (Table 15). Superannuation funds account for 53 per cent of funds under management and, as for much of the past few years, recorded the strongest growth over the recent period.

Table 15: Assets under Management
June 2006, consolidated

	Level $b	Share of total Per cent	Year-ended growth Per cent
Superannuation funds	544.7	53.0	22.4
Life insurers	203.7	19.8	6.5
Other managed funds	279.1	27.2	19.7
Total	**1 027.5**	**100.0**	**18.2**

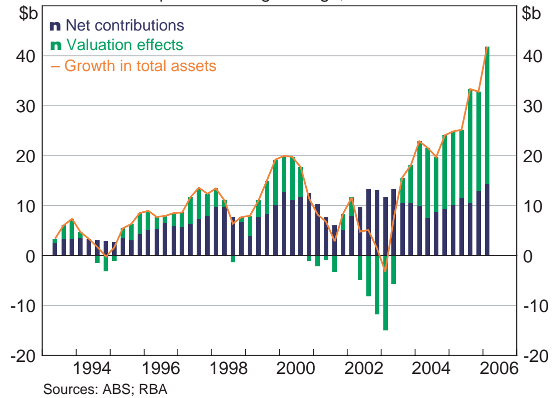
Source: ABS

Superannuation Funds

Superannuation funds' (consolidated) assets increased by 22.4 per cent over the year to June 2006, to stand at $545 billion. While the majority of recent growth has come from buoyant investment returns, net contributions have also been strong, averaging $14.3 billion per quarter over the year to March 2006 – the highest on record (Graph 58). By fund type, industry and self-managed funds have recorded the strongest growth in assets under management over recent years. These funds, together, account for nearly 40 per cent of industry assets, compared to around 23 per cent five years ago (Graph 59). At the same time, there has been a decline in the share of total superannuation assets held in public sector and corporate funds.

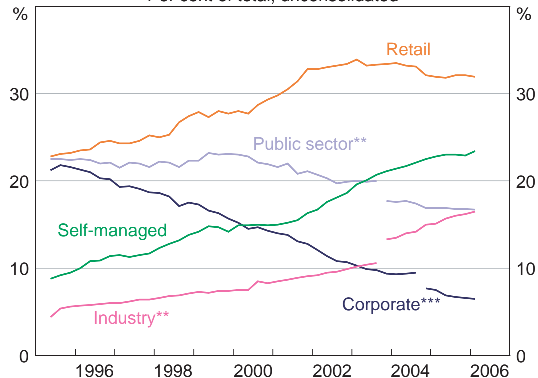
Graph 58

Growth in Assets of Superannuation Funds



Graph 59

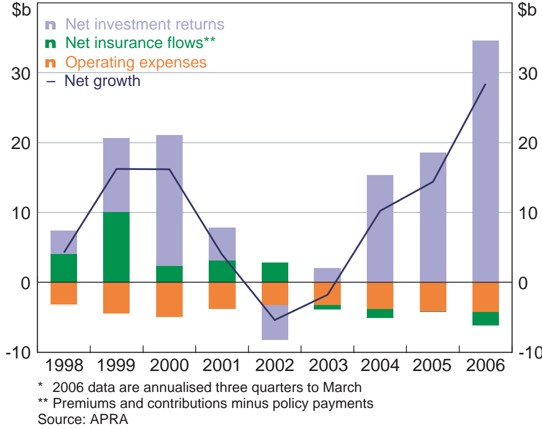
Superannuation Assets by Sector*

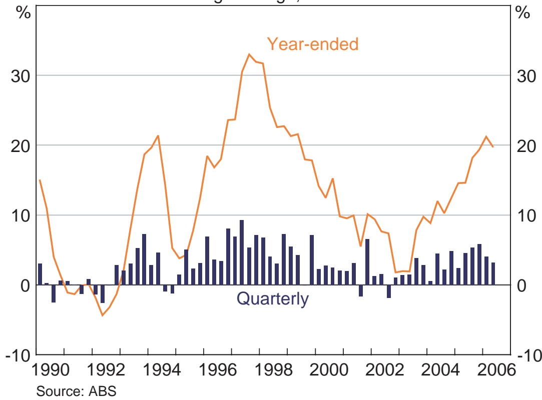


A recent influence on the superannuation industry is the new licensing regime, under which all trustees operating after 1 July 2006 are required to be licensed by APRA. The transition to this regime appears to have accelerated the trend towards consolidation within the superannuation industry that has been under way for a number of years. The number of APRA-regulated superannuation funds fell from 12 285 in 2001 to 8 732 in 2005, a decline of nearly 30 per cent.

Life Insurance

Life insurers performed well in the latest financial year, with industry assets growing by $28 billion (on an annualised basis) in 2005/06, nearly double the increase in the previous financial year (Graph 60). As in the previous two years, this outcome was solely due to higher investment returns, with policy payments again outstripping premiums and contributions. With over half of their total assets invested in domestic equities, life insurers have benefited from the strong share market gains in recent years. An ongoing challenge for the life insurance industry is





that households are shifting relatively more of their retirement savings into superannuation funds, away from life insurers; life offices currently manage around 22 per cent of total superannuation assets, down from 36 per cent a decade ago.

Other Managed Funds

The combined (consolidated) assets of other managed funds – including public unit trusts, friendly societies, common funds and cash management trusts – increased by nearly 20 per cent over the year to June 2006, to $279 billion, continuing the run of strong gains over the past few years (Graph 61). By fund type, assets held in public unit trusts contributed the vast bulk of growth in aggregate assets of other managed funds, mainly reflecting the strong performance of share markets and rising commercial property prices; 57 per cent of public unit trusts' total assets are held in equities and a further 28 per cent are held in property.

Box A: International Financial Reporting Standards

Australian banks, and other financial institutions, have recently begun reporting their financial statements in accordance with the Australian equivalents to International Financial Reporting Standards (IFRS). The cornerstone of IFRS is an emphasis on the use of 'fair value' – broadly speaking the use of market values net of transaction costs – for measuring most assets and liabilities, particularly financial instruments.[1] It is generally acknowledged that the introduction of IFRS will help promote more transparent financial statements by better aligning accounting information with economic reality, and also enhance the consistency of financial reporting across countries. The implementation of new accounting standards is, nonetheless, raising some challenging issues for financial analysts and regulators. In particular, the one-off change in the accounting regime is complicating the task of comparing financial indicators drawn from the latest accounts with those of previous years. Moreover, looking forward, there is likely to be more volatility in the financial accounts due to the more widespread use of fair value accounting.

Two of the key indicators that are materially affected by the change to IFRS are the return on equity and the provisions held against credit losses.

The published return on equity for the banking sector has increased significantly under IFRS, reflecting a marked decline in measured shareholders' funds. For the five largest banks, the move to IFRS has seen aggregate shareholders' funds fall from $102 billion to $81 billion (Table A1). This decline is attributable to three main factors, although the relative importance of these factors varies considerably across banks.

Table A1: Change in Shareholders' Equity
Five largest banks, September 2005 [(a)]

	AGAAP	IFRS [(b)]	Change
	$m	$m	$m
Contributed equity	49 422	42 314	-7 108
Retained earnings	38 370	34 107	-4 263
Reserves	5 340	2 321	-3 019
Shareholders' equity attributable to members of the bank	93 132	78 742	-14 390
Minority and outside equity interests	9 241	1 836	-7 405
Total shareholders' equity	**102 373**	**80 578**	**-21 795**

(a) CBA data are as at June 2005
(b) IFRS figures are as at 1 October 2005 for ANZ, NAB, St George and WBC and as at 1 July 2005 for CBA
Sources: Banks' annual and interim reports

1 *For a previous discussion of this issue, see the Developments in the Financial Infrastructure chapter of the September 2004* Financial Stability Review.

The first is that hybrid securities – which have characteristics of both debt and equity – that are settled at maturity for a variable number of a bank's shares are now classified as liabilities, rather than equity. This change, along with other changes in the definition of hybrid securities, reduced measured contributed equity of the five largest banks by around $6 billion.

The second is that banks with life insurance subsidiaries can no longer recognise the excess of the market value over the net assets of the entities controlled by those subsidiaries (commonly referred to as EMVONA) as shareholders' funds. This change resulted in a $4½ billion fall in aggregate equity of the five largest banks, with this spread across retained earnings and reserves, owing to differing initial treatment of EMVONA across banks.

The third is that minority interests in banks' controlled wealth management entities were reclassified as liabilities rather than equity, leading to an aggregate fall of nearly $7½ billion in shareholders' funds.

The introduction of IFRS also saw a significant change in the provisions that banks hold against credit losses. Under the previous accounting standards (AGAAP), banks held general provisions to cover losses at a portfolio level that were incurred but not yet reported, as well as to cover losses arising from expected future events. The main change under IFRS is that accounting measures of general – now termed 'collective' – provisions are more narrowly defined and may not take into account expected losses arising from future events. Based on the latest published accounts of the five largest banks, it is estimated that this change resulted in reported general/collective provisions falling by around 20 per cent (Table A2). Going forward, this decline may be partly offset by a new regulatory requirement for a 'General Reserve for Credit Losses' (see below).

Table A2: Change in Provisions

Five largest banks, September 2005 [(a)]

	AGAAP	IFRS [(b)]	Change
	$m	$m	$m
General/Collective provisions	7 370	5 863	-1 507
Specific/Individual provisions	1 056	977	-79

(a) CBA data are as at June 2005

(b) IFRS estimates are as at 1 October 2005 for ANZ, NAB, St George and WBC and as at 1 July 2005 for CBA

Sources: Banks' annual and interim reports

From a regulatory perspective, the Australian Prudential Regulation Authority (APRA) has generally sought to align its prudential standards with the new accounting regime. APRA has, however, recognised that accounting rules may not always be consistent with prudential considerations and has chosen to de-couple prudential standards from IFRS in several areas.[2] One of these is the calculation of regulatory capital, where APRA will generally continue to

2 *See Australian Prudential Regulation Authority (2005), 'Response to Submissions: Adoption of International Financial Reporting Standards, Prudential Approach, 1. Fair Value and Other Issues' and Australian Prudential Regulation Authority (2006), 'Response to Submissions: Adoption of International Financial Reporting Standards, Prudential Approach, 2. Tier 1 Capital and Securitisation'.*

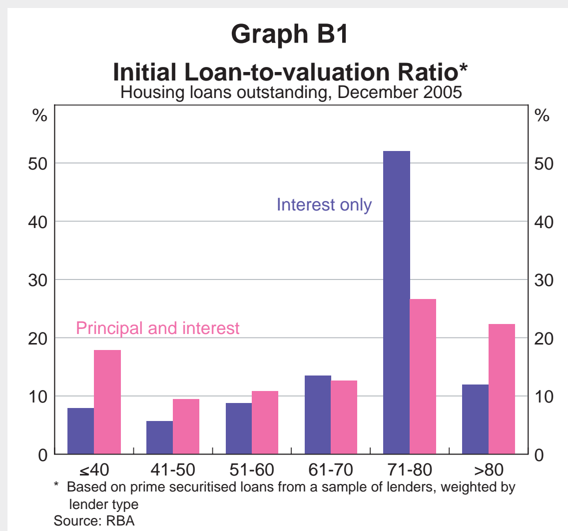
allow hybrid securities to qualify as regulatory capital. Notwithstanding this, regulatory capital at some institutions may be materially affected by the accounting changes and, in these cases, institutions are able to obtain approval for transitional arrangements from APRA until the end of 2007. APRA has also been mindful of the change in provisioning methodology noted above and has required all banks, and other authorised deposit-taking institutions, to report a new General Reserve for Credit Losses as part of their Tier 2 capital. This may include some portion of their IFRS collective provision as well as any additional amount necessary to reflect losses expected over the life of the portfolio. ✠

Box B: Interest-only Housing Loans

There has been a notable increase in the use of interest-only housing loans in recent years. With this type of loan, borrowers are not required to make any repayments of principal for up to 10–15 years, after which the loan typically converts to a principal-and-interest loan. The structure of these loans means that, for a given loan size and interest rate, servicing costs are initially lower than on a principal-and-interest loan. Conversely, for a given initial repayment amount, a larger loan can be serviced. Either way, when the interest-only period expires, required payments rise to above those on a standard loan.

The majority of interest-only housing loans are extended to investors, reflecting the tax-deductibility of interest payments on investor loans. Interest-only loans are, however, also becoming increasingly popular with owner-occupiers, partly as a result of being able to service a larger loan for a given initial repayment amount. Interest-only loans are, on average, larger than principal-and-interest loans for both owner-occupier and investor loans. Available evidence from various banks and securitisation data suggests that, in 2005, around 60 per cent of new investor housing loans and a little over 15 per cent of new owner-occupier loans were interest-only – the corresponding figures for 2003 were just under 50 per cent and a little over 10 per cent. Overall, this suggests that, in 2005, interest-only loans accounted for around 30 per cent of all new housing loans and a slightly lower share of loans outstanding.

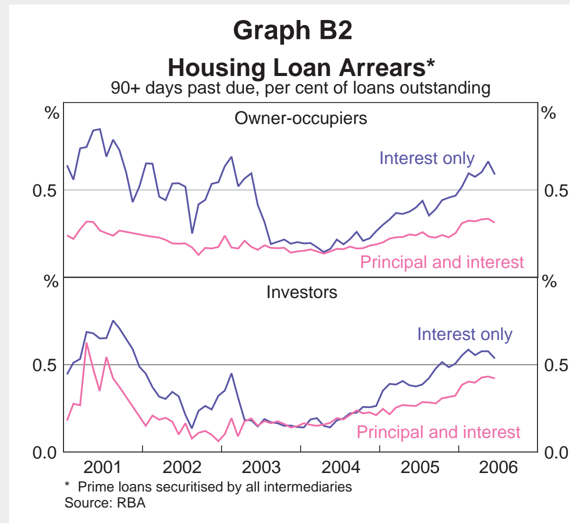
With a principal-and-interest loan, a borrower making scheduled repayments would typically pay off about 10 per cent of the loan's principal over the first five years, establishing a buffer against a fall in house prices. For interest-only loans, however, the absence of required principal repayments during the interest-only term means that, for a given loan-to-valuation ratio (LVR), any fall in the value of the property would be more likely to result in the borrower having negative equity than otherwise. Partly mitigating this risk is the fact that initial LVRs tend to be lower on interest-only loans than on principal-and-interest loans; the available evidence suggests that just over 10 per cent of interest-only loans outstanding at the end of 2005 had initial LVRs in excess of 80 per cent, compared with a little over 20 per cent of principal-and-interest loans (Graph B1). In addition, over the past few years, many borrowers



with interest-only loans have made some principal repayments during the interest-only term of their loans.[1]

In recent years, interest-only loans have been made available to a wider variety of borrowers, including low-doc and sub-prime borrowers. Available evidence suggests that low-doc borrowers accounted for around one quarter of prime interest-only loan approvals in 2005 compared to a little over 5 per cent of prime principal-and-interest loan approvals. Moreover, around one third of sub-prime loan approvals were interest-only in 2005.

According to securitisation data, the arrears rate on prime interest-only loans has been somewhat higher than on principal-and-interest loans for both owner-occupier and investor loans (Graph B2). Consistent with this, rating agencies assess that interest-only loans have a higher probability of default and lenders tend to charge a premium, of around 15 basis points, above the average actual rate paid by prime borrowers on principal-and-interest loans. ✠



1 *Principal repayments can be made without penalty on variable-rate loans, which are estimated to have accounted for around 90 per cent of interest-only loan approvals in 2005. For fixed-rate loans, the same prepayment penalty typically applies for principal-and-interest and interest-only loans.*

3. Developments in the Financial System Infrastructure

3.1 Crisis Management Arrangements

As discussed in the previous Review, the Council of Financial Regulators has recently been reviewing crisis management arrangements in the Australian financial system. As part of this review, the Council concluded that there is a strong case for the introduction of a scheme to provide depositors in a failed authorised deposit-taking institution (ADI) and policyholders in a failed insurer with timely access to at least some of their funds. While current legislation provides considerable protection to depositors and policyholders, it does not provide for timely payments to be made if an institution fails and closes its doors. Indeed, given the lengthy nature of a wind-up process, it could take many months before funds in a failed institution are made available for distribution. In the Council's view, this delay is likely to place considerable pressure on the Government to step in and provide protection beyond that set out in the legislation, particularly given the expectation by the public that the Government would behave in this way. While such actions might be in the interests of the depositors or policyholders of the failed institution, they have the potential to be costly to taxpayers and to weaken market discipline.

The Council's review was sent to the Treasurer in August 2005. It recommended that the Government consider the introduction of a limited facility to be operated by the Australian Prudential Regulation Authority (APRA) that would provide funds on a timely basis, with the facility being post-funded rather than pre-funded. Depositor preference would remain in place, with the scheme having the limited objective of providing access to deposits in a timely fashion and providing increased protection to policyholders.

The Treasurer subsequently asked the Council to consult with the finance and insurance industries regarding its proposal. This consultation has now been completed. As well as consulting on the original proposal, the Council sought views on a number of proposed changes to the scheme that addressed concerns raised by industry.

The industry associations representing ADIs expressed opposition to the introduction of any scheme along the lines proposed by the Council. While a number of associations recognised the limitations of the current system, they typically argued that the Council's proposed scheme would be unlikely to pass a cost-benefit test, particularly as it could make people less careful about where they placed their deposits (the 'moral hazard' argument). Some industry associations also argued that it was appropriate that the Government bear some of the costs of compensating depositors in a failed institution, given that, in their view, the failure would necessarily imply that APRA had not done its job properly. Concerns were also expressed that the scheme would advantage one type of ADI over another.

The Council has not been persuaded by these arguments. In particular, it does not accept the moral hazard argument, especially given the evidence from a recent Reserve Bank survey which

suggests that most Australians already believe that the Government would step in to ensure either full or partial repayment of their deposits. In the Council's view, it is the current system, rather than the one being proposed, that is more likely to be subject to moral hazard.

The Council also rejected unequivocally the idea that the failure of an ADI necessarily means that APRA has not done its job properly. The responsibility for the success or otherwise of a financial institution ultimately rests with the management of that institution.

One other concern expressed by industry during consultation was that levies on surviving institutions, in the event that an institution failed, could adversely affect the profitability and health of the surviving institutions. In response, the Council sought views on giving the scheme first claim over the assets of the failed ADI. This change, which was supported by the industry, would significantly reduce the chance that a levy would ever need to be imposed on surviving institutions. In the unlikely event that a levy had to be imposed, the Council is of the view that the scheme should have the flexibility to take into account a range of factors – including the implications for risk taking – in setting any levies.

The Council also sought views on reducing the cap on payments under the scheme from the $50 000 originally proposed to $20 000. Most industry associations supported the lower cap, particularly given that the primary objective of the scheme is to provide liquidity. This support, however, was not universal, with some associations concerned that a lower cap could adversely affect the competitive position of some institutions. On balance though, the Council favours this lower cap. It also favours, on the grounds of administrative simplicity, paying depositors the full amount up to the cap, rather than imposing a 'hair cut' of 10 per cent as was originally proposed.

The Council also considered an alternative scheme for providing liquidity to depositors suggested by the Australian Bankers' Association. Under this alternative scheme, a hair cut would be applied to all creditors of a failed institution, with the institution then being able to reopen on a limited basis to provide liquidity. The Council, however, assessed that such a scheme would face considerable practical difficulties, including likely requiring some form of government guarantee of the failed institution's liabilities once it reopened.

With respect to the protection of policyholders in a failed insurer, the insurance industry does not support the Council's proposal, although it recognises the case for the introduction of some sort of compensation arrangements. Its opposition to the proposal relates to the broader regulatory environment for insurance, and concerns on a range of regulatory matters that are outside the ambit of the Council's crisis management work. Notwithstanding these concerns, discussions with insurance industry representatives, such as the Insurance Council of Australia, have been useful in considering the possible design of a scheme for policyholders.

Following the consultation process, the Council remains strongly of the view that a scheme along the general lines of the one discussed above would represent a significant enhancement of Australia's crisis management arrangements. The proposed scheme has been designed to minimise regulatory burden, and in the Council's view would be likely to strengthen, not weaken, market discipline. The Council has recently provided the Treasurer with a summary of the consultation and suggested a number of changes to the scheme originally proposed.

3.2 The Financial Sector Assessment Program

The International Monetary Fund (IMF) recently concluded an assessment of Australia's financial system under the auspices of the Financial Sector Assessment Program (FSAP). A core element in this process was an evaluation of Australia's compliance with a number of internationally accepted standards and codes relating to banking, insurance, securities regulation and systemically important payments systems. The FSAP findings are expected to be released publicly in October following consideration by the IMF's Executive Board. The assessment is expected to confirm that Australia's financial system is in a sound condition and that, in almost all areas, regulatory practices are in accordance with the relevant international standards.

Another important part of the FSAP process was a stress-testing exercise of the banking system jointly undertaken by the IMF staff, the Australian authorities and the five largest Australian banks. The exercise consisted of two main parts: a macroeconomic stress test and a series of single-factor stress tests to gauge the sensitivity of bank profits to sharp movements in market interest rates. In addition, at the IMF's request, APRA undertook a partial update of its 2003 mortgage portfolio stress test.[2]

The approach used for the macroeconomic stress test was to specify a three-year macroeconomic scenario and then ask banks to assess how they expected to perform. The scenario, developed by the IMF in conjunction with the Reserve Bank, APRA and Treasury, focused on two potential risks previously identified by the IMF in its surveillance work. These were: a large fall in house prices contributing to a sizeable recession; and domestic banks having difficulty rolling over their foreign liabilities, resulting in higher funding costs and a significant depreciation of the exchange rate.

The scenario had the following key features:

- a 30 per cent fall in house prices, a 10 per cent fall in commercial (office) property prices and a 27 per cent fall in equity prices;
- a 37 per cent depreciation of the exchange rate, higher wholesale funding costs for banks and unchanged official interest rates;
- a short recession in which real GDP falls by 1 per cent in the first year, before recovering under the influence of the significantly lower exchange rate. The recession is driven by an unprecedented contraction in household consumption, which falls by 2½ per cent in the first year, is flat in the second year and recovers in the third; and
- an increase in the unemployment rate from around 5 per cent to around 9 per cent.

Movements in some of the key macroeconomic and financial variables are shown in Table 16.

The detailed scenario was provided to the banks in November 2005. An initial round of results was provided to the authorities in March 2006. Discussions were then held between the reporting banks, the Reserve Bank and the IMF, following which the banks submitted a second round of results in June.

---

2 *See Australian Prudential Regulation Authority (2003), 'Stress Testing Housing Loan Portfolios',* APRA Insight, *3rd Quarter.*

Table 16: Scenario Profiles for Key Macroeconomic Variables

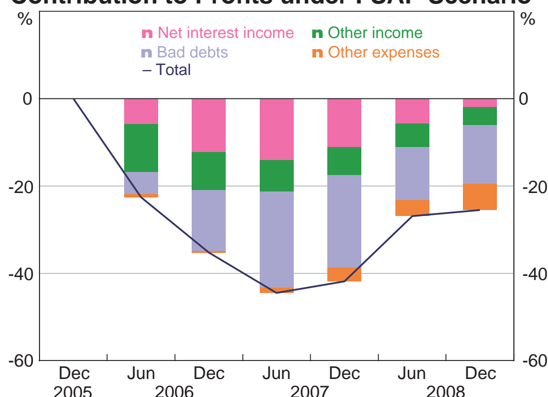
	Actual	Projections (year end)		
	2005	2006	2007	2008
Economic variables				
Real GDP[a]	2.9	-1.0	2.2	4.0
Consumption[a]	2.5	-2.6	0.1	2.1
Exports[a]	2.1	7.1	5.1	3.5
Imports[a]	6.7	-15.3	-6.1	4.0
Consumer price index[a]	2.8	5.0	3.3	2.5
Unemployment rate (per cent)[b]	5.1	7.1	9.0	8.7
Asset prices and financial variables				
House prices[a]	2.1	-30.0	0.0	2.5
Commercial property prices[a][c]	11.8	-10.0	0.0	0.0
3-year swap rate (per cent)[b]	5.6	8.0	7.3	6.8
10-year swap rate (per cent)[b]	5.7	8.2	7.4	6.9
10-year government bond yield (per cent)[b]	5.2	6.3	5.8	5.6
Corporate bond spreads (basis points)[b]	65	165	115	65
Bank bond spreads (basis points)[b]	50	250	150	50
Nominal TWI[a]	0.5	-36.5	9.7	7.3
Share market[a]	17.6	-27.0	8.0	10.0

(a) Year-ended percentage change
(b) 2005 observation is as at end December 2005
(c) Office property only
Source: RBA

In aggregate, the results showed a decline of around 40 per cent in the banks' profits after around 18 months, although there was considerable variation across banks (Graph 62). By the end of the three-year scenario, profitability had recovered somewhat, but remained around 25 per cent lower than in December 2005. The reduction in profits largely came from higher bad-debt expenses, although banks also reported lower net interest income due to higher funding costs. Those banks with large funds management operations also reported a decline in profits from asset management.

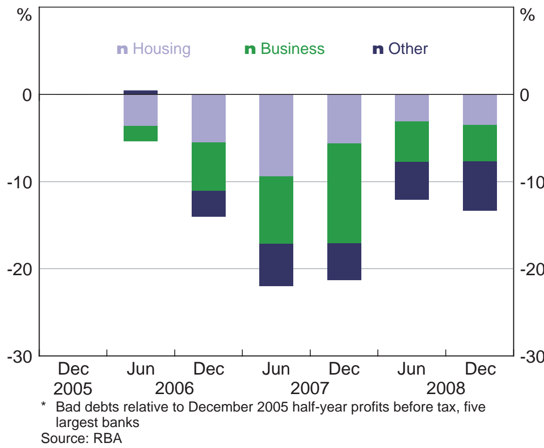
Graph 62

Contribution to Profits under FSAP Scenario*



* Profits before tax relative to December 2005 half-year profits, five largest banks
Source: RBA

The reported credit losses on housing loan portfolios were smaller than those on business loan portfolios despite a significant fall in house prices and a sharp increase in unemployment (Graph 63). The increase in credit losses primarily occurred not because households could not repay their housing loans, but because households cut back consumption, partly in the effort to



service their loans, causing problems for the business sector and thus for banks' business loan portfolios. In the banks' modelling, losses on housing loans were ameliorated by the ability of borrowers to draw on buffers built up through previous repayments being higher than those scheduled and also through the use of mortgage insurance. Moreover, the impact of the problems in the business sector on bank performance was not as severe as it might otherwise have been, owing to the current good shape of business balance sheets, and an improvement in the performance of export and import-competing industries due to the depreciation of the exchange rate.

While the exercise was useful, there are a couple of important caveats to the results. The first relates to the difficulties of interpreting aggregate outcomes when there are large differences in results across banks. While these differences may be partly explained by variations in the structure of individual bank balance sheets, they also reflect the very different approaches used by the banks to model their outcomes. Some banks took a very granular approach, modelling the impact of the scenario at individual business levels, while others took a highly aggregated top-down approach.

A second caveat relates to the design of the scenario, which involved a domestic recession but ongoing expansion of the global economy. All previous recessions in Australia have been associated with a global downturn, and incorporating a weaker world economy in the FSAP scenario would have made for a significantly more challenging environment for the banking sector. Another issue with the scenario was that banks were provided with the future path of all the key economic variables, eliminating the uncertainty that would face them in an actual downturn.

Despite these caveats, the exercise provided a vehicle for promoting a useful dialogue between the authorities and the banks regarding the measurement and management of risk. The exercise highlighted the importance of banks looking beyond historical experience in assessing the risk in their mortgage portfolios and the importance of taking into account the changing nature of the correlations between these portfolios and commercial loan portfolios.

The Council of Financial Regulators sees merit in repeating a macroeconomic stress test of the banking system on a regular basis and plans to conduct another exercise in around two years time.

In addition to the macroeconomic stress test, the IMF and the authorities also undertook a number of single-factor stress tests consisting of the following interest rate shocks:

- a 300 basis point proportional steepening of the yield curve out to three years;

- a 200 basis point upward shift in the yield curve; and
- a 100 basis point downward shift in the yield curve.

The impact of large changes in the volatility of interest rates was also considered. Of these various scenarios, it was only the introduction of a sharply steeper yield curve that had a noticeable impact on earnings. The relatively benign results from the single-factor stress tests reflect the fact that Australian banks run relatively small trading books with limited open positions.

Finally, APRA's partial update of its mortgage portfolio stress test suggested that authorised deposit-taking institutions (ADIs) would remain well capitalised in the event of a substantially weaker housing market.

3.3 The New Basel Capital Framework

Preparations are continuing for the implementation of the new capital adequacy regime for ADIs, known as the Basel II Framework and released by the Basel Committee on Banking Supervision. The new Framework is a major global initiative designed to harness the best practices in risk management for regulatory purposes and to provide for more risk-sensitive capital requirements. The Basel II Framework will be implemented in Australia from 1 January 2008 through APRA's prudential standards.

The vast majority of Australian banks, building societies and credit unions will use the more straightforward Basel II standardised approach to determine their regulatory capital charges. ADIs wishing to adopt the more sophisticated approaches for calculating their capital needs require approval from APRA to do so. If accredited, these ADIs will be able to use their own quantitative risk estimates as inputs to determine their regulatory capital requirements, rather than apply the supervisory rules of the standardised approaches.

APRA is currently considering the applications of a number of Australian-owned banks that wish to be accredited for the use of the more advanced approaches from January 2008. These banks account for a large share of banking sector assets. The accreditation process is a rigorous one, reflecting the importance that is attached to the role of capital in maintaining the financial strength of an ADI and in retaining public confidence. Accreditation of subsidiaries of foreign-owned banks will be co-ordinated by APRA with the regulator of the parent bank and will follow a different timetable.

Throughout the development of the Basel II Framework, one concern has been that the introduction of a new approach might lead to a reduction in the overall level of capital in the global banking system. Such an outcome would be counter to the original intentions of the reforms and would be unwelcome to individual regulators at the national level. Accordingly, the Basel Committee arranged periodic studies to assess the quantitative impact of the proposed reforms and to determine whether there might be a case to adjust the capital requirements proposed under the new Framework.

The results of the fifth and final Quantitative Impact Study (QIS 5), undertaken by 31 countries including Australia, were released in May. These confirmed that, at the aggregate level, the minimum required capital under Pillar 1 of Basel II would decline relative to that required under the existing Framework, though the outcomes varied significantly across banks

and countries. Interpretation of the outcomes and comparisons with previous studies have been complicated by changes in the global economy over time and, partly reflecting this, the Basel Committee has opted, for the time being, against further scaling up of the capital requirements under the more complex approaches. The results for Australian participants in QIS 5 indicated a larger fall in minimum regulatory capital levels under Pillar 1 than in many other countries. This is partly attributable to the higher proportion of housing loans on the books of Australian ADIs compared to their overseas peers and the relatively low credit losses on residential mortgages in Australia in the past. APRA is currently assessing the implications of the results for the implementation of the new Framework in Australia.

3.4 Prudential Approach to International Financial Reporting Standards

In May 2006, APRA released final prudential standards and guidance notes in response to the adoption of the International Financial Reporting Standards (IFRS) by ADIs. Although APRA has substantially aligned the prudential and reporting framework with that for IFRS-based financial reports, it has de-coupled some aspects. Two notable differences are that the definition of capital instruments eligible for Tier 1 capital will differ from Australian accounting standards, and that the calculation of provisions for credit losses will differ between accounting and regulatory frameworks (for further details see Box A in the *Financial Intermediaries* chapter of this Review). An additional area where accounting and regulatory requirements have been de-coupled is the treatment of securitised assets. APRA will continue to allow ADIs to hold securitised assets off-balance sheet, even in cases where they might have to be brought back onto the balance sheet for financial accounting purposes, provided that these securitised assets meet APRA's risk separation rules.

APRA's new reporting requirements came into effect from 1 July 2006 for banks and other ADIs, while similar changes came into effect from 31 December 2005 for life insurers. Changes for general insurers will be introduced from 1 January 2007, following a consultation period on APRA's general insurance 'Stage 2' reforms regarding capital, assets in Australia and custodial arrangements.

3.5 Managing Risks from Outsourcing

In March 2006, APRA issued draft prudential standards on minimum requirements for managing risks from the outsourcing of material business activities of ADIs, general insurers and life insurers. Outsourcing is defined as 'an agreement entered into by a regulated institution and another party to perform, on a continuing basis, a business activity which currently is, or could be, undertaken by the regulated institution itself'.[3] APRA has adopted a principles-based approach, with institutions able to formulate their own policies provided that they satisfy the relevant principles. Importantly, institutions remain ultimately responsible for any outsourced business activities. Although the standards are similar to those currently in effect for ADIs, they establish greater flexibility in the approach to intra-group outsourcing and specifically outline principles related to so-called 'offshoring' (the practice of outsourcing business activities

3 *See APRA (2006), 'Outsourcing',* Discussion Paper, *23 March*.

to service providers located outside of Australia). For any outsourcing arrangement – domestic or offshore – institutions are required to have arrangements in place that maintain business continuity in the event that service providers cannot fulfil their obligations.

3.6 Managing Conflicts of Interest

Since 1 January 2005, licensed financial services providers have been required under the *Corporations Act 2001* to have adequate arrangements in place to manage conflicts of interest (this is in addition to common law obligations to manage conflicts of interest). In April 2006, the Australian Securities and Investments Commission (ASIC) released a discussion paper that used several different case studies to suggest practical ways of managing conflicts of interest for financial advisers, licensees, research report providers, product issuers and fund managers. After consultation, the case studies are likely to be incorporated into ASIC's policy statement on managing conflicts of interest.

In April 2006, ASIC also released the results of a survey that assessed whether the advice that consumers were receiving after the introduction of legislation enabling choice of superannuation fund complied with the law.[4] The survey focused on two potential conflicts of interest – those arising when advisers receive higher remuneration if consumers follow their advice, and those arising when they recommend products from an in-house fund. Based on more than 300 instances of advice given to consumers in the second half of 2005, the survey found that in more than one third of cases where the advisers had a remuneration conflict, the advice received clearly did not, or probably did not, have a reasonable basis. Where there was no remuneration conflict of interest, the comparable figure was only 6 per cent. Similarly, when advisers had a conflict over in-house products, they were three times more likely to recommend an associated product. ASIC has also reported that inappropriate advice was more common when financial advisers receive commission-based remuneration. It has emphasised that remuneration arrangements – whether they are commission-based or fee-for-service – should not influence the quality of advice, including the products recommended.

3.7 Anti-money Laundering and Counter-terrorism Financing

The Government is updating Australia's anti-money laundering and counter-terrorism financing (AML/CTF) regime to reflect developments in financial crime and revised international standards from the Financial Action Task Force on Money Laundering (FATF). Following a period of consultation, a draft AML/CTF Bill has been released. The Bill confers regulatory responsibility on the Australian Transaction Reports and Analysis Centre (AUSTRAC). The agency currently administers the *Financial Transaction Reports Act 1988* (FTR Act), which involves the monitoring of suspicious transactions and record-keeping obligations. In its proposed expanded role, AUSTRAC will have similar obligations in administering the FTR Act, but those obligations will cover more financial institutions. AUSTRAC will also be required to regulate reporting entities' obligations relating to customer identification and verification, anti-money laundering programs, correspondent banking and record-keeping requirements.

4 *See ASIC (2006), 'Shadow Shopping Survey on Superannuation Advice', April.*

3.8 Review of Debt Agreements

The Government announced in July 2006 that Part IX of the *Bankruptcy Act 1966* will be amended to improve the operation of debt agreements. These agreements were introduced in 1996 as an alternative to bankruptcy for debtors who were having difficulties meeting their obligations, but could nevertheless still afford to make some payments to creditors. In 2005/06, there were nearly 5 000 debt agreements, comprising 19 per cent of all administrations under the *Bankruptcy Act*.

The decision to amend the legislation follows a review of debt agreements by the Insolvency and Trustee Service Australia and the Attorney-General's Department. The review noted that although it was originally envisaged that debt agreements could be administered by any individual, the vast majority of agreements are administered by providers charging a fee for the service. The administrators of these agreements were typically paid before other creditors. The review also found evidence of instances where inappropriate advice was given by administrators to debtors with unmanageable debt.

Under the new requirements, firms administering five or more debt agreements will need to be licensed. The *Bankruptcy Act* will also outline the duties of an administrator, including: informing debtors with unmanageable debt of all their available options; fully examining the debtors' circumstances to determine what they can afford to repay; and ensuring that debt agreements are only used when they are a suitable option. Administrators will be required to take their fees proportionately over the life of a debt agreement, not in priority to creditors, and at least 15 per cent of the administrator's fee cannot be received until all creditors have been paid in full. Among other changes, a majority of creditors, both in number and value, must approve a debt agreement proposal for it to be accepted, and all creditors are to be repaid in proportion to the amount owed to them. ✠