

**Australia: Financial System Stability Assessment,  
including Reports on the Observance of Standards and Codes on the following topics:  
Banking Supervision, Insurance Regulation, Securities Regulation, and Payment Systems**

This Financial System Stability Assessment on Australia was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on September 8, 2006. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of Australia or the Executive Board of the IMF.

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**International Monetary Fund  
Washington, D.C.**



INTERNATIONAL MONETARY FUND

AUSTRALIA

**Financial System Stability Assessment**

Prepared by the Monetary and Capital Markets and Asia and Pacific Departments

Approved by Jaime Caruana and David Burton

September 8, 2006

This Financial System Stability Assessment (FSSA) is based on work undertaken during the Financial Sector Assessment of Australia, which included visits to Sydney, Melbourne, and Canberra in November-December, 2005 and March-April, 2006. The findings were further discussed with the Australian authorities during the Article IV consultation mission in June 2006.

The key macro-relevant findings of the FSSA are

- **Australia's financial sector is mature and strong, having enjoyed sustained favorable macroeconomic conditions, with the current economic expansion in its fifteenth year.**
- **The banking system, which holds approximately half of total financial systems assets, is sound, with high earnings, strong asset growth, and low levels of problem assets.** Stress tests did not reveal near-term stability concerns, suggesting the banking system is likely to be resilient to adverse shocks.
- **The banking system, nevertheless, faces a number of vulnerabilities** including (i) macroeconomic shocks; (ii) significant exposure to a highly leveraged household sector; (iii) significant dependence on wholesale funding; (iv) increased competitive pressure; and (v) overall lack of diversification.
- **Australia's financial regulatory and supervisory structure is sound.** There is generally a high level of compliance by APRA and ASIC with international standards. Areas for further strengthening are the AML/CFT framework, the capacity of APRA and ASIC, and the framework for the resolution of failed financial institutions and crisis management.

The mission was headed by Jonathan Fiechter and was composed of Abdessatar Ouanès (deputy chief), Craig Beaumont, Su Hoong Chang, Francois Haas, Elias Kazarian, Jing Li, Benoit Mercereau, Richard Podpiera, Alexander Tieman (all IMF), Felice Friedman (World Bank), Michael Andrews, Richard Britton, Göran Lind, and Nancy Wentzler (consultants) with invaluable support from staff in HQ. The AML/CFT assessment was carried out by the FATF.

*FSAPs are designed to assess the stability of the financial system as a whole and not that of individual institutions. They have been developed to help countries identify and remedy weaknesses in their financial sector structure, thereby enhancing their resilience to macroeconomic shocks and cross-border contagion. FSAPs do not cover risks that are specific to individual institutions such as asset quality, operational or legal risks, or fraud.*

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**GLOSSARY**

ABS	Asset-backed Securities
ACCC	Australian Competition and Consumer Commission
ADI	Authorized Deposit-taking Institutions
AMA	Advanced Measurement Approach
AML/CFT	Anti-Money Laundering/Combating Financing of Terrorism
ANZ	Australian and New Zealand Banking Group
APRA	Australian Prudential Regulation Authority
ASIC	Australian Securities and Investments Commission
ASX	Australian Stock Exchange
ATO	Australian Taxation Office
AUSTRAC	Australian Transaction Reports and Analysis Centre
BCP	Basel Core Principles for Effective Banking Supervision
CAC	Commonwealth Authorities and Companies Act
CAR	Capital Adequacy Ratio
CBA	Commonwealth Bank of Australia
CFR	Council of Financial Regulators
CLERP	Corporate Law Economic Reform Program
CPSS	Committee on Payment and Settlement Systems
CTP	Compulsory Third Party
DMF	Discretionary Mutual Funds
DOFI	Direct Offshore Foreign Insurers
FATF	Financial Action Task Force
FIU	Financial Intelligence Unit
FMA	Financial Management and Accountability Act
FSAP	Financial Sector Assessment Program
FSI	Financial Soundness Indicators
FSRA	Financial Services Reform Act
FTR	Financial Transaction Reports Act 1998
HIH	HIH Insurance Group
IAG	Insurance Australia Group
IAIS	International Association of Insurance Supervisors
ICP	Insurance Core Principles
IDA	Interbank Deposit Agreement
IFRS	International Financial Reporting Standards
IOSCO	International Organization of Securities Commissions
IRB	Internal Ratings-based Approach
LMI	Lenders Mortgage Insurance
LOLR	Lender of Last Resort
MBS	Mortgage-backed Securities
MOU	Memorandum of Understanding

NAB	National Australia Bank
NPA	Nonperforming Assets
NPL	Nonperforming Loans
OECD	Organization of Economic Cooperation and Development
PAIRS	Probability Assessment and Impact Rating System
PSB	Payments System Board
RBA	Reserve Bank of Australia
RBNZ	Reserve Bank of New Zealand
RITS	Reserve Bank Information and Transfer System
RMBS	Residential Mortgage-backed Securities
ROE	Return on Equity
RTGS	Real Time Gross Settlement
SIS Act	Superannuation Industry Act
SME	Small and Medium Enterprises
SMSF	Self-Managed Superannuation Fund
SOARS	Supervisory Oversight and Response Systems
TTC	Trans-Tasman Council
WBC	Westpac Banking Corporation

## EXECUTIVE SUMMARY

**Australia's financial system is sound and healthy, having benefited from sustained favorable macroeconomic conditions over the past 15 years.** It is mature and large, with assets close to \$A 3.0 trillion, equivalent to over 300 percent of GDP.

**The Australian banking system, which holds approximately half of total financial systems assets, and is dominated by four major banks, is sound with high earnings, high asset growth, and low levels of problem assets.** It has been quite profitable with return on equity for the major banks of around 20 percent since the mid-1990s. The system has experienced strong balance sheet growth (averaging 13 percent per annum since 1985) driven by high demand for residential housing loans. The quality of assets is high with nonperforming assets representing only 0.4 percent of total assets.

**Stress tests did not reveal near-term stability concerns, suggesting the banking system is likely to be resilient to adverse shocks.** The banking system rebuilt its balance sheet following losses in the early 1990s relating mostly to commercial real estate lending. The industry has since concentrated its lending on the residential mortgage sector, enhancing considerably the quality of its assets and profitability. It, nevertheless, faces a number of vulnerabilities, including: (i) macroeconomic shocks; (ii) a highly leveraged household sector; (iii) dependence on wholesale funding; (iv) increased competitive pressure; and (v) overall lack of diversification.

**Australia's financial supervisory structure of prudential authority vested in APRA and market conduct authority vested in ASIC is sound overall.** There is generally a high level of compliance by APRA and ASIC with international standards and, in a number of areas, Australia is at the forefront of best practices. Areas for further strengthening are the AML/CFT framework, the capacity of APRA and ASIC, and the framework for financial institution failure and crisis management.

**Following the 2001 collapse of the HIH insurance group, the government acted decisively to restore public confidence in the insurance industry.** It fast-tracked the reform of general insurance and strengthened prudential regulation in key areas identified by the Royal Commission. The mission welcomes the proposed legislation that is intended to provide APRA with enhanced legal powers to deal with troubled general insurers and APRA's ongoing initiatives to implement the Stage II Reforms and formalize prudential practices.

**Good progress is being made by both banks and APRA in preparing for the implementation of Basel II.**

**The mission strongly supports the authorities' initiative to develop a formal process to manage the failure of individual institutions and more wide-spread crises.** Historically, responses to troubled institutions have been *ad hoc* and have relied on provision of official support rather than the remedial powers of the Banking Act or insurance legislation. A long history of no depositor losses resulting from bank insolvencies has created a perception that government will always bail out depositors in failed Authorized Deposit-taking Institutions (ADIs). The failure and crisis management framework should address the question of deposit insurance and policy-holder protection and clearly establish the legal foundation and policy approach to achieve speedy and minimally disruptive resolution of nonviable institutions while minimizing the cost to government.

**The medium-term challenges facing the banking sector are opportunities for growth and pressure on profitability:**

- **The four largest banks, all of which are domestically-owned,<sup>1</sup> have a significant sectoral concentration—albeit in low-risk residential mortgage loans—and geographical concentration in Australia and New Zealand.** Domestic opportunities for growth and further diversification are relatively limited. With two thirds of ADI assets held by the four largest banks, growth through domestic mergers among these banks may raise concentration and competition issues. At the same time, successful expansion overseas has proven problematic in the past.
- **These institutions face growing competition from foreign entities and non-bank financial institutions, which has put pressure on profit margins.** As lending to the household sector slows, banks are seeking alternative sources of income by increasing their lending to the corporate sector, particularly small- and medium-sized enterprises, placing more emphasis on wealth-management activities, and expanding overseas. This strategy may raise their risk profile and, hence, capital requirements.

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<sup>1</sup> Because these banks are listed in the Australian Stock Exchange, it is likely that some portfolio investment is in the hands of foreign investors.

### **Box 1. Main FSAP Recommendations <sup>1/</sup>**

#### **Banking**

- APRA should emphasize strong risk-management practices and maintenance of strong capital reserves as ADIs shift their focus away from residential real estate lending and into businesses such as SME lending and wealth management, and expansion overseas.
- APRA should continue to closely monitor the adequacy of banks' liquidity in light of the declining retail deposit base at the large banks.
- APRA and RBA should build on the experience with the FSAP stress tests to continue the dialogue with banks and consider requesting the banks to conduct and report stress test results on a regular basis.

#### **Insurance**

- Push ahead with Stage II reforms (e.g., capital management, reinsurance documentation, formalized corporate governance standards and fit-and-proper framework, and enhanced disclosures requirements).
- Enhance APRA's legal authority to deal with a troubled general insurer.

#### **Supervisory framework**

- APRA and ASIC, while still relatively young Commonwealth agencies, are making good progress in building their staffs and putting in place systems and policies. It will be important that they maintain this momentum and have the necessary resources and compensation flexibility to attract and retain experienced staff with a solid understanding of the financial sector and the risks inherent in the large institutions.
- Give high priority to make the appropriate legislative and operational arrangements in the AML/CFT area and ensure that AUSTRAC, in carrying out its AML/CFT responsibilities, including on-site verification in financial institutions, collaborates on an ongoing basis with APRA.
- Ensure that the implementation of the recommendations of the Taskforce on Reducing Regulatory Burdens does not unintentionally constrain the supervisor from taking prompt and decisive actions to deal with problem institutions.
- Review the role of the Treasurer with the view to clearly establish the independence of the supervisory agencies.
- Ensure that both APRA and ASIC have adequate financial and staff resources and flexibility in deploying these resources.

#### **Failure resolution and crisis management**

- Continue developing a formal process, including the legal foundation and policy approach to achieve speedy and least cost resolution of failing institutions.
- Build on the progress made within the Trans-Tasman Council to improve coordination in crisis management, given the New Zealand exposure of ADIs.
- Address the questions of deposit insurance and policy-holder protection as an element of a comprehensive framework for resolution of failed institutions and crisis management.

<sup>1/</sup> Other recommendations are found in the body of the FSSA and in the ROSCs.

## I. MACROECONOMIC AND FINANCIAL ENVIRONMENT

### A. Macroeconomic Setting

1. **With the current economic expansion in its fifteenth year, Australia’s financial sector has enjoyed sustained favorable macroeconomic conditions.** Real GDP growth has averaged just under 4 percent annually during 1992 to 2005 and the unemployment rate has fallen to a 30-year low of around 5 percent. Investment opportunities have been higher than in many advanced economies, and net foreign liabilities have gradually risen to 56 percent of GDP from 43 percent in 1990. The resilience of the economy has been noteworthy; growth has not fallen below 2 percent in any calendar year since 1991 despite shocks such as the Asian crisis in 1997-1998, the global IT slump in 2000-2001, and a severe drought in 2002-2003.

### B. Financial Sector

2. **Australia’s financial system is mature, diversified, and large, with assets close to \$A 3.0 trillion, equivalent to over 300 percent of GDP.** Authorized deposit taking institutions (ADIs), comprising banks, building societies, and credit unions account for over half of the assets in the financial sector, with insurance and superannuation funds comprising the bulk of the remainder. The stock market is relatively large, with capitalization exceeding 100 percent of GDP and the securitization market is exceptionally well-developed. The financial sector has been expanding rapidly, more than doubling its size relative to GDP over the past twenty years. This growth was driven by the increase in household appetite for residential housing property, the required contributions for superannuation, which underpinned the substantial growth in the funds industry, and the steady growth of corporate demand for funding, currency management, and more sophisticated financial instruments.

#### Banking sector

3. **The Australian banking landscape is dominated by four major banks (the “four pillars”), which together hold about two-thirds of the Australian banking system assets.**<sup>2</sup> All four banks were rated AA- by Standard and

	Ratings of the Four Majors		
	As at March 2006		
	Standard & Poor’s	Moody’s	Fitch
ANZ Banking Group	AA-	Aa3	AA-
Commonwealth Bank of Australia	AA-	Aa3	AA
National Australia Bank	AA-	Aa3	AA
Westpac Banking Corporation	AA-	Aa3	AA-

Poor’s. Macquarie Bank, the

only Australian-owned investment bank, focuses on investment banking and advisory products and services. The rest of the banking system includes foreign banks (39 foreign

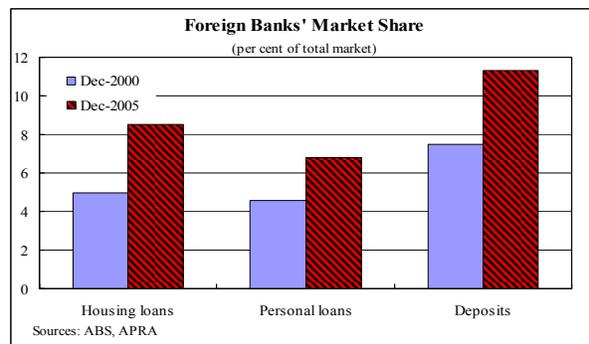
<sup>2</sup> Australia and New Zealand Banking Group (ANZ), Commonwealth Bank of Australia (CBA), National Australia Bank (NAB), and Westpac Banking Corporation (WBC). These four banks have around \$A 960 billion of assets in their domestic book, equivalent to 100 percent of GDP. When their overseas and nonbanking activities are also included, the four majors hold around \$A 1.4 trillion, equivalent to 140 percent of GDP. When the fifth largest bank, St. George, is added, the concentration increases to about 70 percent of total ADI assets.

banks accounting for about 19 percent of ADI assets), several mid-sized regional banks, and a large number of credit unions and building societies with a very small market share.

4. **The Australian banking system is sound with high earnings, strong asset growth, and low levels of problem assets.** The banking industry has been quite profitable, generating high and stable returns for over a decade. Return on equity (ROE) for the major banks has hovered around 20 percent since the mid-1990s, with the system experiencing very strong balance sheet growth driven by high demand for residential housing loans. The quality of assets is high, with nonperforming assets equivalent to 0.4 percent of on-balance sheet assets as of end 2005. As a result, the Australian banks have been able to maintain a low level of provisioning (Figure 1).

5. **Foreign banks in Australia have entered the retail domestic market.** Foreign

banks have become more active in lending to households spurred by strong demand for issues of asset-backed securities among international institutional investors. Foreign banks have also begun to compete for retail deposits. Continued organic growth of foreign banks has provided additional competitive pressures in the marketplace and may over time contribute to alleviating the high level of concentration in the Australian banking system.

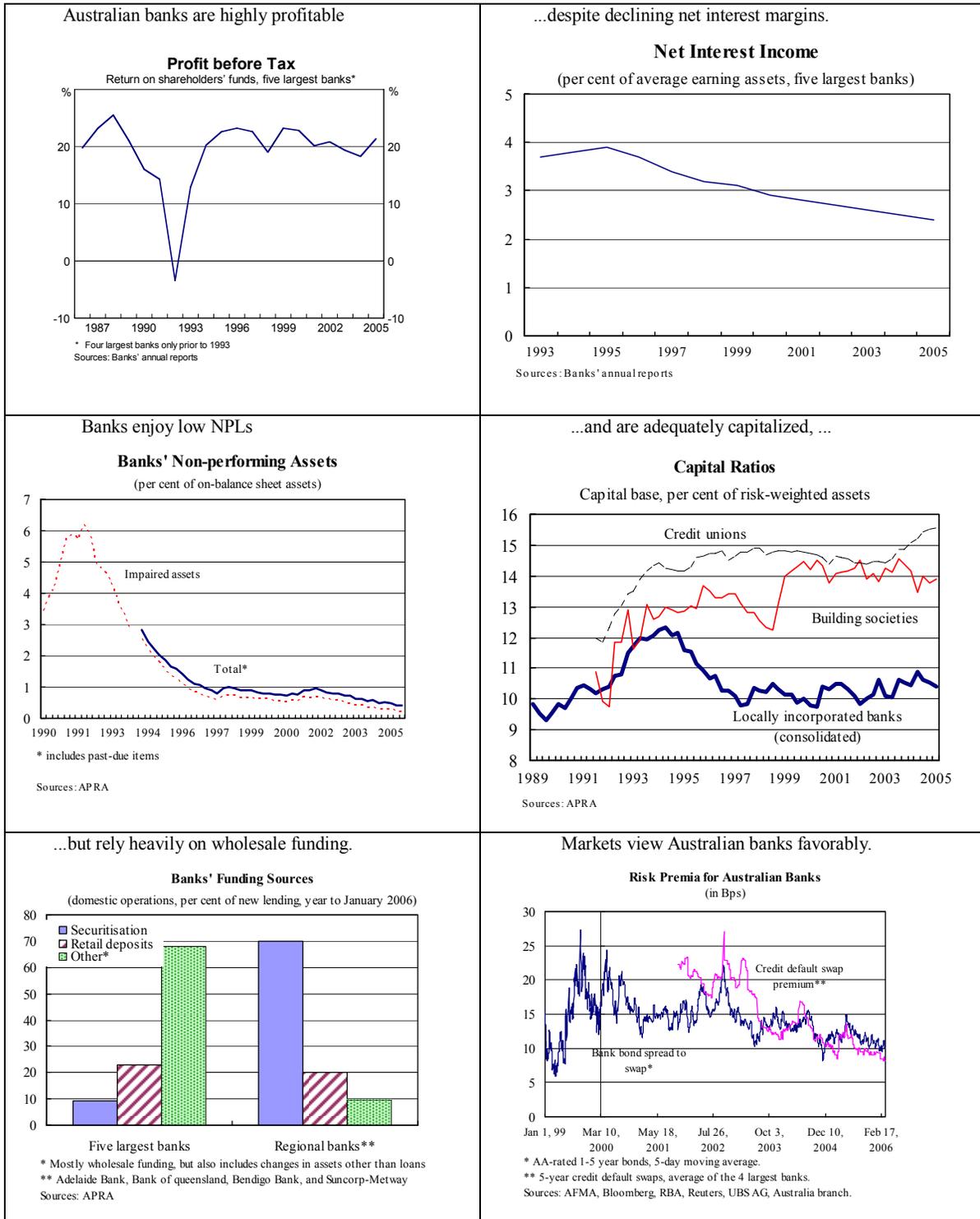


### Insurance sector

6. **General insurance is relatively small and increasingly concentrated.** The general insurance industry controls assets exceeding \$A 80 billion as of year end 2005, with insurance penetration (measured as a ratio of general insurance premium to GDP) close to 3 percent. In recent years, the number of insurers has been declining due to industry consolidation and a tighter regulatory environment. The level of capital was more than two times the minimum requirement (as insurers have built up their reserves in the current benign environment).

7. **The life insurance industry, which is dominated by a handful of financial services groups, is strongly capitalized and is increasingly focused on wealth management.** Six major financial services groups account for 85 percent of total Australian premiums. Prompted by the rapid growth in superannuation resources, the life insurance industry has increasingly focused on wealth management, and by end-2004, nearly 90 percent of the industry assets were superannuation assets. The steady shift away from conventional insurance to investment-linked products, the virtual absence of guaranteed rate contracts, and the strong capital position reduces significantly the risk faced by the industry.

Figure 1. Australia: Indicators of Banking Soundness



Source: Financial Stability Review, Reserve Bank of Australia, March 2006.

## Superannuation (pensions)

8. **Superannuation has been the fastest growing sector of the financial services industry in Australia.** Assets in superannuation schemes as of June 2005 are estimated to be \$A 762 billion, which represents over a quarter of the total assets of the financial system or 85 percent of GDP. It has been driven by (i) demographic pressures, with ageing population; (ii) compulsory employer contributions, which now stand at 9 percent of wages; (iii) significant tax concessions on contributions and invested income; and (iv) real annual investment returns over the last 20 years averaging 6.5 percent. **The supervision of the superannuation system is conducted by three main agencies.** The Australian Prudential Regulatory Authority (APRA) exercises prudential regulation of superannuation entities, the Australian Securities and Investment Commission (ASIC) is responsible for market conduct, disclosure and complaints and the Australian Taxation Office (ATO) regulates the Self-Managed Superannuation Fund (SMSFs).

## Capital market

9. **The Australian stock exchange (ASX) is liquid and relatively large; debt issuance by banks and securitization vehicles dominate the Australian debt market.**<sup>3</sup> Reflecting the strong overall economic performance and the growth in superannuation funds in the past decade, the ASX has grown very rapidly and by end-2005, its capitalization exceeded 110 percent of GDP. The strong performance of the ASX (over 20 percent average increase in each of the past two years) has been driven in large part by the resource sector. It may have also benefited from the flows of superannuation into the market and high demand from foreign institutions (about 42 percent of the market-by-value is owned by foreign institutions). As the government share of the debt market fell from over 56 percent in the mid-1990s to 19 percent in mid-2005, debt issuance by banks and other financial institutions increased sharply to reach some \$A 240 billion at end-2005.

## II. SOURCES OF POTENTIAL RISKS

10. **Overall the financial system is strong and stable.** The banking system experienced major losses in the early 1990s (Box 2), but following the Wallis Report,<sup>4</sup> a great deal has been accomplished to strengthen the financial system. The large banks have cleaned up their balance sheets and enhanced their profitability, leading to an impressive overall performance on the back of sustained economic growth, low unemployment, and a robust corporate sector.

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<sup>3</sup> Australia ranks globally as the seventh biggest foreign exchange market; the U.S. dollar/Australian dollar is the fourth most-traded currency pair; the Australian dollar is the sixth most-traded currency; the stock market is rated eighth largest in the world; and Australia has the tenth largest market for international debt securities.

<sup>4</sup> The Australian Treasurer established in 1996 an inquiry into the Australian financial system, which was chaired by Mr. Stan Wallis. Its objective was a stocktaking exercise of the results of the financial deregulation of the Australian financial system since the early 1980s.

11. **While Australia’s medium-term economic outlook is favorable, the economy remains exposed to a range of potential external shocks.** Potential sources of income volatility include commodity price fluctuations in the mining sector, climatic shocks to agriculture, and shocks to international tourism. China has become an important source of global demand for commodities; hence, Australian incomes are also more exposed to potential variations in China’s economic growth than many advanced economies.

12. **Vulnerabilities also exist within the financial system.** While the Australian financial system was not materially affected by the Asian or the Russian crises, it experienced the failure of a large insurance company in 2001 (Box 2). Vulnerabilities facing

### **Box 2. Previous Episodes of Financial Distress**

#### **Financial distress in the wake of the commercial real estate crisis of the early 1990s <sup>1/</sup>**

**Aggressive lending in the context of deregulation and subsequent increase in interest rates combined to create a serious commercial real estate crisis in Australia in the early 1990s.** Deregulation in the mid-1980s prompted intense competition in the banking system and rapid growth in the balance sheets of financial institutions in an economic environment that was characterized by equally rapid increases in asset prices, particularly in the commercial real estate markets. Interest rates rose in 1989, resulting in a significant softening of the commercial real estate market and commensurate deterioration in credit quality in loans to this sector. The Australian economy then went into recession, which resulted in broad and deep credit quality problems across the balance sheet. By 1992, problem assets for the Australian banking system had increased to 6 percent of total on balance sheet assets.

**The aggregate losses for the banking system from 1990-1992 were more than \$A 9 billion and represented a loss equivalent to about 36 percent of shareholder funds in the system as of 1989.** The most affected financial entities were the state-owned and foreign-owned banks, which had engaged in aggressive lending strategies to increase market share. The state-owned institutions operated with a government guarantee of their liabilities and so when the state-owned banks experienced large losses, the state governments guaranteed repayment of the state banks’ deposits. The foreign banks recapitalized their Australian subsidiaries. In contrast, losses at the private domestic banks were less severe and the capital ratios of the major banks remained above the 8 percent Basel minimum capital requirement throughout the early 1990s.

#### **HIH Insurance Group Collapse**

**The major companies of the HIH Insurance Group (HIH) were put into liquidation in March 2001,** following overly-optimistic valuation of assets and underestimation of liabilities. A Royal Commission investigated the collapse and released its report in April 2003. The Commission found that HIH was mismanaged in the area of its core business as past claims on policies had been neither properly priced nor adequately provisioned. Other causes identified by the Royal Commission included poor governance structure and aggressive accounting practices that were used in some cases to mask the underlying balance sheet problem. The subsequent bail-out has been costly.

**To restore public confidence in the insurance industry, the government fast-tracked the reform of general insurance.** The General Insurance Reform Act 2001 was quickly enacted. Prudential standards for general insurers were strengthened in the areas of valuation of insurance liabilities, capital adequacy, corporate governance and risk management, and reinsurance. These new standards appear to be fully implemented, reducing the likelihood of another HIH-type failure. APRA is building on this with its second stage reform. Nevertheless, APRA still lacks key legal powers required for decisive and cost-effective action to deal with a troubled general insurer.

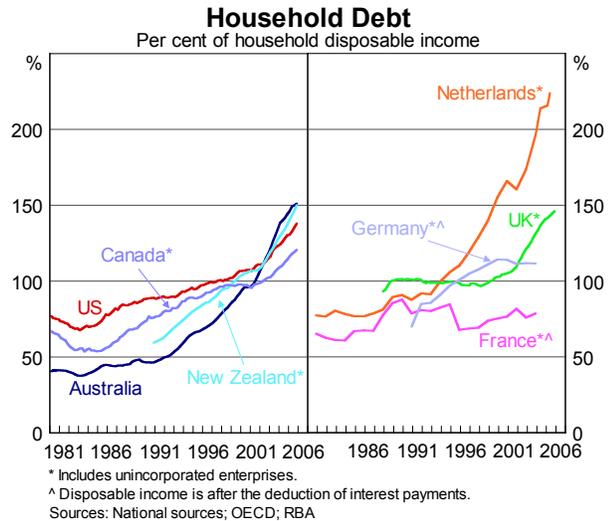
<sup>1/</sup> See paper by Marianne Gizycki and Philip Lowe, “The Australian Financial System in the 1990s,” RBA, December 18, 2000.

the banking system include (i) significant exposure to a highly leveraged household sector; (ii) high exposure to the housing market; (iii) bank dependence on wholesale funding, in particular, offshore borrowings; and (iv) overall lack of geographic and product diversification.

### A. Increased Leverage of the Household Sector

#### 13. The high loan concentration to the household sector is a vulnerability.

Households have historically high debt levels, debt service obligations, and gearing ratios, making them more vulnerable to a downturn in economic activity. The debt-to-income ratio is now above 150 percent and the ratio of interest payments to income has almost doubled since the early 1990s despite the fall in interest rates. These indicators clearly point to a heightened household vulnerability to shocks and significant sensitivity to interest rate changes, given that the majority of household debt is at variable rates. Household debt, however, appears to be concentrated in high income groups who have relatively low debt service burdens and significant financial assets.



### B. Banks' Heavy Exposure to Housing

14. **Australian banks' housing loans have been growing rapidly in recent years, accompanying a sharp increase in real estate prices.**<sup>5 6</sup> Strong housing demand stemmed from low and stable interest rates, rising real incomes, tax incentives for real estate investments, and demographic developments.

15. **Banks overall appear resilient to a shock to their mortgage portfolio.** Stress tests (see below) suggest that banks are well positioned to absorb even a significant fall in house prices. Furthermore, real estate prices have leveled out in the past two years, reducing the likelihood of a sharp price adjustment.

<sup>5</sup> Australian banks are heavily exposed to the housing sector, with approximately 45 percent of assets invested in residential mortgage loans at the five largest banks. In addition, a substantial part of lending to small and medium-sized enterprises is secured by residential property.

<sup>6</sup> House prices increased sharply in 2001–03, leading to a potential overvaluation of the housing market, although they have leveled out more recently. See OECD, 2005, *Economic Outlook*, No. 78.

16. **Nevertheless, the erosion in residential lending standards raises some concerns.** Increased competition for mortgage clients—also due to the cooling of the housing market—has resulted in rising loan-to-value ratios, and banks are making increased use of brokers and engaging in low-documentation (low-doc) lending to maintain loan volume (Table 1). The broader use of these strategies raises risks, especially given the slowdown in the appreciation of housing prices.

Table 1. Changes in Residential Lending Standards

Development	Pre-2000s	Current
Debt-servicing burdens	Traditional 30 percent rule of thumb	Up to 50 percent.
Low-doc lending	Estimated one percent of new loans in 2000 Priced at premium to standard variable rate	Estimated 10 percent of new loans. Up to 30 percent for some regional banks. Reduced premium, often to standard variable rate.
Mortgage brokers	Banks originated loans mainly through branch networks	30–40 percent of new loans originated through brokers.
Maximum loan-to-value ratios	80 percent, unless mortgage insured. No down-payment loans rare	Low and no down-payment loans actively promoted by some banks.
Genuine savings requirements	Requirement to prove part of down-payment is “genuine.”	Reduced (value and time period), and sometimes waived completely.

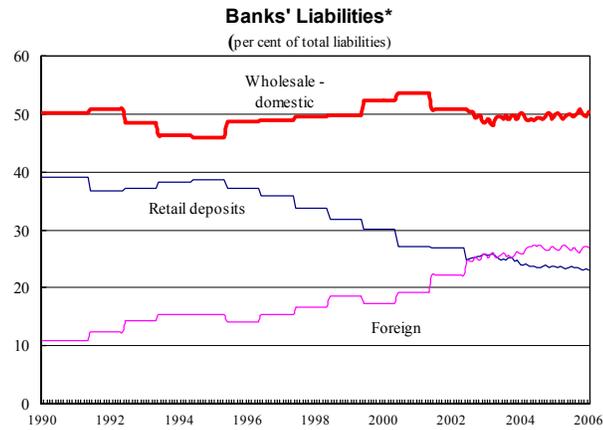
Source: RBA.

17. **Supervisors are aware of the embedded risk.** They have already responded by increasing capital requirements for riskier loan products and for the mortgage insurance industry. In addition, there is a need to enhance risk management and developing robust mechanisms for evaluating banks’ portfolios under different potential stress scenarios.

### C. Bank Reliance on Wholesale Funding

#### 18. The high reliance of banks on wholesale funding is a distinctive feature of the Australian financial system.

The combination of strong credit growth and an erosion of their traditional retail deposit base, which was due in large part to the shift in household financial assets to superannuation funds, has prompted banks to significantly increase their reliance on wholesale funding, both domestic and offshore. This funding structure is predicated on banks maintaining high credit ratings and carries foreign exchange, interest rate, and liquidity



\* All banks. Annual data up to June 2002 and monthly data from July 2002.  
Sources: ABS, APRA

risk. While the foreign exchange and interest rate risks have mostly been hedged, there are nevertheless, operational and counterparty risks associated with hedging activities that need to be monitored.<sup>7</sup> The liquidity and roll-over risk are also important.

19. **To mitigate some of the liquidity risks resulting from reliance on wholesale funding the banks and APRA are paying close attention to liquidity.** The Australian banks hold significantly less liquid assets than their peers elsewhere in Europe and the United States. Nevertheless, there are a number of factors that converge to reduce the liquidity risks exposure of the system. These include (i) a stable international funding environment; (ii) an appropriately flexible exchange rate policy to absorb stress; (iii) banks' efforts to develop alternative sources of funding (including mortgage securitization and interbank deposit agreements) and to diversify their funding sources (in terms of regions and currencies) and instruments while lengthening the tenor of their debt; (iv) RBA's recent decision to widen its definition of acceptable collateral, which provided more flexibility to banks in managing their liquidity risks; and (v) APRA's close involvement in the banks' liquidity policies through its prudential standard on liquidity management.<sup>8</sup> The adequacy and appropriateness of a bank's liquidity management strategy, and its underlying assumptions are also reviewed and agreed by APRA.

<sup>7</sup> Once account is taken of the derivative positions, the unhedged proportion of banks' net foreign currency debt positions is only about \$A 18 billion. After allowing for foreign equity assets of \$A 33 billion, and other foreign exchange derivative positions of -\$A 10 billion, banks' overall foreign currency position was only \$A 5 billion.

<sup>8</sup> APRA requires banks to establish a liquidity management strategy aiming to ensure that banks have sufficient liquidity to meet their obligations as they fall due, under both a "going-concern" scenario and a "name-crisis" scenario.

#### **D. International Exposure and Contagion Risk**

20. **In addition to being concentrated by type of lending and number of banks, the Australian banking system is concentrated geographically.** The banking sector is domestically oriented. Exposure and diversification abroad has been small and mostly limited to neighboring New Zealand and to a lesser extent, the United Kingdom.<sup>9</sup> The New Zealand markets represent the largest overseas exposure of the four major banks (15 percent of their total assets and 85 percent of the New Zealand banking market by assets).

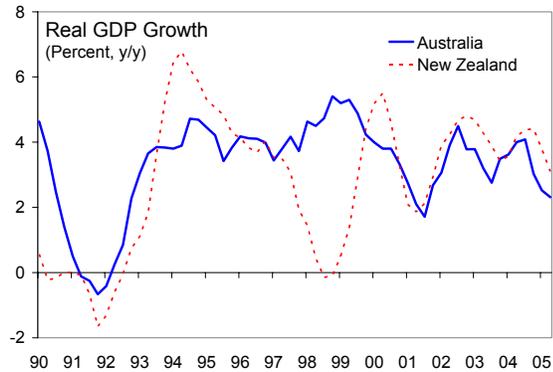
21. **Contagion effects from New Zealand banks to Australian banks could be more severe than indicated by the relative size of their balance sheets (Box 3).** If there were to be financial difficulties in a New Zealand subsidiary, the effects on Australian banks could be material, especially on the funding side. Even if these threats to the parents' liquidity were averted, the reputational cost to the Australian bank of the failure of a New Zealand subsidiary or branch would be substantial, potentially impacting the external funding of the parent bank.

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<sup>9</sup> Exposures to the United Kingdom and Ireland fell in 2005 from 27 percent to 23 percent of total offshore assets with the sale of Northern Bank and National Irish Bank by National Australia Bank.

### Box 3. Contagion Aspects from New Zealand

**The strength of New Zealand banks' loan book is broadly correlated with their Australian parents.** The New Zealand subsidiaries share a similar business strategy with their Australian parents—mortgage lending predominates at 56 percent of total loans, and lending to SMEs is often secured on residential property. New Zealand's economic activity has a high correlation with Australia owing to common external vulnerabilities, including cycles in exchange rates and swap spreads, along with the influence of the larger Australian economy via trade, labor markets, and asset prices. With lending practices following the lead of Australia, there has been a similar easing in credit standards.



Source: Reserve Bank of New Zealand: *Financial Stability Report*, November 2005

**Nonetheless, banks in New Zealand are exposed to significant idiosyncratic risks.** In the near-term, risks to the New Zealand subsidiaries arising from an economic slow-down in that country appear to be well-contained. However, many of New Zealand's exports are subject to climatic and animal disease risks, e.g., foot and mouth disease. The external funding of New Zealand banks involves extensive use of longer-term cross-currency swaps, and with household interest payments at 12 percent of disposable income, a rise in mortgage rates could become a strain on some households. (See New Zealand Financial System Stability Assessment, IMF, May 2004.)

#### Trans-Tasman Council on Banking Supervision

**The high interdependence of the Australian and New Zealand banking systems led to the formation of the Trans-Tasman Council on Banking Supervision (TTC) in February 2005.** The goals of the TTC are to enhance information sharing, promote a coordinated response to financial crises, and guide policy advice to the governments in relation to banking supervision.

**The TTC has recommended legislative changes to lay the foundation for enhanced cooperation between APRA and the RBNZ.** The general provisions are that the two regulators are required to support each other in fulfilling their statutory objectives and, wherever feasible, to avoid actions that could have a detrimental effect on financial system stability in the other country. These recommendations gained the support of both governments in February 2006, and are expected to pass through the usual legislative process in each country. The future TTC work program includes improving cooperation in crisis management, which would build on work currently underway in both countries.

### E. Stress Testing

22. **Three types of stress tests were performed.** First, the five largest domestic banks ran a *macroeconomic stress scenario* over a three-year time period. Second, the same banks ran a series of *single factor stress tests* on interest rates. Third, APRA updated its *mortgage*

*portfolio stress tests*, using data from two regional banks with heavy exposure to the mortgage market.

23. **The single factor stress tests revolved around changes in the yield curve and volatility.** For both the banking and the trading books, the banks simulated: (i) a gradual 300 basis points (bps) steepening of the yield curve out to three years; (ii) a 200 bps upward parallel shift in the yield curve; and (iii) a 100 bps downward parallel shift in the yield curve. In addition, for the trading book only, the banks ran (iv) a 250 percent increase in volatility across the yield curve; and (v) a 75 percent decrease in volatility.

24. **The update of APRA’s mortgage portfolio stress test was limited to two regional banks with heavy exposure to the more risky mortgage products.** These two banks both hold more low documentation (low-doc), large-size, and investor loans than the average Australian bank. Hence, they were seen as the most suitable candidates for a limited update of the original 2003 *mortgage portfolio stress tests*.

25. **The stress tests confirmed, as expected, the resiliency of the banking system.** The mild impact of the tests are due to a number of favorable initial conditions, including (i) the exceptionally clean balance sheet of banks, after a decade and a half of uninterrupted economic expansion; (ii) the dominance of residential mortgage loans in banks’ loan portfolios; and (iii) the recourse by banks to mortgage insurance, which helps absorb part of the risks and hence the “hit” on banks under the scenario. There were also some parameters in the modeling of the macroeconomic scenario that translated into a relatively short-lived recession followed by a recovery, and hence, a less stressful environment for credit risk.<sup>10</sup> Nevertheless, sensitivity analysis featuring a deeper and a more prolonged recession still showed the banking system to be resilient (Box 4).

26. **The stress testing exercise provided a valuable learning experience and an important vehicle for a dialogue on financial stability and systemic risks.** The participating banks valued the exercise against the background of their preparations for the Basel II risk-management framework. The exercise also helped inform the authorities on the various banks’ modeling capacity and areas for improvement. Most importantly, the stress testing exercise has contributed to a useful dialogue between all participants (the banks, the RBA, and APRA) on the vulnerabilities facing the banks and system. It has also demonstrated the importance of refining the stress tests scenarios, enhancing stress testing capacity, and running stress tests routinely.

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<sup>10</sup> The tested scenario assumed constant monetary policy (i.e., no easing in response to the recession), a general economic recovery in the third year, and that private residential mortgage insurers, which play a large role in insuring residential mortgage loans in banks’ housing portfolios, would honor most of their commitments. It should be noted in this context that the two main non-captive mortgage insurers have obtained an Insurer Financial Strength rating of “AA” from Fitch, after being subjected to scenarios described by Fitch as “severe stresses.” They also hold capital in excess of minimum regulatory capital.

### Box 4. Impact of the Stress Testing Scenarios

**Three types of stress tests were undertaken under the FSAP.** The first two covered the five largest banks, while the third covered two regional banks with heavy mortgage exposures.

- **A macroeconomic stress scenario:** envisaging a recession with an initial large drop in housing price (-30 percent drop in the first year), a substantial increase in the rate of unemployment (from 5 percent to a peak of 9 percent), exchange rate shocks (a 40 percent depreciation of the Australian dollar vis a vis the trade weighted index), and increased funding costs for the banks.
- **A series of single factor stress tests** to determine the sensitivity of their banking and trading books to interest rate shocks.
- **A partial update of APRA mortgage portfolio stress tests.**

**The results of the stress tests did not reveal any near-term stability issues** (Appendix I). Under the *macroeconomic stress test*, the large Australian banks exhibited considerable resilience. While their financial performance deteriorated in response to shocks to their mortgage portfolios and funding costs, the banks withstood the adverse macroeconomic scenario relatively well. Moreover, the *single factor stress tests* suggested that the banks' exposure to interest rate shocks is limited and concentrated in the banking book. Finally, APRA's partial update of the *mortgage portfolio stress tests* indicated that the tested regional banks would remain above their regulatory minimum capital requirements in the envisaged stress scenario.

**The results of the stress tests can be explained by several specific factors:**

- **The favorable macroeconomic starting point.** After almost 15 years of economic expansion, the banks portfolios are very healthy (NPAs in 2005 amounted to 0.4 percent of assets). Business sector balance sheets exhibit considerable strength as well. In addition, a flexible exchange rate regime acts as an important cushion to the domestic economy.
- **The portfolio composition.** Banks' portfolios have a heavy residential mortgage exposure to the household sector, which is generally resilient to a short-lived recession. Therefore, one can anticipate a mild impact of the stress test because the increased rate of unemployment projected under the macroeconomic scenario still allows for the households to keep up their mortgage payments, while curtailing all other spending. Moreover, some credit losses from mortgage defaults are born by mortgage insurers, limiting the banks' losses. Thus, the major impact of the envisaged scenario is likely to be indirect through lower consumer spending, which shows up in parts of the corporate portfolio and in the SMEs. In addition, credit risks in personal loans and credit cards will increase.
- **Modeling restrictions.** In the macroeconomic scenario, tension exists between keeping monetary policy (the cash rate) constant, and the length of the recession. Consistent with an assumption of an unchanged monetary policy, the recession was assumed to be short-lived. Because no recession has occurred in the last 15 years, it is difficult to make any statistical inferences from past data on the impact on defaults and losses of a recession. This highlights the need to treat the stress testing results with caution. This is particularly important in the case of the mortgage lending results where the structural characteristics of household balance sheets and the risk characteristics of mortgage products have changed quite markedly in recent years. This means that default outcomes from past recessions may not to be a good guide to how future events play out.
- **Availability of liquidity.** Australian banks rely heavily on the wholesale market to fund themselves. Currently, some 50 percent of their funding is wholesale domestic, while 27 percent consists of wholesale offshore funding. Any stress on offshore liquidity is compensated for (in the short term) by the availability of domestic liquidity (at a price somewhat higher than the current price), while the currency risk is typically fully hedged. In the medium-term, refinancing risk seems limited. The flexible exchange rate regime will likely translate into continued access to offshore borrowing, albeit at a higher price. Moreover, the average maturity on Australian banks' offshore bonds is currently around four years, and Australian capital markets are deep.

### III. THE SUPERVISORY/REGULATORY FRAMEWORK

27. **Australia has adopted a functional approach to regulation** recommended in the 1997 Wallis Commission report, consolidating prudential regulation from 11 predecessor agencies into the Australian Prudential Regulation Authority (APRA), and market conduct regulation into the Australian Securities and Investments Commission (ASIC). Recently, in line with the functional approach, Australian Transaction Reports and Analysis Centre (AUSTRAC) has been assigned the AML/CFT role. The functional approach offers the potential benefit of treating in a similar way the risks and market conduct concerns for similar products offered by different types of financial institutions.

28. **A Council of Financial Regulators (CFR) provides a useful forum to address emerging trends and policy issues.** The CFR consists of high-level representatives of the RBA, the Treasury, the APRA, and the ASIC, and meets regularly. Given the important role played by each of these entities in the formulation of financial institutions policy, in interacting with foreign counterparts and standard setters, and in monitoring and evaluating trends in domestic and international markets, the CFR is an important forum for the Australian financial sector. In the event of a crisis, moreover, the CFR would serve as the key coordinating body for developing an official response.

#### A. Supervisory and Regulatory Effectiveness

29. **Australia's approach to prudential and market conduct regulation is sound overall.** There is a generally high level of compliance with international standards and in a number of areas, including transparency, Australia is at the forefront of best practices. APRA and ASIC, while still relatively young Commonwealth agencies, are making good progress in building their staffs and putting in place systems and policies. It will be important that they maintain this momentum and have the necessary resources and compensation flexibility to attract and retain experienced staff with a solid understanding of the financial sector and the risks inherent in the large institutions.

30. **The main areas where further strengthening is required relate to anti-money laundering and countering the financing of terrorism, clarifying the role of the Treasurer regarding APRA and ASIC, and updating the legislative framework.** Revised legislation is in preparation to fully modernize the AML/CFT regime. In building up the capacity for AML/CFT in AUSTRAC, it is important to ensure strong cooperation between AUSTRAC and APRA and to facilitate the sharing of information between the two agencies by making APRA a partner agency of AUSTRAC.

31. **While the potential involvement of the Treasurer in financial sector supervision and regulation is intended to ensure accountability under Australia's system of ministerial accountability, in some areas (e.g., general insurance) it extends beyond policy development and responsibility for the legislative framework.** The authorities consider that the power of the Treasurer to issue directions to APRA and ASIC on policies and priorities is subject to suitable transparency requirements that provide appropriate accountability in the use of this power. The authorities agreed, nevertheless, to remove the

Treasurer's involvement in operational decisions, as part of their response to the HIH Royal Commission. The forthcoming formulation of the "Statement of Expectations" for the supervisory agencies should provide an opportunity for the authorities to clarify and enhance APRA and ASIC's independence and align them with the full operational independence required to meet the international standards for prudential and market conduct regulation.

**32. Some of the key measures identified following the failure of the HIH Insurance Group have not yet been implemented.** In particular, while enforcement and remedial powers are adequate with respect to banking and life insurance, APRA lacks key legal powers required for decisive and cost-effective action to deal with a troubled general insurer. The government is currently reviewing APRA's powers to intervene in situations of financial stress, with a view to consulting with industry shortly.

### **B. Basel II Preparations**

**33. As in other countries adopting Basel II, APRA needs to manage the Basel II implementation process very carefully.** Key Basel II concepts such as the establishment of institution-specific capital adequacy requirements are already part of APRA's supervision framework. For the major New Zealand subsidiaries of the Australian banks, APRA and the RBNZ have entered into formal agreements, including staff secondments, to optimize the use of supervisory resources and reduce compliance costs.

**34. The large residential mortgage portfolios of the Australian banks could generate relatively large drops in required capital under the Pillar 1 calculations of Basel II.** It will be important that APRA institute an effective supervisory review process under Pillar 2 and set banks' capital requirements at a level that provides a sufficient cushion for the risks embedded in their portfolio.

### **C. Informal Assessment of Corporate Governance and Investor Protection**

**35. An informal assessment of the corporate governance framework for Australian listed companies was undertaken and concluded that it is largely healthy and dynamic.** While there can be no guarantee against corporate fraud or failure, and the governance framework can always be improved, in Australia, disclosure and corporate governance have become part of the fabric of doing business. Disclosure and corporate governance practices are integral to the supervisory model. While there is some concern about compliance costs, listed companies recognize the benefits of a system where frequent market announcements are routine.

### **D. Efficiency and Regulatory Burden**

**36. The private financial sector has expressed concerns over the effectiveness and efficiency of the regulatory and supervisory regime.** Submissions to the Australian

Government Regulation Taskforce,<sup>11</sup> however, while critical of the rule-making process and the quantity and level of detail of some rules, did not propose to fundamentally alter the approach to financial sector oversight. There is an acknowledgment that Australians benefit from sound institutions and well-regulated markets and that coordination among supervisory bodies and consultation with the industry has improved. A key issue raised was the level of meaningful consultation with the industry before major laws and regulatory policies are developed and policies implemented. While most recommendations would support efforts already underway to enhance coordination and cooperation among the regulators and to improve industry consultation, it is important that actions not be taken that might weaken the authority of the regulatory agencies to deal promptly with emerging problems.

#### IV. SYSTEMIC LIQUIDITY, CRISIS MANAGEMENT AND SAFETY NET

37. **The current institutional arrangements for financial stability have not been tested.** The failure of HIH was a severe event, but did not create a financial crisis. Nevertheless, experience with HIH highlighted the need for improved arrangements to manage the failure of financial institutions and contingency planning for crisis management. There are some unique features of the Australian system with regard to systemic liquidity issues and the safety net that factor into this contingency planning.

##### A. Systemic Liquidity

###### Wholesale funding

38. **The low level of household deposits in the large Australian banks has forced these banks to become heavily reliant on wholesale funding, a material portion of which comes from international markets.** This makes them individually more vulnerable to an event such as a ratings downgrade and collectively more vulnerable to an external event such as a collapse in commodity prices that might affect investor sentiment toward Australia. APRA has recognized this increasing liquidity risk and has increased its level of monitoring of bank liquidity and tightened its liquidity requirements.

###### Interbank Deposit Agreements

39. **To partially address the stricter liquidity requirements imposed by APRA, the four largest Australian banks have entered into interbank deposit agreements (IDAs).** These IDAs enable any of the four to obtain secured deposits of up to \$A 6 billion (\$A 2 billion each) from the other three banks.<sup>12</sup> The usefulness of the IDAs arises when a liquidity shortage at one bank is accompanied by excess liquidity at the other three banks, as depositors fleeing one large bank deposit their funds with the other large banks. In the event

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<sup>11</sup> The Australian Government Regulation Taskforce was established in October 2005 to examine and report on areas where regulatory reform can provide significant immediate gains to business. Its report and the Government's response were released on April 7, 2006.

<sup>12</sup> Deposits are to be secured by eligible housing loans—essentially low-risk conventional mortgage loans.

that the banking system as a whole experiences a liquidity shortage (e.g., an external shock causes domestic and foreign institutions to reduce their exposure to Australian banks), the IDAs would be ineffective.

### **Lender of Last Resort**

40. **As the institution in charge of financial stability and monetary policy, the RBA also is Australia’s lender of last resort (LOLR).** The RBA routinely provides market liquidity through its normal repurchase facility. In addition, in its role as LOLR, the RBA may provide liquidity support to individual institutions. Such support would be made available to ADIs that are solvent and whose failure to make payments would have systemic implications. In assessing solvency, the RBA would rely on APRA’s judgment. Liquidity support may also be provided by the RBA, on behalf of the Government, in other circumstances.

### **B. Failure Resolution and Crisis Management**

41. **The mission strongly supports the authorities’ initiative to develop a formal process to manage the failure of individual institutions and more widespread crises.** Historically, responses to troubled institutions have been *ad hoc* and have relied on provision of official support rather than the remedial powers of the Banking Act or insurance legislation.

42. **The failure and crisis management framework should clearly establish the legal foundation and policy approach to achieve speedy and minimally disruptive resolution of nonviable institutions.** This would minimize the likelihood that government will be forced to resort to broad *ad hoc* depositor and policy holder bailouts, while providing a means to resolve a failed institution in an orderly and low cost manner.

43. **A key requirement for achieving minimally disruptive solutions is the ability to quickly seize control and resolve a problem institution.** This may be possible under the statutory management and liquidation provisions of the Banking Act, but for greater certainty the authorities should consider introduction of express provisions to seize control of a failing institution while it is still “solvent” and to impose a resolution without shareholder and creditor consent.<sup>13</sup>

44. **The authorities should consider arrangements that would facilitate purchase and assumption transactions of failed institutions when these can result in lower cost resolution outcomes.** Such arrangements would not provide payments to failing institutions, but would facilitate “top-up” payments to an investor acquiring the business of an intervened

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<sup>13</sup> Examples of these types of provisions are found in the receivership powers provided by the U.S. Federal Deposit Insurance Corporation Act, and the financial institution restructuring provisions of the Canada Deposit Insurance Corporation Act. Equivalent powers are required for life and general insurance companies as well as for ADIs.

institution. The mission urges the authorities to persevere in their efforts at developing an appropriate approach and underscores the importance of putting in place an effective framework for managing crises in terms of (i) preserving financial and economic stability during a crisis; (ii) avoiding moral hazard and enhancing market discipline before a crisis; and (iii) reducing the fiscal cost of a crisis.

### **Safety net**

45. **There currently is no explicit scheme to ensure timely payment to depositors or insurance policy-holders in the event of a failed institution.** Government intervention to compensate policy-holders in the most recent financial institution failure (HIH Group), coupled with the history of arranged mergers and state government support for failing banks, contributes to the expectation of a majority of Australians that government would guarantee or bail-out depositors in a failed ADI.<sup>14</sup> This expectation is also imbedded in the ratings of Australian banks.<sup>15</sup> A measure of protection is also provided for depositors by the depositor preference provisions of the Banking Act, and priority of claims for life insurance policyholders, but such protections do not ensure timely access to funds. There is no equivalent priority for general insurance policy-holders.

### **Depositor preference**

46. **The Banking Act provisions for depositor priority are intended to reduce the likelihood that Australian depositors suffer a loss in the failure of a bank or other ADI even in the absence of a government bailout.** The depositor preference system, however, has not been tested. The concept of “deposit” is not defined precisely in the Banking Act to clarify which creditor might in fact be at risk in the event of a failure. Hence, exactly which liabilities would be covered by the preference may be subject to litigation. Another specific concern is the timing of availability of depositors’ funds in a liquidation; it may take an extended period of time for depositors to be paid under the deposit preference system, creating pressure on government to take immediate steps to pay depositors.

### **Depositor and policy-holder compensation**

47. **The CFR has released a proposal to establish an explicit financial claims compensation scheme to strengthen the government’s ability to address failures, which could be a useful element of an enhanced framework for failure resolution and crisis management.** The banking industry has opposed the proposal, which is not surprising given that all parties currently have the benefit of an implicit unlimited government guarantee. In

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<sup>14</sup> Results of a 2006 survey commissioned by the RBA. See *Financial Stability Review*, March 2006.

<sup>15</sup> See Moody’s *Australia Banking System Outlook*, December 2005. “It should be noted that the stated regulatory position is that no support is available for ailing banks in Australia. Nevertheless, we believe that ... relatively high levels of support may in practice be made available to institutions that require it, if they are significant on either a national or State level.”

the absence of a credible alternative, however, it will be difficult for government to withstand the pressure for a continuation of official bailouts in future failures.

## V. MEDIUM-TERM CHALLENGES

48. **The four largest banks' high concentration by sector and geography heightens the importance of risk management and capital adequacy.** The domestic opportunities for growth and further diversification are quite limited. A merger involving two or more of the large banks would not in and of itself enhance diversification, given the similarity in the banks' operations and revenue streams. A merger with a large international bank offers potential diversification, scale and scope benefits, but this option is only available on application to the Treasurer and is subject to a national interest test under the Financial Sector (Shareholdings) Act and consideration by the Foreign Investment Review Board. At the same time, the four largest Australian banks are relatively small in comparison with internationally active banks and their business ventures overseas have had mixed results. Recent investments overseas may in time lead to diversification of risk, but in the interim, bring their own financial risks and potentially heavy demands on management resources. Given the limited scope to diversify portfolio risks, the prudent response is likely to focus on increasing the sophistication of the risk management programs within the banks and maintaining capital levels commensurate with the concentration risks.

49. **The financial sector, particularly the large banks, faces significant operational and strategic challenges.** The banks are increasing their focus on business lending and moving more emphatically into wealth management activities. Both of these areas have very different risks than residential mortgage lending. While banks had some presence in these areas, a significant increase in the level of activity may magnify the risks. Business lending, while supported in part by the increasing levels of business investment and growth in Australia, may be less diversified than household lending and historically has been more vulnerable to rapid and large deteriorations in credit quality. Moreover, the lending and credit skills required to operate in an environment when credit quality is not so benign and strategic shifts are underway are very different than those required in the recent past.

50. **In addition, striking similarities in future strategies of the major banks are likely to lead to intense competition, which could put further pressure on earnings and heighten risks.** The banks must be wary of reaching for yield to offset declining volume in other parts of the portfolio, especially given the strong competition from other banks and nonbank sources of funding for the businesses. A reach for yield in this environment will require a careful consideration of the embedded risk and capital and overhead necessary to manage that risk. With better risk management, adjustments to banks' capital levels to reflect any increased risk, and careful monitoring, the transition can be made successfully.

## ANNEX: OBSERVANCE OF FINANCIAL SECTOR STANDARDS AND CODES—SUMMARY ASSESSMENTS

The annex contains summary assessments of four international standards relevant for the financial sector. The assessments were undertaken in the context of the FSAP during December 2005 and have helped to identify the extent to which the supervisory and regulatory framework is adequate to address the potential risks in the financial system in Australia.

The following detailed assessments of financial sector standards were undertaken:

- The Basel Core Principles for Effective Banking Supervision (BCP), by Michael Andrews (banking expert from Canada) and Göran Lind (Sveriges Riksbank);
- The International Association of Insurance Supervisors (IAIS) Insurance Core Principles (ICP), by Su Hoong Chang (IMF, MFD);
- The International Organization of Securities Commission (IOSCO) Objectives and Principles for Securities Regulation, by Richard Britton (securities expert from the United Kingdom);
- The Core Principles for Systemically Important Payment Systems (CPSIPS) by Elias Kazarian (IMF, MFD).

The assessments were based on several sources, including:

- Self-assessments and a helpful pre-conditions paper provided by APRA, ASIC, RBA, and Treasury;
- Reviews of relevant legislation, regulations, policy statements and other documentation;
- Discussions with the supervisory authorities and the Treasury; and
- Meetings with financial market participants, users of payment system infrastructure, and financial sector associations.

The FATF 40 Recommendations for Anti-Money Laundering and 9 Special Recommendations on Combating the Financing of Terrorism were assessed by the Financial Action Task Force. The Associated Report on the Observance of Standards and Codes (ROSC) will be distributed separately.

### **A. Summary Assessment of Compliance with the Basel Core Principles for Effective Banking Supervision (BCP)**

#### **General**

51. The assessment of implementation of the Basel Core Principles for Effective Banking Supervision has been completed as part of a Financial Sector Assessment Program. It requires a review of the legal framework, both generally and as specifically related to the financial sector, and a detailed examination of the policies and practices of the institutions responsible for banking supervision. The assessment team received the full cooperation of its counterparts and received all information required.

### **Institutional setting**

52. The Australian Prudential Regulation Authority (APRA) is the agency responsible for the prudential supervision of banks, insurers and superannuation funds. The Australian Securities and Investments Commission (ASIC) is the market conduct regulator and also administers the provisions of company law for both listed and unlisted companies. The Reserve Bank of Australia (RBA) has responsibility for payment system oversight and overall financial stability. The Australian Transaction Reports and Analysis Centre (AUSTRAC), has a dual role as a financial intelligence unit (FIU) and as the regulator responsible for ensuring compliance with current AML/CFT legislation. With respect to banking and other financial services issues, the Treasury is responsible for the preparation of laws and regulation and provides the Treasurer with policy advice. Legislation confers on the Treasurer certain responsibilities and the Treasurer is also empowered to play a role in financial sector supervision through issuing directions to APRA and ASIC. With respect to AML/CFT, the Attorney-General's Department is responsible for the preparation of laws and regulation and provides the Minister for Justice and Customs with policy advice.

### **General preconditions for effective banking supervision**

53. Australian banks have benefited from a domestic market characterized by sound macroeconomic policies and 14 years of uninterrupted growth. The financial sector is large and diversified, with authorized deposit-taking institutions (ADIs) playing a major role. There is an appropriate body of commercial law and a respected judiciary. Australia adopted International Financial Reporting Standards (IFRS) from January 2005, and the accounting profession is widely recognized as meeting a high international standard. The Banking Act and broader provisions of corporate and bankruptcy law provide a sound regime for resolution of problem institutions.

### **Main findings**

54. Australia has a high overall level of compliance with the Core Principles. The Probability Assessment and Impact Rating System (PAIRS) and Supervisory Oversight and Response Systems (SOARS) provide a foundation for banking supervision that is at the leading edge of current approaches to risk-focused supervision. The approach is still relatively new, and subject to ongoing refinement. Overall quality of supervision is good, but there is some variation among the various divisions and teams. Efforts to achieve greater standardization in the work of various supervisory teams, while at the same time avoiding the pitfalls of a check-list mentality, would improve the overall quality of supervision. Further guidance could be provided to supervisory staff to frame the exercise of judgment.

### ***Objectives, Autonomy, Powers, and Resources (CP 1)***

55. There is an appropriate body of banking laws and regulations. APRA enjoys legislated operational independence. However, the Treasurer has the power to issue directions to APRA on policies and priorities, but such a direction may not be given about a

particular case. The power to issue directions is tempered by various prerequisites such as the Treasurer having to consult with the APRA Chairman before submitting a direction, having to publish the direction in the Gazette, and tabling it, including the arguments for it, in the Parliament.

56. APRA has a mandate clearly defined in law, as well as legal provisions for coordination and information sharing with other agencies. The banking law provides a range of available remedial powers, and there is legal protection for individual supervisors while discharging their duties in good faith. APRA is funded through levies on the regulated entities. APRA is accountable to the Australian government for the performance of its duties.

57. Following the Review of the Corporate Governance of Statutory Authorities and Office Holders (Uhrig Review), the Government has decided that APRA will become subject to the Financial Management and Accountability Act (FMA Act), rather than the current jurisdiction of the Commonwealth Authorities and Companies Act. The Government has provided assurances that APRA's transition to the FMA Act will be subject to a number of exemptions, which will be important to maintain APRA's current flexibility in budgeting and establishing operational priorities. APRA staff will remain outside civil service salary constraints. To do otherwise, could make it extremely difficult to attract the skilled staff required for effective prudential oversight.

#### ***Licensing and Structure (CPs 2–5)***

58. The licensing regime is well developed, as is the process for significant acquisitions and investments and the review of changes in ownership of significant shareholdings (15 percent and above) in banks. However, the scope for some financial companies to operate in Australia as unregulated and unsupervised institutions (in the form of finance companies or merchant banks, which may be owned by entities licensed as banks in other jurisdictions), although not of a size which can be seen as leading to systemic risks in itself, is excessive. The boundaries between the regulated and non-regulated entities are blurred because of the ability of non-regulated companies to issue, using short prospectuses, deposit-like instruments to retail investors.

#### ***Prudential Regulations and Requirements (CPs 6–15)***

59. Most prudential regulations and their implementation are of a very high standard. The prudential requirements for capital and capital adequacy ratios in banks are in line with international best practices, which will facilitate the adoption of the Basel II capital framework. The major shortcoming in this group of principles is CP 15, Prevention of the Use of the Banking System by Criminal Elements. Efforts are already underway to address this issue, with new anti-money laundering legislation released for public consultation on 16 December 2005, together with a planned increase in the resources of AUSTRAC to allow it to undertake a full program of on-site verification. Australia's decision to allocate to a financial intelligence unit complete responsibility for verification of the adequacy of banks' management of the prudential risks arising from AML/CFT is an approach rarely seen

internationally. Provided that AUSTRAC is able to share all necessary information so that APRA is fully apprised and able to take appropriate action to deal with the insights into broader issues of compliance, internal controls, liquidity and reputational risk that will need to be addressed in AUSTRAC's on-site work to meet the requirements of CP 15, Australia will be able to move towards full compliance with this principle.

### ***Methods of Ongoing Supervision (CPs16–21)***

60. Australia has a supervisory function that embodies many best international practices. The prudential framework is principles based, and the sample on-site and off-site work reviewed by the assessment team indicates a generally high standard of implementation. The approach to consolidated supervision is particularly noteworthy, with solo, group and conglomerate issues being considered as appropriate. The only concern with these principles relates to the variation of quality in ongoing supervision, which is likely attributable to the high turnover in APRA staff.

### ***Formal Powers of Supervisors (CP 22)***

61. The legislation as well as prudential standards generally provide a broad range of powers to take remedial action to address weaknesses in banks. There are also rules and processes in place to enforce prompt action, when needed, and to ensure that the required measures are implemented by the institution.

### ***Home-Host Supervision (CPs 23–25)***

62. Australia has a sound regime for home and host country supervision, including memoranda of understanding with many foreign supervisory authorities. APRA has concluded MoUs with several "host supervisors" of Australian banks aiming to facilitate cooperation and exchange of information. As noted above, foreign banks may under certain conditions be exempt from regulation and supervision in Australia. The rules for such exemptions should be updated to clarify the borderlines between institutions which perform quasi-bank activities and thus should be regulated with the aim to protect depositors and to promote financial stability, and those institutions which still might be exempted.

Table 2. Recommended Action Plan to Improve Compliance with the Basel Core Principles

Reference Principle	Recommended Action
CP 1(6): Information sharing	<ul style="list-style-type: none"> <li>Remove the legal obstacles to AUSTRAC sharing information with APRA and implement effective coordination with respect to the information gathered by AUSTRAC that is relevant to APRA's prudential oversight of the adequacy and implementation of banks' internal policies</li> </ul>
CP 2: Permissible activities	<ul style="list-style-type: none"> <li>Revise the criteria for exempting institutions from regulation so that the demarcation line between regulated and non-regulated entities becomes clearer.</li> </ul>

Reference Principle	Recommended Action
CP 15: Use of banks by criminal elements	<ul style="list-style-type: none"> <li>Establish an effective supervisory verification program, ensuring that APRA is able to obtain all necessary information regarding prudential issues, including those that extend beyond AUSTRAC's narrow mandate.</li> </ul>
CP 25: Supervision Over Foreign Banks' Establishments	<ul style="list-style-type: none"> <li>Revise the criteria for exempting institutions from regulation so that all foreign bank subsidiaries undertaking bank-like business in Australia are subject to APRA oversight.</li> </ul>

63. Australia is already implementing plans to address the most serious shortcoming—the need for an on-site verification regime to ensure banks have appropriate policies and procedures in place to prevent the use of the banking system by criminal elements. Greater certainty regarding the operational independence of APRA would be provided by removing the legal power of the Treasurer to give directions. It is important that the ongoing review of APRA's financial accountability should not lead to measures, such as further budgetary restrictions or subjecting staff to civil service salary scales, which might impair effective supervision. The criteria for exemptions from the prudential framework applicable to ADIs should be revised to ensure that only institutions which fund themselves on a truly wholesale basis are exempted from APRA regulation and supervision.

#### **Authorities' response**

64. The Australian Government considers that this has been a high quality assessment and is valuable in assisting it to consider Australia's framework for regulating banks. It shows Australia's high level of compliance with the core principles.

65. The Australian Government recognizes that to achieve high quality outcomes in prudential regulation it is important to have a regulator with operational independence from government. However, it is also an important element of the Australian system of ministerial accountability that governance and accountability arrangements operate in such a way that regulators follow the policy intention of the parliament when implementing legislation.

66. The Government considers that the power of the Treasurer to issue directions to APRA on policies and priorities (but not particular cases) strikes an appropriate balance in this regard. The conditions attached to this power, such as discussing the proposed direction with the APRA Chair and tabling the direction in parliament, provide transparency and accountability in its use, such that a direction would only be considered as a final option. To date the Treasurer has not given APRA any directions under this power.

67. As part of a government wide review of statutory authorities, the Treasurer has agreed to move APRA's financial framework to the *Financial Management and Accountability Act 1997* (FMA Act) from the current *Commonwealth Authorities and Companies Act 1997* (CAC Act). Prudential regulation is a core function of government, and the FMA Act is the financial framework that most appropriately applies to agencies delivering core functions.

The CAC Act is most applicable to government entities that undertake commercial operations.

68. The Government does not consider that this change will materially affect APRA's operational independence or funding. It is APRA's enabling legislation (the *Australian Prudential Regulation Authority Act 1998*) that establishes the required level of operational independence necessary to exercise statutory powers objectively. Further, the Government has exempted APRA from a small number of conditions under the FMA Act that may affect its ability to fulfill its duties efficiently and effectively. As a result, the change to the FMA Act will not affect how APRA is funded or reduce its autonomy in deciding how it spends its funding and organizes itself (including its ability to set the employment terms and conditions of its staff) to meet its statutory obligations.

69. More generally, the Australian Government considers that its overall budget approach, in which all government agencies are subject to appropriate accountability, has facilitated a sustained period of responsible fiscal outcomes while allowing adequate resourcing of core government activities.

70. As the IMF has noted, the Government is committed to updating Australia's anti-money laundering and counter-terrorist financing (AML/CTF) regime to reflect developments in financial crime and revised international standards from the Financial Action Task Force on Money Laundering (FATF).

71. In keeping with its commitment the Australian Government is closely consulting with industry on a range of reforms. Legislation is expected to be introduced during 2006. The reforms when implemented will bring Australia into compliance with the FATF recommendations and will ensure that Australia's financial sector, in meeting its obligations, remains robust and internationally competitive.

72. Processes are currently in place to amend the existing *Financial Transaction Reports Act 1988 (FTR)* to allow AUSTRAC to share FTR information with APRA. This will also involve the establishment of a Memorandum of Understanding (MOU) between the two authorities. Under the proposed AML/CTF legislation APRA will be included as a partner agency with which AUSTRAC can share FTR information. These arrangements will ensure that APRA is provided with information essential to assessing reputational and liquidity risks within APRA regulated institutions. In addition, APRA and AUSTRAC will continue to improve broader cooperation and coordination arrangements.

73. While acknowledging Australia's sound regime for home and host country supervision, the IMF recommends clarifying the borderline between institutions which perform quasi-bank activities, and institutions which might still be exempted from regulation and supervision. Australia seeks to promote a vibrant and competitive financial sector, consisting of a broad spectrum of both regulated and unregulated financial institutions. Nevertheless, we accept that within this diversity of institutions, we need to rationalize the basis for exemptions granted from prudential regulation to ensure that depositors are

adequately protected, and that Australia is able to meet its home-host supervisory obligations with other prudential regulators. We are currently considering the best way to achieve this.

74. The IMF considers that Australia's supervisory function embodies many best international practices but expresses concern that the quality of the supervision provided by APRA is variable, most likely attributable to the high turnover in APRA staff. It is noted that like all prudential regulators, APRA operates in a highly competitive labor market. Demand for risk management professionals is high and salary differentials with the private sector can be difficult to close. APRA is working to address this by reviewing its salary structure, and by looking at what can be done to improve its workplace practices and make APRA an employer of choice. While APRA is working to strengthen its recruitment and staff retention capabilities, APRA has been successful in recruiting from the private sector. There are recent examples where APRA has recruited risk management professionals with more than 15 years experience from the market.

## **B. Summary Assessment of Observance of the Insurance Core Principles**

### **General**

75. The assessment of observance with the Insurance Core Principles (ICP) was conducted as part of a Financial Sector Assessment Program. This assessment, which was carried out from November 30 to December 14, 2005, examines Australia's observance with the ICP issued by the International Association of Insurance Supervisors (IAIS) in October 2003.

### **Institutional framework and arrangements**

76. **Australia uses a functional approach to financial sector supervision commonly termed as the Twin-Peaks.** The Australian Prudential Regulation Authority (APRA) takes charge of prudential supervision, the Australian Securities and Investments Commission (ASIC) is responsible for investment market integrity and transparency, and the Reserve Bank of Australia has oversight of financial system stability. The federal financial intelligence unit (FIU), Australian Transaction Reports and Analysis Centre (AUSTRAC), has a dual role as both an FIU and anti-money laundering and countering the financing of terrorism (AML/CFT) regulator. The Treasurer has overall responsibility for all policy matters as well as the legal and regulatory framework for the financial sector. The Minister for Justice and Customs has overall responsibility for all policy matters as well as the legal and regulatory framework for AML/CFT.

77. Federal, state and territory legislation regulates the Australian insurance industry. In general, the State and Territory governments are not involved in the prudential regulation of insurance. However, they do regulate to varying degrees, certain mandated lines of insurance—workers compensation insurance, compulsory third party (CTP) insurance for motor vehicles and home builders warranty. In some states, the mandated insurance cannot be undertaken by private insurers. For CTP in New South Wales and Queensland, insurers

must be authorized both by APRA and the Motor Accidents Authority or the Motor Accident Insurance Commission, respectively. In some jurisdictions, mandated insurance is operated only by government monopolies.

78. A number of professional bodies and self regulatory industry associations complement the regulatory regime in providing market discipline.

### **Main findings**

79. The insurance regulatory and supervisory regime demonstrates a high level of observance with the IAIS standards. Substantial reforms have been undertaken in recent years to facilitate market innovation and reflect international best practices. APRA and ASIC also continuously review and update their supervisory regimes.

### ***Conditions for effective insurance supervision***

80. Australia has sophisticated and progressive macroeconomic and legal frameworks. It adopts international accounting and auditing standards and the professional bodies exercise effective self-regulation. Its deep, liquid and well functioning financial markets facilitate effective asset-liability management by insurers.

### ***The supervisory system***

81. The functional approach to supervision provides clarity in the supervisory objectives of APRA and ASIC. In practice, there are overlaps and inherent tension between prudential supervision and conduct of business supervision. Coordination between the regulatory agencies is facilitated through MOU, a number of councils, committees and working groups at various levels. The Council of Financial Regulators (CFR) provides a high-level forum for co-operation and collaboration.

82. APRA is responsible for the general administration of the insurance legislation. Financial sector policy formulation and reforms are the responsibilities of the Treasury. In practice, APRA has substantial input into legislative initiatives that impact on its roles and responsibilities. Frequently, such reforms are initiated by APRA. The passage of legislation has to be accommodated within the Government's overall policy program.

83. APRA has wide powers to establish prudential standards within the parameters of the legislative framework. ASIC has no rule making powers and it interprets the laws through issuance of guidelines and preferred practices. There is scope for reviewing the extent of the Treasurer's involvement in operational decisions of APRA and ASIC. Such involvement has implications for the operational independence of APRA and ASIC. While there is no evidence of Government interference in APRA's operations, the Treasurer has a power of direction over the policies APRA should follow and the priorities it should pursue. Under the APRA Act, the Treasurer must not give direction regarding individual cases. In this regard, the insurance legislation should be amended to conform to the APRA Act by removing the

Treasurer's power to give direction on institution-specific issues. To better reflect international best practice, the circumstances under which the Treasurer may give directions to APRA should also be clearly spelt out.

84. In general, APRA has adequate powers and financial resources and its staff have established credibility with the industry. APRA staff is assured of legal protection against lawsuits for actions taken in good faith while discharging their duties. The current financing arrangements do not undermine APRA's autonomy or independence. There are strong safeguards to protect confidential information.

85. APRA is subject to both external and internal governance requirements. APRA Members are appointed for a minimum term but there is no requirement to publicly disclose the reasons for removing an APRA member from office. APRA has instituted a risk-based supervisory approach supported by rigorous internal documentation and procedures to ensure consistency and accountability. It has a specialized Enforcement Unit reporting to an empowered Enforcement Committee. Supervisory decisions and activities are transparent and subject to judicial and administrative reviews. APRA publishes its role, supervisory activities and decisions as well as market analysis on its website.

86. APRA has also entered into a number of MOUs with other domestic and overseas supervisors. APRA cooperates fully with its overseas counterparts, with exchanges of information extending beyond home/host supervisory issues to broader issues of prudential policy development.

### *The supervised entities*

87. APRA has limited power to deal with unauthorized persons carrying on general insurance if they ignore APRA's orders. Timely prosecution of such persons is determined by the Director of Public Prosecutions.

88. Direct Offshore Foreign Insurers (DOFIs,) which provide general insurance in Australia without a physical presence, and Discretionary Mutual Funds (DMFs), are neither licensed nor subject to prudential supervision by APRA. DOFIs are required to hold an Australian Financial Services License (AFSL) from ASIC, however, and must disclose that they are not APRA-authorized when dealing with retail customers. DMFs are not subject to insurance regulation because the provider has the discretion whether to meet the costs of an "insured" event. While there is no evidence that discretionary mutual funds have chosen the discretionary structure simply to avoid insurance regulation, the potential for abuse could not be precluded.

89. The Government commissioned a review of the appropriate regulation of DMFs and DOFIs in September 2003 (Potts Review). (That review reported that DOFIs and DMFs accounted for approximately 2.5 percent and 0.5 percent of the Australian insurance market; the domestic insurance industry asserts that market share of DOFIs has since increased.) The Government has agreed to implement a recommendation of the Potts Review that in the

absence of a finding by APRA that there is no contingent risk to be met by additional undefined members' contributions, DMFs may only offer cover as a contract of insurance and will be regulated under the Insurance Act (IA).

90. APRA formalized the fitness and probity framework for the all APRA-regulated entities including life and general insurers in March 2006. New and harmonized “fit and proper” standards were issued, aimed at establishing minimum benchmarks for acceptable practice in the appointment of Board directors, senior management, and certain auditors and actuaries. APRA should be given the legal power to conduct cross-border supervision of insurance activities carried out by subsidiaries of insurers domiciled in Australia.

91. Assessment of insurers' corporate governance and internal controls is a routine component of APRA's on-site prudential review. To formalize what has become accepted as good corporate governance practices, APRA issued harmonized prudential standards on governance for all its regulated entities (except for superannuation trustees, who are covered by separate legislation) in May 2006. APRA has released draft prudential standards on risk management, which are under consultation.

### ***Ongoing supervision***

92. APRA prioritizes its ongoing supervision according to its PAIRS which translates to a supervisory stance under its SOARS. These two key tools ensure that risks are being assessed consistently across APRA and that proportionate prudential interventions are being taken. Although the framework for consolidated supervision of insurance is still in progress, all the financial groups in Australia are under supervision by APRA as the integrated prudential supervisor.

93. Minor preventive or corrective actions are normally addressed through moral suasion in the first instance and serious cases are escalated to the Enforcement Committee. While APRA is empowered under the Life Insurance Act to give a wide range of directions, its powers under the IA are subject to high thresholds and narrow triggers. Consequently, APRA is unable to deal with troubled general insurers in a timely and cost effective manner. APRA is not empowered to appoint an administrator to manage the affairs of a general insurer. A general insurer may frustrate regulatory interventions by APRA by voluntarily appointing an administrator. While the domestication of a general insurer's assets in Australia contributes to policyholder's protection, it does not accord policyholders priority of claim above other unsecured creditors in the event of winding up. Furthermore, there is no restriction on encumbrance of insurers' assets although pledged assets would result in higher capital requirements and would not qualify as “assets in Australia.”

### ***Prudential requirements***

94. APRA adopts the same on-site prudential review processes including insurance and investments activities for life and general insurers. While there are explicit risk management

standards for general insurance, life insurers are implicitly required to adopt effective risk management through their compliance with the solvency and capital adequacy standards.

95. Prudential principles for valuation of insurance liabilities for life and general insurance, both based on actuarial valuations that incorporate risk margin requirements, have been issued by either the Life Insurance Actuarial Standards Board or APRA. The capital adequacy regime in place for general insurance is prudent and comprehensive and will be extended to apply at the group level. The capital adequacy regimes for life insurance have worked well and APRA plans to harmonize, as far as practicable, the capital regime of life companies with that of banks and general insurers.

### ***Markets and consumers***

96. ASIC's supervision of the professional conduct of insurers and intermediaries is robust. Its supervision is complemented by codes of practice by industry bodies, independent complaint resolution scheme and Insurance Ombudsman Service. ASIC has also embarked on a Consumer Education Strategy. Considerations should be given to explicit regulatory measures to encourage the industry to adopt effective practices to combat insurance frauds.

### ***AML/CFT***

97. ***The Australian Transaction Reports and Analysis Centre (AUSTRAC)*** supervises insurers and intermediaries only in relation to their AML/CFT obligations. A draft exposure Bill was being prepared to bring Australia's AML/CFT regime in line with the FATF recommendations.

Table 3. Recommended Action Plan to Improve Observance of the Insurance Core Principles

Insurance Core Principles (ICP)	Recommended Action
The Supervisory System (ICP2, 3, 4 and 5)	<ul style="list-style-type: none"> <li>• In the absence of policymaking powers for ASIC, effective mechanisms should be in place to ensure that their policy inputs are addressed appropriately and in a timely manner.</li> <li>• The circumstances under which the Treasurer may give directions to APRA should be clearly spelt out.</li> <li>• Considerations should be given for a) public disclosure of the reasons for the removal of APRA Members; and b) APRA to consult or notify ASIC in taking any action on an insurer's license, where appropriate.</li> </ul>
The Supervised Entities (ICP6 , 7, 8, 9 and 10)	<ul style="list-style-type: none"> <li>• Implement the recommendations of the Potts Review on the regulatory status and scope for DOFIs and DMFs, as appropriate.</li> <li>• Consideration should be given to reviewing the requirement that APRA can only refuse registration of a life insurer with the approval of the Treasurer.</li> <li>• APRA should be given explicit powers for cross-border supervision of insurance activities carried out by</li> </ul>

Insurance Core Principles (ICP)	Recommended Action
	subsidiaries of insurers domiciled in Australia.
Ongoing Supervision (ICP11, 12, 13, 14, 15,16,17)	<ul style="list-style-type: none"> <li>To empower APRA to deal with troubled institutions in a timely and cost-effective manner. In this regard, considerations should be given to expedite the on-going review on harmonizing the powers of the APRA across the banking, life insurance and general insurance industries.</li> </ul>
Markets and Consumers (ICP24, 25,26, 27)	<ul style="list-style-type: none"> <li>To assist the industry in combating fraud more effectively, consideration should be given to: a) making claims fraud a punishable offence; b) requiring insurers to report fraud promptly; and c) promoting effective mechanisms for exchange of information between insurers with respect to fraud and those committing frauds (e.g. industry databases).</li> </ul>
AML/CFT (ICP28)	<ul style="list-style-type: none"> <li>To update its legislative framework for the AML/CFT regime in line with FATF standards and enhance clarity on the regulatory scope of the various regulatory agencies in AMF/CFT supervision.</li> </ul>

### **Authorities' response**

98. The authorities appreciate the IMF's considered views and recommendations contained in the assessment, which will be taken into account in developing the policy agenda for further insurance reforms.

### ***Supervisory authority***

99. In addition to APRA having the power to make Prudential Standards, APRA and ASIC provide valuable input into the policy and legislative process. However, it has to be recognized that the development and passage of legislation is subject to constraints imposed by the Government's overall policy program and the priorities accorded particular policy agendas. Accordingly, it is not possible to give any guarantee about the timing of adopting proposals put forward by APRA and ASIC.

100. It is recognized that to achieve high quality outcomes in prudential regulation it is important to have regulators with operational independence from government. However, it is also important that governance and accountability arrangements operate in such a way that regulators follow the policy intention of the parliament when implementing legislation.

101. The authorities consider that the power of the Treasurer to issue directions to APRA on policies and priorities (but not particular cases) strikes an appropriate balance between accountability and transparency. The conditions attached to this power, such as discussing the proposed direction with the APRA Chair and tabling the direction in parliament, provide a substantial check on its use, such that a direction would only be considered as a last resort. To date the Treasurer has not given APRA any directions under this power.

102. As part of a government wide review of statutory authorities, the Treasurer has agreed to move APRA's financial framework to the Financial Management and Accountability Act (FMA Act) from the current Commonwealth Authorities and Companies Act (CAC Act). The Treasurer considers prudential regulation to be a core function of government, and the FMA Act is the financial framework that most appropriately applies to agencies delivering those functions. The CAC Act is most applicable to government entities that undertake commercial operations.

103. The Government does not consider that this change will materially affect APRA's operational independence or funding. It is APRA's enabling legislation (the *Australian Prudential Regulation Authority Act 1998*) that establishes the required level of operational independence necessary to exercise statutory powers objectively. Further, the Government has used its powers to exempt APRA from a small number of conditions under the FMA Act that may affect its ability to fulfill its duties efficiently and effectively. As a result, the change to the FMA Act will not affect how APRA is funded or reduce its autonomy in deciding how it spends its funding and organizes itself (including its ability to set terms and conditions of its staff) to meet its statutory obligations.

104. In general, the Australian Government notes that its overall approach to fiscal policy over the last decade, in which all public sector spending is subject to robust discipline, has served Australia well, ensuring adequate funding for government services and agencies while producing a degree of sustained fiscal responsibility unmatched by many other OECD economies.

105. The Treasury does not have any involvement in the operational decisions of APRA or ASIC. Currently, the Treasurer's agreement must be sought before certain administrative actions or decisions are taken under the Insurance Act and the Life Insurance Act. The Treasurer's agreement for APRA decisions was based on the need to ensure that APRA was able to act in a timely manner to protect the interests of depositors and/or policyholders, while ensuring that there was review of those administrative decisions to protect persons affected. The Government agreed to remove the Treasurer's involvement in operational decisions, other than in cases where broader policy issues were involved, as part of its response to the HIH Royal Commission.

106. The Financial Sector (Shareholdings) Act which imposes controls on the ownership of financial entities is not administered by APRA as it is not an Act related to prudential supervision; however, prudential aspects are taken into account when considering applications for changes in ownership. In making decisions under the Act, the Treasurer takes account of APRA's advice. In certain instances, determined by monetary thresholds, the Treasurer has delegated his powers under the Financial Sector (Shareholdings) Act to senior APRA staff.

***Licensing***

107. Australia's licensing regime was substantially revised in 2001, and in 2002 all existing insurers were subjected to a rigorous re-licensing process. As a consequence, we consider that Australia has demonstrated that it has in place a robust, well-tested licensing regime to ensure that only well-resourced and prudentially sound insurance companies are licensed.

108. While it is acknowledged that DMFs and DOFIs are not prudentially supervised by APRA at this time, they are required to comply with AFSL license requirements. In view of the relatively small market share held by DMFs and DOFIs, we consider undue emphasis has been placed on the deficiencies identified and does not have sufficient regard to Australia's otherwise robust licensing framework. Neither does it recognize the Government's agreement to implement the key recommendations of the Potts Review.

***Supervised entities***

109. Assessment of insurers' internal controls is a routine component of APRA's on-site prudential review. APRA released its final prudential standard in February 2006. This prudential standard will be effective from October 1, 2006.

***Enforcement or sanctions***

110. The Government is currently reviewing the application of merits review to APRA decisions following a recommendation of the HIH Royal Commission and, more recently, a recommendation of the Taskforce on Reducing the Regulatory Burden on Business. The review will take into consideration the need for APRA to be able to take timely decisions where they are necessary to protect the interests of depositors and/or other policyholders. The review will also seek to balance the objective of timeliness with the need to ensure that persons affected by decisions are treated fairly.

111. Merits review is a key element of Australia's system of administrative review and, where appropriate, offers the potential for a cost effective and relatively timely review of an administrative decision. In the absence of the availability of merits review, persons affected by decisions would have recourse to judicial review by the courts.

**C. Summary Assessment of Implementation of the IOSCO Objectives and Principles of Securities Regulation**

**General**

112. The assessment of implementation of the IOSCO Objectives and Principles of Securities Regulation has been completed as part of a Financial Sector Assessment Program. It requires a review of the legal framework, both generally and as specifically related to the financial sector, and a detailed examination of the policies and practices of the institutions

responsible for securities regulation. The assessor received the full cooperation of his counterparts and received all information required.

113. The Australian Securities and Investments Commission (ASIC) is the market conduct regulator and also administers the provisions of company law for both listed and unlisted companies. The Australian Prudential Regulation Authority (APRA) is the agency responsible for the prudential supervision of banks, insurers and superannuation (pension) funds. The Reserve Bank of Australia (RBA) has responsibility for payment system oversight and overall financial stability. The federal financial intelligence unit (FIU), the Australian Transactions Reports and Analysis Centre (AUSTRAC), is also responsible for anti-money laundering and countering the financing of terrorism (AML/CFT) regulation, including on-site verification in financial institutions. Investigations are carried out by law enforcement agencies. As the AML/CFT regulator, AUSTRAC is responsible for ensuring compliance with current AML/CFT regulation. With respect to banking and other financial services issues the Treasury is responsible for the preparation of laws and regulation, and provides the Treasurer with policy advice. Legislation confers on the Treasurer certain responsibilities and the Treasurer may play a direct role in financial sector supervision through legal powers to issue directions to ASIC and APRA. With respect to AML/CFT, the Attorney-General's department is responsible for the preparation of laws and regulations and provides the Minister for Justice and Customs with policy advice.

114. In the last four years, regulators and the financial services industry have been implementing a substantial body of change mandated by the Financial Services Reform Act 2001. The introduction of compulsory superannuation (pension) contributions in 1992 has raised public interest in, and expectations of, securities markets, financial intermediaries and their regulators.

### **General preconditions for effective securities regulation**

115. Australia's securities markets and financial services providers have benefited from a domestic market characterized by sound macroeconomic policies and 14 years of uninterrupted growth. The financial sector is large and diversified. There is an appropriate body of commercial law and a respected judiciary. Australia adopted a modified version of International Financial Reporting Standards from January 2005 and the accounting profession is widely recognized as meeting a high international standard. The ASIC Act and Corporations Act and the cooperative arrangements operated by ASIC and APRA provide a sound basis for investigation and resolution of problems which may arise in markets or financial intermediaries.

### ***Principle-by-principle assessment***

116. Australia has a high overall level of compliance with the IOSCO Principles. The implementation by the regulators of a principles-based approach to regulation produces results that to a large extent meet the substantial body of detailed requirements that IOSCO has determined are needed to support the high level Principles.

***Principles related to the regulator***

117. Although currently operationally independent and appropriately funded, there are several issues concerning the independence of ASIC that should be resolved. And while consultation on new regulatory issues is extensive, the authorities and the private sector may wish to work together to improve even further the effectiveness of the consultation process.

***Principles related to compliance and enforcement***

118. Apart from the acknowledged weakness in the AML/CFT area,<sup>16</sup> where Australia legislation has failed to keep pace with the latest international developments (and where change is imminent), the powers given to ASIC under the law are generally comprehensive and ASIC's use of them is effective and credible.

***Principles related to information sharing and cooperation***

119. As a signatory to the IOSCO Multilateral MOU for the exchange of information, ASIC is committed to the highest standards in this area. Improvements to the timeliness of responding to requests for information from overseas regulators have already been identified as necessary by the authorities and change is imminent. Subject to review of the effectiveness of those changes, further improvement may prove desirable.

***Principles related to issuers***

120. The mix of corporate law and securities regulation appears to work well. ASIC is frequently called upon to facilitate takeover bids via use of its exemptive relief powers as well as, in cooperation with the Takeovers Panel, to prevent malpractice. It would be helpful to the market, if ASIC were to collate and publish the advice it has given in recent years on prospectus disclosure.

***Principles related to collective investment schemes***

121. Operators of collective investment schemes are subject to a comprehensive licensing system and to risk-based supervision. Some greater specificity than exists at the moment could usefully be introduced into the provisions governing the conduct of fund managers when trading on behalf of their clients. The on-going record of the industry as to unit pricing errors should be monitored closely to see whether the guidance recently published by ASIC and APRA has in fact minimized what has clearly been a major and longstanding problem.

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<sup>16</sup> Including the limited requirements under the 1998 FTR Act, the lack of powers of ASIC to impose comprehensive customer due diligence requirements on AFL holders)

***Principles related to market intermediaries***

122. Market intermediaries are subject to a comprehensive licensing system and risk-based supervision. Detailed regulations govern the firm/client relationship, supported by numerous Policy Statements in which ASIC provides guidance as to what it expects of financial intermediaries in their compliance with the regulations. ASIC's risk-based capital requirements, however, do not fully match international best practice.

***Principles related to secondary markets***

123. The Treasurer is responsible for licensing exchanges (market operators) and clearing and settlement facilities (CSFs); their rule changes must be submitted to him and are subject to a disapproval process. In practice day-to-day supervision of the exchanges and CSFs is carried out by ASIC, which also conducts an annual review of their compliance with their obligations. It may, therefore, be appropriate to review the original case for the Treasurer retaining these powers. ASIC's risk-based capital requirements for large exposures are not sufficient for an OTC market of considerable complexity and a turnover that substantially exceeds that of on-exchange markets.

Table 4. Recommended Action Plan to Improve Implementation of the IOSCO Objectives and Principles of Securities Regulation

Reference Principle	Recommended Action
Principles Relating to the Regulator (P 1–5)	<ul style="list-style-type: none"> <li>• Consider amending the ASIC Act to remove the power of the Treasurer to give directions and the power to instruct ASIC to carry out an investigation.</li> <li>• Consider reversing the growing dependence of ASIC on special purpose funding.</li> <li>• Consider whether it would be possible to fund a proportion of ASIC's work directly from a levy on the financial services industry.</li> <li>• Consider measures to improve the consultation process with the private sector.</li> </ul>
Principles of Self-Regulation (P 6–7)	
Principles for the Enforcement of Securities Regulation (P 8–10)	<ul style="list-style-type: none"> <li>• Consider removing the ambiguities in ASIC's use of evidence obtained from use of a search warrant.</li> <li>• ASIC should satisfy itself that it has adopted a comprehensive suite of tools for identifying and prioritizing risk in the surveillance function.</li> </ul>
Principles for Cooperation in Regulation (P 11–13)	<ul style="list-style-type: none"> <li>• Consider whether to give ASIC the authority to acquire information and transmit it directly to its counterparts overseas without first having to seek the Attorney General's permission.</li> </ul>
Principles for Issuers (P 14–16)	<ul style="list-style-type: none"> <li>• ASIC should issue, as planned, a comprehensive Policy Statement on guidance on prospectus disclosure.</li> </ul>
Principles for Collective Investment Schemes (P 17–20)	<ul style="list-style-type: none"> <li>• ASIC should issue a Policy Statement setting out its expectations of behavior by the responsible entity for a managed investment scheme in the areas of best execution, appropriate trading and timely allocation of trades, the prevention of churning, and underwriting</li> </ul>

	agreements.
Principles for Market Intermediaries (P 21–24)	<ul style="list-style-type: none"> <li>• Consider making reciprocal the constraints on ASIC when seeking to suspend or cancel the license of an APRA supervised entity.</li> <li>• ASIC should take steps to ensure that Australia’s risk-based capital requirements meet international norms.</li> </ul>
Principles for the Secondary Market (P 25–30)	<ul style="list-style-type: none"> <li>• Consider transferring the power to license market operators and clearing and settlement facilities to ASIC.</li> <li>• ASIC should take steps to ensure that Australia’s risk based capital requirements take proper account of the systemic risks of large exposures in OTC markets.</li> </ul>

### Authorities’ response

124. The Australian Government welcomes the IMF’s in-depth and comprehensive assessment of Australia’s securities regulation as part of Financial Sector Assessment Program. The strength of Australia’s regulatory system to protect consumers and ensure market integrity is emphasized by our high level of compliance with the IOSCO principles and objectives of securities regulation. We are already taking steps to implement some of the recommendations and are carefully considering the others to ensure optimal compliance with the IOSCO objectives and principles.

125. ASIC has complete independence in relation to the performance of its functions and exercise of its powers under the corporations legislation. We do not agree that the current structure is in any way susceptible to political interference. The limited, and rarely used, ability of the Treasurer to issue directions serves to ensure a balance between transparency and accountability. The Australian Government believes that the IOSCO principle of independence should focus on independence in the administration of the regulatory framework as it relates to specific cases, rather than requiring absolute strategic and financial autonomy from the executive arm of Government.

126. Notwithstanding a sustained disciplined overall approach to fiscal policy, in which all government agencies are subject to appropriate accountability in the annual budget process, the Australian Government has supported ASIC’s efforts through significant funding increases over recent years. The 2006-07 Budget increased ASIC funding by 25 per cent and includes additional initiatives to provide ASIC further certainty over its level of funding and to maintain its regulatory focus.

127. The Australian Government is committed to updating Australia’s anti-money laundering and counter-terrorist financing regime to reflect developments in financial crime and revised international standards from the Financial Action Task Force on Money Laundering (FATF). In keeping with its commitment the Australian Government is closely consulting with industry on a range of reforms with legislation expected to be introduced during 2006. The reforms when implemented will bring Australia into line with the FATF recommendations and will ensure that Australia’s financial sector, in meeting its obligations, remains robust and internationally competitive.

128. The Australian Government remains committed to sound regulation and is actively considering the recommendations contained within the report and will consider these in the context of developing future policy reforms in securities regulation.

#### **D. Summary Assessment of Observance of the CPSS Core Principles for Systemically Important Payment Systems**

129. The present document is the summary assessment of compliance of the Reserve Bank Information and Transfer System (RITS) with the CPSS Core Principles for Systemically Important Payment Systems. The assessment was conducted during a mission of the International Monetary Fund (IMF), which visited Sydney during November 30–December 14, 2005. The assessment was based on a comprehensive self-assessment, which has been prepared by the Reserve Bank of Australia (RBA), and detailed discussions with officials from relevant departments of the RBA, and with representatives of commercial banks and the Australian Payments Clearing Association. During the discussions, full information was received on the relevant laws, regulations, administrative policies and other technical and business aspects of RITS. The methodology used for the assessment followed the Guidance Note prepared in August 2001.

#### **Institutional and market structure**

130. The RBA operates under the *Reserve Bank Act 1959*, and most of its powers and functions in the payments system derive from that Act and the *Payment Systems (Regulation) Act 1998*. The power to determine the RBA's payments system policy resides with the Payments System Board (PSB), one of two boards of the RBA established by the Reserve Bank Act. The Governor of the RBA chairs the PSB. The PSB's mandate is to define the RBA's payments system policy in a way that will best contribute to controlling risk in the financial system as well as promoting efficiency and competition in the market for payment services, consistent with overall stability of the financial system. The PSB's policy is implemented by the RBA's Payments Policy Department.

131. The RBA owns and operates RITS, which is the only systemically important payment system that operates in Australia. It was launched as a real time gross settlement (RTGS) system in 1998. Transactions are processed and settled continuously and irrevocably in real-time. Final settlement of obligations between RITS participants is executed by entries to their exchange settlement account at the RBA. The bulk of large value interbank transfers are channeled through the SWIFT network<sup>17</sup> and a smaller number of transactions are transmitted via the proprietary network infrastructure.

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<sup>17</sup> The Australian Payments Clearing Association (APCA) administers the closed user group and contractual arrangements governing access. These arrangements are set out in the form of regulations referred to as the High Value Clearing System (HVCS).

132. RITS accepts payment instructions for interbank payments and for the settlement of interbank obligations arising from net clearing arrangements such as the net balances of interbank obligations arising from low-value payments transactions (on a next day basis) and those transactions arising from equities settlement in CHESS. RITS also settles the cash leg of the securities transactions that are settled on a real time gross basis in the Austraclear securities settlement system.

133. There is no minimum amount for a payment to be made through RITS, so that it handles time-critical low-value payments as well as large-value transfers. In 2005, RITS had 60 participants and 24,000 transactions on average were settled daily with an average daily value of AUD 150 billion. The flows of payments in RITS are concentrated in a relatively small number of banks, so that the four major banks have 67 percent of the volume and value of the total RTGS transactions. However, no bank acts as a major settlement agent for other banks. In total, agency arrangements account for less than one percent by value of transactions.

### **Effective payment systems oversight**

134. The RBA is the overseer of RITS and other payment and securities clearing and settlement systems operating in Australia. The payments system policy and oversight are the responsibility of the Payments System Board (PSB). In this context, the policies, procedures and practices of the PSB with regards to its oversight objective are open and transparent. They are published and widely circulated through a series of publications. The RBA has also established good cooperation with the banking sector and payment service providers.

### **Main findings—summary**

135. RITS is a sound and efficient payment system and complies with all CPSS Core Principles for Systemically Important Payment Systems. The legal basis for the system's operation is solid, its functionality is well-developed, its risk management to mitigate credit and liquidity risks is appropriate and its governance structure is effective and transparent. Recommendations are provided in order to further enhance the operations of RITS and its regulatory environment.

### ***Well-founded legal basis (CP-1)***

136. The current regulatory framework ensures that the design and operations of RITS have a solid legal basis as well as the validity and enforcement of payment transactions. In particular, all relevant laws and contractual arrangements between the different parties involved in RITS transactions are fully enforceable in the event of dispute. Final settlement is protected by legislation and cannot be challenged by a third party. In order to increase the legal certainty, an analysis of possible conflict of laws should be undertaken for RITS participants who are legally located outside the Australian jurisdiction.

***Understanding of the system's impact on risks (CP-II)***

137. The RBA uses a variety of channels to ensure that participants understand the features and characteristics of RITS, the ways their transactions are processed and the risks they incur by using the system. Furthermore, RITS Regulations identify the obligations and rights of the participants and RITS operator. When changes are made to the system, updated documents are circulated to all RITS participants.

***Procedures for the management of risks (CP-III)***

138. RITS has adequate risk measures and procedures in order to cope with credit and liquidity risks. It is an RTGS system with a queuing facility that settles in central bank money with finality and allows access to liquidity from the central bank. The RBA is also protected against credit risk as the cash account held by the central bank cannot be overdrawn. Liquidity is supplied by the RBA through intraday repurchase agreements and there is no limit to the provision of cash as long as the participants have access to eligible assets. The RBA has well-established and adequate procedures to handle crisis situations.

***Final settlement, inability to settle and settlement assets (CP-IV, V and VI)***

139. RITS is an RTGS system that settles in central bank money on a continuous basis during the day with intraday finality. As an RTGS system, RITS provides prompt final settlement during the day. Furthermore, the credit risk of settlement agents is considered negligible due to the lack of concentration of payments through a few direct participants. Operating times are clearly defined and monitored.

***Security and operational reliability (CP-VII)***

140. The RBA has proactive risk management procedures to ensure business continuity. RITS activity and performance is analysed and monitored throughout the processing day. Incidents and disruptions are logged adequately and rules and routines are in place for operational follow-up. The RBA has developed a contingency plan to cope with a wide range of technological problems. It deals with different levels of software and hardware defects and disruption in the various communication networks. The system is protected from failures of technical infrastructure, services and natural disasters through redundancy at the primary site and duplication of services at the remote back-up site. Various scenarios and staff roles are analysed, including but not exclusively the inability of the staff to reach the primary site, disruption in telecommunication and electrical power, and disruption in contact with important external parties. In the contingency plan, rules and procedures for decision-making are worked out and there is a clear division of responsibilities in the various emergency situations and follow-up. The RBA should consider arranging an external review of its current business continuity plan and update it when major changes are introduced to the system. The review should include the assessment of the hardware, software and internal procedures.

***Practical for the markets and efficient for the economy (CP-VIII)***

141. RITS appears to meet the key requirements for any RTGS system, of speed, cost, and practicality. The pricing policy recovers the system's operating costs through a flat fee. RITS is practical for the users in terms of intra-day liquidity management arrangements and queuing facilities. The authorities should consider a review of the pricing structure to ensure that it promotes efficiency and the effective functioning of the system. However, it is crucial that any new price structure still provides incentives to use RITS for the settlement of large value payments.

***Criteria for participation (CP-IX)***

142. The access rules for RITS are clear, publicly disclosed, fair and objective. The access criteria do not have a restrictive impact on competition. Rules relating to suspension, termination and resignation from RITS are also defined in the regulation.

***Governance of the system (CP-X)***

143. RITS is owned and operated by the RBA as a functional area. Its governance arrangements are effective, accountable, and transparent. In order to ensure RITS continues to meet participants' needs in terms of efficiency, practicality and service level, the RBA should consider re-establishing an advisory user group, representing different categories of RITS participants. This group could meet on a regular basis to discuss issues related to technical and business features of RITS.

**The responsibilities of the central bank**

***Disclosure of objectives (A)***

144. The RBA has a sound legal framework for its oversight activities in the area of payment and securities settlement systems. Its power in this field resides with the PSB, which uses various channels to inform the public on its role, policy and activities. The decisions taken by the PSB are regularly published in its Annual Report and media releases. The PSB determines the RBA's payments system policy and oversight tasks on the advice of the RBA's Payments Policy Department. Implementation of the PSB's policies, including in relation to oversight, is also the responsibility of Payments Policy Department. The RBA may wish to consider arrangements for dealing with potential conflicts arising out of its oversight and operational roles in the payments system.

***Oversight of own systems (B)***

145. At the departmental level, there is a clear separation between the staff managing the system and those responsible for supporting the PSB in carrying out its policy and oversight roles. A formal assessment of RITS against the Core Principles was carried out by the Payments Policy Department and the report was discussed by the PSB.

### ***Oversight of private sector systems (C)***

146. The PSB has the legal basis to oversee payment systems operated by the private sector. The preparation and implementation of the PSB's policy and oversight tasks are carried out by the Payments Policy Department. The procedures and methods used by this department to implement its oversight tasks could further be strengthened by developing formal methods and procedures, including regular monitoring and reporting and on-site inspections.

### ***Cooperation with other authorities (D)***

147. The RBA cooperates with other relevant authorities such as the prudential authority, securities regulator and competition authority. Separate Memoranda of Understanding are set up defining common interests, responsibilities, information sharing, notification and other arrangements intended to achieve the objectives of the respective authorities. The RBA participates actively in a number of international fora to promote sound and legally robust payment systems. For instance, the RBA was a member of the CPSS Task Force that drafted the Core Principles.

Table 5. Recommended Actions to Improve Observance of CPSS Core Principles and Central Bank Responsibilities in Applying the Core Principles for RITS

Reference principle	Recommended action
Legal foundation (CP-I)	<ul style="list-style-type: none"> <li>Require entities, located outside the Australian jurisdiction, that apply for participation in RITS either as a branch or on a remote basis to provide a legal opinion that analyzes possible conflict of laws and potential legal risk for RITS and its participants.</li> </ul>
Security and operational reliability, and contingency arrangements (CP-VII)	<ul style="list-style-type: none"> <li>Require security enhancement of the proprietary communication network to meet international standards with regards confidentiality, integrity and authenticity of the transmitted information and data.</li> <li>Consider an external review of the RBA's business continuity plan that would include the assessment of the hardware, software and internal procedures.</li> </ul>
Efficiency and practicality of the system (CP-VIII)	<ul style="list-style-type: none"> <li>Consider following up its studies of RITS costs and pricing structure by consulting RITS users. The RBA should consider a review of the pricing structure to ensure that it promotes efficient functioning of the system.</li> </ul>
Governance of the payment system (CP-X)	<ul style="list-style-type: none"> <li>Consider establishing a consultative framework with the users in order to ensure RITS continues to meet users' needs in terms of efficiency, practicality and service level. The RBA may wish to re-establish its advisory user groups, representing different categories of RITS participants to discuss issues related to technical and business features of RITS.</li> </ul>

Reference principle	Recommended action
Central Bank Responsibilities in Applying the CPSIPS	<ul style="list-style-type: none"> <li>• Consider whether current arrangements avoid potential conflicts of interest between the policy and oversight functions (that fall under the jurisdiction of the PSB) and the Bank's role as an operator of the RITS system.</li> <li>• Strengthen the implementation of the PSB's oversight responsibility by developing formal methods and procedures, including regular monitoring and reporting, on-site inspections of important payment systems and arranging regular meetings with payment systems providers and other stakeholders.</li> </ul>

### Authorities' response

148. The authorities are grateful to have had Australia's systemically important payment system, the Reserve Bank Information and Transfer System (RITS), reviewed by the IMF. The review was conducted professionally and cooperatively and the authorities found the process useful. The authorities concur with the IMF's assessment that RITS complies with all of the *Core Principles for Systemically Important Payment Systems* and that oversight arrangements comply with the responsibilities of the central bank in applying the *Core Principles*.

149. With regard to the specific recommendations arising from the assessment, an upgrade to the RITS user interface was well advanced at the time of the assessment and is due for implementation during 2006. This upgrade will bring confidentiality, integrity and authenticity of transmitted information up to best practice. Also during 2006, the Reserve Bank will finalize a review of pricing. In determining any changes to fees, the Bank will take into account cost recovery, system efficiency and appropriate incentives for participants, along with industry feedback on proposed changes. The Bank will continue to ensure that the appropriate delineations are maintained between the oversight functions carried out under the responsibility of the Payments System Board and operational payments functions. It will ensure that any conflicts of interest that may arise in the oversight process are properly addressed.

150. The Reserve Bank will give careful consideration to the IMF's recommendations in relation to legal risk from branch participation in RITS, external review of the RITS business continuity plan, and arrangements for consultation with RITS users. The Bank will also consider how best to perform its oversight function.

## APPENDIX I: STRESS TESTS

151. **Three types of stress tests were performed.** First, the five largest domestic banks ran a *macroeconomic stress scenario* over a three-year time period. Second, the same banks ran a series of *single factor stress tests* on interest rates. Third, APRA updated its *mortgage portfolio stress tests*, using data from two regional banks with heavy exposure to the mortgage market.
152. **The macroeconomic stress scenario focused on the particular challenges posed by the housing market and the offshore funding of the banks.** A three-year scenario was designed around key macroeconomic and financial variables (Table 6). It features a 30 percent decrease of house prices, a sharp increase in unemployment, and a decrease in consumer demand and, hence, GDP growth in year one. In year two, the recession continues but turns around in the second half of the year, while year three features a significant rebound of growth, and a renewed, but modest increase in housing prices. The scenario also envisages a change in sentiment towards Australian credit risk by offshore investors, leading to diminished access for the banks to offshore funding. This in turn leads to a 40 percent depreciation of the exchange rate and increased cost of funding.
153. **The single factor stress tests revolved around changes in the yield curve and volatility.** For both the banking and the trading books, the banks simulated: (i) a gradual 300 basis points (bps) steepening of the yield curve out to three years; (ii) a 200 bps upward parallel shift in the yield curve; and (iii) a 100 bps downward parallel shift in the yield curve. In addition, for the trading book only, the banks ran (iv) a 250 percent increase in volatility across the yield curve; and (v) a 75 percent decrease in volatility.
154. **The update of APRA's mortgage portfolio stress test was limited to two regional banks with heavy exposure to the more risky mortgage products.** These two banks both hold more low documentation (low-doc), large-size, and investor loans than the average Australian bank. Hence, they were seen as the most suitable candidates for a limited update of the original 2003 *mortgage portfolio stress tests*.
155. **The results of the stress tests did not expose any near-term stability issues.** Under the *macroeconomic stress test*, the large Australian banks exhibited considerable resilience. While their financial performance deteriorated in response to shocks to their mortgage portfolios and funding costs, the banks withstood the adverse macroeconomic scenario relatively well (Table 7). Moreover, the *single factor stress tests* suggested that the banks' exposure to interest rate shocks is limited and concentrated in the banking book. The banks generally do not take large positions in their trading books (Table 8). Finally, APRA's partial update of the *mortgage portfolio stress tests* indicated that both regional banks would remain above their regulatory minimum capital requirements in a stress scenario.
156. **Sensitivity analyses around the base scenario resulted in increased stress, but the system remained well able to deal with the stress.** Two analyses focused on more severe shocks to unemployment by means of a deeper or more prolonged recession. The third sensitivity analysis focused on an increased risk premium on offshore borrowing.

### **APRA's Mortgage Portfolio Stress Tests**

Against the backdrop of sharply rising house prices and concerns that housing credit growth might not be sustainable, APRA conducted a stress test (named the Panama Project) to gauge the resilience of the financial institutions to a substantial correction in the housing market in 2003.

The Panama Project covered 120 ADIs including Australian banks, building societies, and credit unions. The stress test scenario mapped a 30 percent fall in house prices to a substantial increase in default and loss rates. The results showed that all 120 institutions would continue to have positive capital under the imposed conditions. However, for 11 institutions, representing less than two percent of the banking assets, the capital ratio would fall below their regulatory minimum. APRA also applied the Panama stress scenario to Lenders' Mortgage Insurers (LMIs). The results showed that all LMIs would breach capital solvency requirements in the stress scenario and that many institutions would be insolvent.

Following these findings, APRA immediately reviewed the capital requirement regulations for LMIs and, among other things, introduced a substantial increase in the minimum capital requirements for mortgage insurers effective January 1, 2006. Under the new arrangement, the capital requirements against any given insured loan will depend on the loan-to-value ratio, the age of the loan, and whether the loan is standard or non-standard. For most loans, the capital charge will more than double.

For the FSAP stress testing exercise, APRA updated its mortgage portfolio stress tests. Two regional banks with relatively heavy and unique mortgage portfolios were selected to rerun the housing loan stress tests with more recent data. Both banks source many of their loans via mortgage brokers (over 80 percent in the case of one bank) and have embraced the low-doc loan market. One of the selected banks continues to be the most exposed to this product among the Australian banks. For funding, both banks rely heavily on securitization. Both banks have grown their housing loan portfolios by nearly 50 percent since 2003, and increased the shares of investment loans and large-sized loans on their books. In the updated stress test, the loss rates of the two banks remain relatively low. Although, the losses are larger than in the 2003 stress test, both banks remain above the regulatory minimum capital ratio.

## Stress Test Results

Guided by the Australian authorities, the five largest banks carried out stress tests, which consisted of a macroeconomic stress scenario with domestic origin, and single factor stress tests on interest rates and volatilities. The main results are as follows:

- **Under the macroeconomic stress scenario, the banks continue to be profitable, although their profitability decreases significantly compared to the baseline scenario.** On average, return on equity (RoE) falls from some 21 percent (baseline number) before the shock to 14 percent in the second year of the scenario.
- **These reductions stem mostly from an increase in provisions for bad debts and from volume and margin effects on net interest income.** In year two, provision for bad debt rise to an average 3.2 percent of capital (minimum across the banks 0.9 percent, maximum 8.1 percent), of which 0.6 percent is related to residential mortgages. The impact on the mortgage portfolio is limited for several reasons. First, most banks assume that consumers would default on other personal loans and credit cards first, while continuing to pay their mortgages. Hence, losses on these other categories of loans increase sharply. Second, most consumers have “prepaid” part of their mortgage debt by maintaining their monthly payments even when interest rates decreased. Hence, they have built up a buffer that they can draw upon without being considered in default.
- **Net interest income decreases by an average 1 percent of capital** (ranging from 0.5 to 3 percent across the banks). This loss of net interest income is primarily due to an adverse impact on the volume of lending. These effects are slightly offset by higher mismatch income, and, to a limited extent, higher margins, as banks seek to diminish the discount on mortgages and raise rates from small business lending and for large corporate loans.
- **On the funding side the banks experience a significant cost increase when they do not alter their funding mix**, ranging from 3.6 percent of total liability to 6.6 percent of total liability on average in year three. Most banks, however, claim that they would respond by changing their funding mix from long-term to short-term funding, and away from offshore funding and into retail deposits. If successful, this would considerably modify the increase in funding costs.
- **The stress tests also revealed offsetting effects of the exchange rate movement**, which strengthened the balance sheets of corporates in exports or import-substituting business lines. Such offsets seem a realistic feature of a small open economy like Australia.
- **The single factor stress tests suggested that the interest rate risk is limited.** The risk is concentrated in the banking book and is most pronounced for the yield curve steepening. In this case, the banks experience an average loss equivalent to 1.8 percent of tier 1 capital, which is primarily due to valuation effects. The parallel upward shift results in an average loss of 1.0 percent of capital, while the parallel downward shift yields a small profit equivalent to 0.5 percent of capital. The volatility shocks on the trading book yield very small losses because the banks hold only small positions.
- **Sensitivity analyses on unemployment and offshore funding around the base scenario resulted in increased stress, but the system remained well able to deal with the stress.** A deeper or more prolonged recession could lead to a tripling of unemployment to 12 percent (instead of a doubling to 9 percent under the base scenario). This would lead to a doubling of the default rate on mortgages compared to the base scenario, with bad and doubtful mortgage loans peaking at around 0.9 percent of tier 1 capital in year 2. Increased offshore funding costs will likely lead to increased demand for domestic funding, hence putting pressure on domestic funding costs as well. Even so, arbitrage opportunities across the yield curve are likely to limit the increase in the banks’ long-term funding costs, as long as the cash rate remains unchanged. By way of illustration, an increase in the banks’ funding costs of 10 basis points would reduce overall profits by around 1 percent.
- **Overall, the results are consistent with risk managers’ and supervisors’ views of the main strength and vulnerabilities in Australian banks.**

Table 6. Macroeconomic Stress Scenario

	Q4 2006	Q4 2007	Q4 2008
Real GDP growth (%)	-1	2	4
Nominal TWI (%change)	-40	10	7
House Price Growth (%)	-30	0	2½
Equity Price Growth (%)	-27	8	10
Consumption Growth (%)	-2½	0	2¼
Unemployment Rate (5% 2005)	7	9	8¾
Nominal Cash Rate (5.5% 2005)	5½	5½	5½

Table 7. Australia: Results under Stress Scenario (Five Major Banks)  
(Level of profit, bad/doubtful debts and net interest income as percent of Tier 1 capital) 1/

	Q4 2005			Q4 2006			Q4 2007			Q4 2008		
	Ave	Max	Min	Ave	Max	Min	Ave	Max	Min	Ave	Max	Min
Profit Before Tax 2/	30.6	35.7	22.3	18.0	27.8	7.4	16.9	24.4	7.6	23.2	29.7	17.8
Bad and Doubtful debts	1.1	1.4	0.6	2.6	5.5	0.9	3.2	8.1	0.9	2.3	7.8	0.3
-on residential mortgage	0.1	0.3	0.0	0.6	1.7	0.1	0.6	1.3	-0.1	0.4	1.3	0.0
-on corporate lending	0.2	0.3	0.1	0.8	2.3	0.4	1.4	3.1	0.3	0.5	2.1	0.0
-on other lending	1.0	1.3	0.5	1.1	2.2	0.4	1.3	4.1	0.2	1.4	4.3	0.2
Return On Equity (%) 3/	20.7	23.8	16.4	16.8	25.7	9.8	13.7	22.4	3.9	17.7	26.4	9.2
Net Interest Income	9.1	11.1	6.4	8.2	10.9	5.0	8.1	10.4	5.9	8.5	10.7	6.0
Total Tier One Capital (% of risk-weighted assets)	7.4	8.7	6.6	7.4	8.9	6.6	7.3	8.4	6.4	7.1	8.4	6.0

Source: Individual Banks and IMF staff calculations.

1/ Although the impact is reported as a percentage of tier 1 capital, this does not mean these numbers represent actual changes in capital. As the banks feature substantial profitability in the base scenario, moderate losses will likely be absorbed through lower profits.

2/ December quarter, annualized

3/ When considering a more narrow measure of equity that approximates the equity held against the banks' Australian book, the decline of RoE is somewhat less pronounced.

Table 8. Single Factor Stress Testing Results  
(Impact as percent of tier 1 capital) 1/

Scenario	Banking book 2/			Trading Book 3/		
	Average	Minimum	Maximum	Average	Minimum	Maximum
300 bps steepening	-1.8	-7.2	1.5	0.5	-1.1	3.2
200bps upward shift	-1.0	-3.6	1.9	0.2	-0.8	1.5
100bps downward shift	0.5	-1.1	3.6	-0.3	-0.6	-0.1
250 percent increase in volatility				0.1	0.0	0.1
75 percent decrease in volatility				0.0	-0.1	0.0

Source: Individual Banks and IMF staff calculations.

1/ Although the impact is reported as a percentage of tier 1 capital, this does not mean these numbers represent actual changes in capital. As the banks feature substantial profitability in the base scenario, moderate losses will likely be absorbed through lower profits.

2/ The banking book numbers represent changes in valuation of the portfolio and changes in net interest income.

3/ The trading book numbers represent changes in valuation, assuming a 10-day holding period.

APPENDIX II. Table 9. Australia: Selected Economic Indicators

Nominal GDP (2005): \$A 928 billion (US\$ 707 billion) GDP per capita (2005): US\$ 34,714	Quota (in millions): SDR 3,236 Population (2005): 20.4 million					
	2001	2002	2003	2004	2005	2006 Proj.
Output and demand (percent change)						
Real GDP	2.2	4.1	3.1	3.5	2.5	3.1
Total domestic demand	1.0	6.4	5.7	5.6	4.2	4.0
Private consumption	3.0	3.8	3.8	5.8	3.0	3.2
Total investment	-3.3	15.7	8.9	7.8	7.4	7.5
Business	-3.4	14.8	14.2	12.1	15.9	11.9
Dwelling	-11.7	25.2	5.9	3.1	-3.2	-3.7
Exports of goods and services	2.2	0.0	-2.2	4.0	2.0	3.6
Imports of goods and services	-4.2	10.7	10.5	15.1	8.6	6.5
Inflation and unemployment (in percent)						
CPI inflation	4.4	3.0	2.8	2.3	2.7	3.2
Unemployment rate	6.8	6.4	6.1	5.5	5.1	5.0
Saving and investment (in percent of GDP)						
Gross national saving	19.9	20.0	20.4	19.6	20.3	21.0
General government saving	2.8	3.5	4.3	4.0	4.6	3.8
Private saving 1/	17.1	16.4	16.2	15.6	15.6	17.2
Gross capital formation	22.1	24.0	25.8	25.8	26.4	26.6
Fiscal indicators (in percent of GDP) 2/						
Receipts 3/	23.3	22.1	22.5	22.3	22.8	23.3
Payments 3/	22.5	22.2	21.6	21.4	21.3	21.7
Underlying balance 3/	0.9	-0.1	1.0	1.0	1.5	1.5
Net debt	6.2	5.2	3.8	2.8	1.3	-0.5
Money and credit (end of period)						
Interest rate (90-day bill, in percent) 4/	4.2	4.8	5.5	5.4	5.6	6.0
Treasury bond yield (10-year, in percent) 4/	6.0	5.2	5.6	5.3	5.2	5.8
M3 (percent change) 4/	14.7	7.1	11.9	9.6	8.1	10.9
Private domestic credit (percent change) 4/	9.8	12.5	12.4	14.1	13.5	14.3
Balance of payments (in percent of GDP)						
Current account	-2.1	-3.9	-5.6	-6.3	-6.0	-5.6
of which: Trade balance	0.5	-1.3	-2.9	-2.8	-1.9	-1.5
Foreign direct investment, net	-1.0	2.3	-1.1	3.8	0.9	...
Terms of trade (percent change)	1.4	2.0	3.2	9.7	12.1	6.5
External assets and liabilities (in percent of GDP)						
Net external liabilities	48.3	53.2	55.6	58.3	60.1	61.8
Net external debt	43.8	46.6	45.7	48.5	50.8	51.3
Gross official reserves 4/	5.2	5.0	5.5	5.5	6.3	6.8
Exchange rate (period average)						
US\$/A\$ 4/	0.509	0.566	0.750	0.769	0.743	0.740
Trade-weighted index 4/	50.2	51.7	63.0	62.8	63.7	62.0
Real effective exchange rate 5/	97.2	101.4	122.4	121.8	125.2	122.2

Sources: Data provided by the Australian authorities; and Fund staff estimates and projections.

1/ Includes public trading enterprises.

2/ Fiscal year ending June 30, Commonwealth Budget.

3/ Excludes asset sales and other one-off factors; cash basis.

4/ Data for 2006 are for latest available month.

5/ IMF, Information Notice System index (1990 = 100). Data for 2006 are for latest available month.

Table 10. Australia: Financial System Structure 1991-2005

	December 1991		December 2001		December 2003		December 2005	
	Number (AUD billion)	Percent of total assets						
Authorised deposit-taking institutions	388	51.8	872	46.5	247	52.3	222	51.4
Banks	358	47.7	835	44.5	53	50.4	53	49.6 1/, 2/
Credit unions	10	1.3	24	1.3	180	1.3	155	1.2
Building societies	21	2.8	12	0.7	14	0.6	14	0.6
Registered financial corporations	93	12.4	174	9.3	120	7.0	119	5.7
Money market corporations	47	6.2	86	4.6	37	3.7	25	2.6
Finance companies and general financiers	46	6.1	88	4.7	83	3.3	94	3.1
Life offices and superannuation funds	187	25.0	476	25.4	11,073	22.2	8,458	23.9
Life insurance offices	94	12.5	179	9.5	32	7.3	37	6.7 3/
Superannuation funds	94	12.5	298	15.9	11,041	14.9	8,421	17.3 3/
Other managed funds	44	5.9	173	9.2	192	8.4	27	8.8
Public unit trusts	23	3.0	126	6.7	149	6.5	203	6.9 3/
Cash management trusts	6	0.8	34	1.8	30	1.3	38	1.3 3/
Common funds	7	0.9	8	0.4	9	0.4	10	0.3 3/
Friendly societies	9	1.1	6	0.3	34	0.2	27	0.2 3/
Other financial institutions	37	5.0	180	9.6	143	10.1	133	10.2
General insurance offices	28	3.8	82	4.4	79	3.9	133	3.6 4/
Securitization vehicles	9	1.2	97	5.2	64	6.2	194	6.6
Total financial system	750		1,875	100.0	11,583	100.0	8,959	100.0

Sources: ABS, APRA

1/ Asset values refer only to the domestic banking operations of the banks. The number of banks refers to all banks operating in Australia, not the number of Australian-owned banks.

2/ In December 2005, the consolidated total assets of Australian-owned banks was \$A 1,599bn. In December 2003 the value was \$A 1,346bn.

3/ Consolidated assets.

4/ September 2005 data.

Table 11 Australia: Financial Soundness Indicators for the Banking Sector 1/

	2000	2001	2002	2003	2004		2005			
					Total	BIG (2/)	Others	Total	BIG (2/)	Others
Banking sector					(in percent, unless otherwise stated)					
<i>Capital adequacy</i>										
Regulatory capital as percent of risk-weighted assets *	9.7	10.4	9.6	10.0	10.4	10.1	13.7	10.3	10.1	12.1
Regulatory Tier I capital to risk-weighted assets *	6.9	7.6	7.5	7.4	7.5	7.2	10.5	7.5	7.3	9.7
Capital as percent of assets 3/ *			6.1	6.3	6.7	6.6	7.5	6.8	6.8	6.4
<i>Asset composition and quality</i>										
<i>Sectoral distribution of bank credit to the private sector (as percent of total bank credit to private sector) *</i>										
Housing loans 4/	53.0	54.3	52.4	54.7	54.8	60.8	35.8	54.0	60.4	35.2
of which: owner-occupiers 4/	36.9	37.9	36.0	36.3	36.0	39.8	23.9	35.8	39.9	23.8
investors 4/	16.1	16.4	16.4	18.4	18.8	21.0	11.9	18.2	20.5	11.4
Other personal loans 4/	9.1	8.9	9.3	9.4	8.6	9.5	5.9	8.7	9.6	6.3
of which: fixed loans 4/	4.2	3.7	4.0	3.7	3.6	4.0	2.3	3.8	4.2	2.6
revolving loans 4/	5.0	5.2	5.3	5.6	5.0	5.5	3.6	4.9	5.4	3.7
Commercial loans 4/	37.9	36.8	38.3	35.9	36.6	29.7	58.3	37.3	30.0	58.6
of which: financial intermediaries 4/	5.5	6.6	6.8	6.1	8.0	3.9	21.1	7.9	3.1	22.0
non-financial sector 4/	32.4	30.3	31.6	29.8	28.5	25.8	37.2	29.3	26.9	36.5
<i>Geographical distribution of bank credit (as percent of total bank credit) *</i>										
Australia 5/				70.0	68.1	64.6	94.0	69.9	66.8	92.5
Other Asia-Pacific, developed countries 5/				14.2	16.8	18.9	0.9	16.5	18.6	1.0
Other Asia-Pacific, emerging markets and developing countries 5/				0.7	0.7	0.8	0.0	0.8	1.0	0.1
Other developed countries 5/				14.7	14.1	15.4	4.4	12.5	13.4	5.7
Emerging markets and developing countries 5/				0.3	0.3	0.2	0.7	0.3	0.3	0.8
<i>Asset quality</i>										
Impaired assets as percent of total assets 6/ 7/ *	0.49	0.55	0.39	0.29	0.22	0.23	0.17	0.19	0.19	0.18
Specific + general provisions as percent of impaired assets	144.9	126.0	135.7	167.9	211.6	211.9	206.8	234.5	241.6	164.0
Impaired assets net of specific provisions as percent of Tier 1 capital	5.8	6.7	5.2	3.7	2.6	2.7	1.3	2.3	2.3	2.2
Resident assets denominated in foreign currency as percent of total resident assets	3.9	3.9	3.4	2.9	3.7	3.0	5.8	4.0	3.4	5.6
Large exposures as percent of tier I capital *				111.7	89.0	83.1	143.1	111.4	102.4	193.3
<i>Earnings and profitability</i>										
Gross profits as percent of average assets (ROAA) * 8/	1.5	1.3	1.4	1.6	1.5	1.5	2.3	1.8	1.8	2.6
Gross profits as percent of average equity capital (ROAE) * 8/	22.8	20.1	20.2	24.2	22.8	22.1	29.2	25.5	24.5	31.8

	2000		2001		2002		2003		2004		2005		
	Total	BIG (2/)	Others										
Net interest margin (net interest income as percent of interest bearing assets) * 8/	2.9	2.8	2.7	2.4	2.7	2.4	2.7	2.7	2.8	2.5	2.7	2.7	2.5
Gross income as percent of average assets 8/	3.7	3.8	4.0	4.3	4.0	4.3	4.3	4.0	4.0	8.6	4.6	4.4	8.8
Net interest income as percent of gross income 8/	53.0	52.2	50.0	46.0	50.0	46.0	44.1	49.0	49.0	19.1	41.1	45.9	17.9
Non-interest income as percent of gross income 8/	47.0	47.8	50.0	54.0	50.0	54.0	55.9	51.0	51.0	80.9	58.9	54.1	82.1
Trading income as a percent of gross income * 8/			5.4	4.4	5.4	4.4	5.1	4.0	4.0	11.0	4.5	3.5	9.4
Non-interest expenses as percent of gross income * 8/	58.2	56.9	60.2	59.1	60.2	59.1	60.6	58.5	58.5	72.7	58.5	56.4	70.0
Personnel expenses as percent of non-interest expenses * 8/			54.7	40.4	54.7	40.4	38.3	38.4	37.7	37.7	39.0	38.2	42.5
Spread between reference loan and deposit rates 8/ *			2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.1	3.2	2.9	3.0
Spread between highest and lowest interbank rate 9/ *			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Liquidity</i>													
Liquid assets as percent of total assets *			8.2	6.8	8.2	6.8	6.5	6.4	6.4	7.6	6.0	5.4	11.1
Liquid assets as percent of short-term liabilities *			27.1	29.6	27.1	29.6	18.8	17.3	17.3	25.4	28.6	27.1	34.1
Foreign currency liabilities as percent of total liabilities *	21.0	21.2	18.0	16.6	18.0	16.6	19.1	19.1	19.1	19.2	19.2	19.5	18.6
Deposits as percent of assets			53.1	52.7	53.1	52.7	52.3	52.5	52.5	49.2	50.6	51.1	45.6
Loans as percent of deposits *			119.1	122.7	119.1	122.7	128.5	129.0	129.0	122.6	134.2	135.3	121.8
<i>Sensitivity to market risk</i>													
Off-balance sheet operations as percent of assets of which: interest rate contract 8/			161.0	193.2	161.0	193.2	203.6	216.1	216.1	63.7	217.2	232.0	71.0
Foreign exchange contracts 8/			125.2	130.7	125.2	130.7	119.1	127.0	127.0	23.1	119.6	129.8	19.4
credit derivatives 8/			2.5	2.7	2.5	2.7	3.5	3.7	3.7	0.2	3.8	4.1	0.3
Gross asset position in derivatives as a percentage of tier I capital *			97.6	117.9	97.6	117.9	83.4	83.2	83.2	85.6	83.3	80.3	109.9
Gross liability position in derivatives as a percentage of tier I capital *			96.8	125.1	96.8	125.1	84.1	85.2	85.2	73.7	56.2	51.4	100.0

Sources : RBA, APRA

1/ Data on a consolidated basis, unless otherwise stated. December data unless otherwise stated.

2/ Covers the five main banking groups (ANZ, CBA, NAB, WBC, STG).

3/ Simple ratio of capital to total assets, without risk weighting

4/ Latest data is for February 2006

5/ 2005 data is for June

6/ Assets on which payments are in arrears by more than 90 days or otherwise doubtful and the amount due is not well covered by value of collateral. Excludes nonperforming assets in arrears that are well covered by collateral.

7/ 2000 and 2001 data use a different definition of total assets than the IMF FSI compilation guide.

8/ 2005 data is for September.

9/ In practice, Australian banks charge each other the cash rate in the domestic interbank market. As such there is no difference between the highest and lowest rate.

\* Core and encouraged set of indicators

Table 12. Australia: Financial Soundness Indicators of the Non-banking Sectors 1/

	2000	2001	2002	2003	2004	2005
	(in percent, unless otherwise stated)					
<b>Insurance sector</b>						
Coverage ratio	n.a.	n.a.	2.2	2.2	2.2	n.a.
Profitability (return on average equity)						
Life 2/	15.4	15.8	13.1	6.6	16.0	n.a.
Non-life	-6.6	8.9	4.5	15.0	22.1	15.5
<b>Corporate sector</b>						
Total debt as a percentage of equity *	91.6	84.4	88.3	88.3	89.8	109.5 3/
<b>Household sector</b>						
Debt as a percentage of GDP *	59.4	64.2	70.3	79.0	86.2	90.5
Debt service burden as a percentage of total disposable income *	7.6	7.1	7.5	8.8	9.9	10.7
Financial savings ratio as a percentage of GDP	1.7	1.1	-0.4	-1.8	-1.8	-1.6
Savings rate	2.8	1.8	-0.7	-3.1	-3.1	-2.9
<b>Real estate sector</b>						
House price inflation *						
Small and medium-sized houses	9.2	13.5	20.2	18.1	7.3	1.1
Apartments	9.5	13.6	18.4	14.4	4.9	-1.6

1/ Data is as at December, unless otherwise stated

2/ Data for 2001 is at September

3/ The jump in 2005 was primarily caused by two large corporate transactions

\* Encouraged set of indicators