

Risk Management

The Reserve Bank seeks to carefully manage risks related to its role and responsibilities. The Risk Management Committee, which is chaired by the Deputy Governor, oversees the Bank's risk management processes and framework, key to which is maintaining the Bank's active risk management culture.

Objectives and Governance Structure

Risk management is integral to all aspects of the Reserve Bank's activities and is the responsibility of all staff. Managers have a particular responsibility to evaluate their risk environment, put in place appropriate controls and ensure that these controls are well developed and implemented effectively. The Bank identifies, assesses and manages risk at both an enterprise ('top-down') and business ('bottom-up') level, a process that is subject to ongoing review. These risks are managed to a level that is consistent with the Bank's risk appetite through processes that emphasise the importance of integrity, intelligent inquiry, maintaining high-quality staff and public accountability. The development and maintenance of an active risk management culture that acknowledges the need for careful analysis and management of risk in all business processes is an important objective of this framework.

Oversight of the Reserve Bank's arrangements for risk management is undertaken by the Risk Management Committee. This committee is responsible for ensuring the proper assessment and effective management of all the risks the Bank faces, with the exception of those arising directly from its monetary and banking policy, financial stability and payments policy functions.

These risks remain the responsibility of the Governor, the Reserve Bank Board and the Payments System Board. The risks associated with the Bank's shareholding in Note Printing Australia Limited (NPA) are not the responsibility of the Risk Management Committee. Instead, these risks are overseen by the Reserve Bank Board and covered by the NPA Charter, although responsibility for the day-to-day activities of NPA rests with the NPA Board and management. The Bank's risk management framework covers the relationships that it has with NPA other than its shareholding – for example, joint participation in projects and the relationships of supplier, customer, landlord and tenant.

The Risk Management Committee is chaired by the Deputy Governor and comprises the Assistant Governors for Business Services, Corporate Services and Financial Markets Groups; Chief Financial Officer; Chief Information Officer; Heads of the Audit, Human Resources, Information, and Risk and Compliance Departments; and the General Counsel. The Risk Management Committee meets six times a year, or more frequently if required, and keeps the Executive Committee and Reserve Bank Board Audit Committee informed about its activities.

The Risk Management Committee is assisted in its responsibilities by the Risk and Compliance

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Department. The department's main role is to assist individual business areas to manage their risk environment effectively within a broadly consistent framework. It also monitors risk and performance associated with the Bank's activities in financial markets and provides support to the business areas by the implementation of Bank-wide control frameworks covering fraud control, anti-bribery and corruption measures, business continuity and compliance-related risks. The Head of Risk and Compliance Department reports directly to the Deputy Governor.

The Audit Department undertakes a risk-based audit program to provide assurance that risks are identified and key controls to mitigate these risks are well designed and working effectively. This includes periodic reviews of the Reserve Bank's risk management framework and testing key controls in business areas on a sample basis. The Head of Audit Department reports directly to the Deputy Governor and Chair of the Reserve Bank Board Audit Committee, which meets at least every three months.

Portfolio Risks

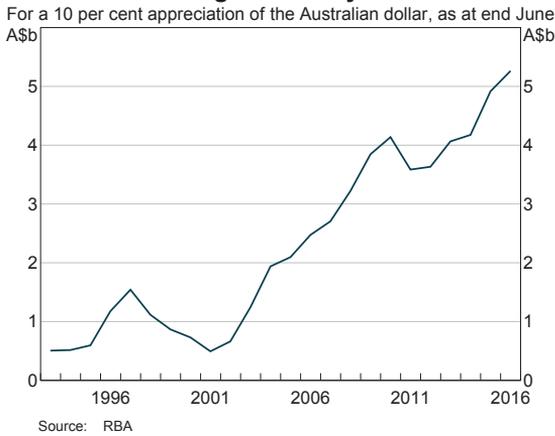
The Reserve Bank holds domestic and foreign currency-denominated financial instruments to support its operations in financial markets in pursuit of its policy objectives. These instruments

account for the majority of the Bank's assets and expose its balance sheet to a number of financial risks, the largest of which is exchange rate risk. The primary responsibility for managing these risks rests with the Financial Markets Group. The role of the Risk and Compliance Department is to monitor these risks and report on compliance with approved authorities and limits. In that regard, the Assistant Governor (Financial Markets), Head of Risk and Compliance Department and other relevant senior staff are provided with timely reports on limits compliance, portfolio risks and performance.

Exchange rate risk

Holdings of foreign currency-denominated assets expose the Reserve Bank's balance sheet to fluctuations in exchange rates as the Bank's financial statements are reported in Australian dollars. As these assets serve a policy function, the Bank does not seek to eliminate this exchange rate exposure. Rather, the Bank mitigates it by diversifying foreign currency assets across several currencies. The diversification of foreign currency investments was expanded in 2015/16 to include assets denominated in Korean won, with a corresponding reduction in assets denominated in euro. This change shifted the benchmark portfolio composition to 55 per cent in US dollars, 20 per cent in euros and 5 per cent each in Japanese yen, Canadian dollars, UK pound sterling, Chinese renminbi and Korean won (see the chapter on 'Operations in Financial Markets' for details). This benchmark portfolio composition reflects the Bank's long-term risk and return preferences and requirements for liquidity and security. The portfolio is rebalanced to these benchmark shares daily, taking into account changes in market rates and transactions. The Bank's holdings of gold and Special Drawing Rights (SDRs – a liability of the International Monetary Fund) and its investments in Asian bond funds are not managed relative to an internal benchmark.

Exchange Rate Risk on RBA Foreign Currency Portfolio



The rise in the Australian dollar value of the Reserve Bank’s portfolio over 2015/16 was largely due to the depreciation of the Australian dollar, and resulted in an increase in exchange rate risk. Based on the level of reserves at 30 June 2016, a 10 per cent appreciation of the Australian dollar would result in a mark-to-market loss of \$5.26 billion.

Interest rate risk

The value of the Reserve Bank’s financial assets is also exposed to movements in market interest rates, as the bulk of the domestic and foreign portfolios comprise fixed-income securities.

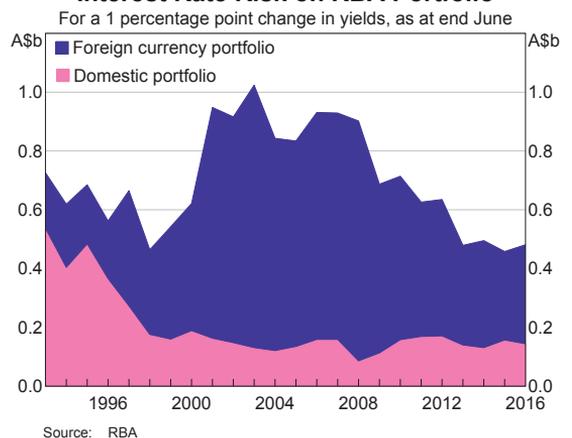
Total holdings of domestic securities increased by \$2.1 billion over 2015/16 to around \$88.4 billion. Most of these assets are held on a temporary basis under repurchase agreements (repos). The average term of the Bank’s domestic repo book at the end of June 2016 was around three weeks. For domestic securities held outright, the sensitivity to movements in market yields decreased over 2015/16 because of a decrease in holdings of Australian Government Securities and semi-government securities.

The Reserve Bank is exposed to very little interest rate risk on its balance sheet liabilities. Banknotes on issue account for about 42 per cent

of total liabilities and carry no interest cost to the Bank. The other sizeable obligations include deposits held by the Australian Government and government agencies, and Exchange Settlement Account balances held by authorised deposit-taking institutions (ADIs). These deposits have short maturities that broadly match the Bank’s domestic assets held under repo. Interest paid on these deposits reflects domestic short-term interest rates, effectively hedging part of the interest rate exposure of the domestic asset portfolio.

In contrast to the domestic portfolio, the Reserve Bank’s foreign currency assets are managed relative to benchmark duration targets that reflect the Bank’s long-term appetite for risk and return, and are periodically reviewed. The duration target for the US, European, Canadian and Japanese portfolios is six months and for the UK portfolio it is three months. The Chinese and Korean portfolios have higher duration targets of 30 and 18 months, respectively. The weighted-average benchmark duration target for the Bank’s foreign portfolios remains low by historical standards at around 7½ months, reflecting the generally low level of interest rates and risk of capital losses should bond yields return to more normal levels.

Interest Rate Risk on RBA Portfolio



The overall level of interest rate risk on the Reserve Bank's domestic and foreign financial assets increased over 2015/16, owing mainly to an increase in the Australian dollar value of the foreign portfolio. The Bank would incur a valuation loss of around \$481 million if interest rates in Australia and overseas rose uniformly by 1 percentage point across the yield curve.

Credit risk

Credit risk is the potential for financial loss arising from the default of a debtor or issuer or from a decline in asset values following a deterioration in their credit quality. The Reserve Bank manages its credit exposure by applying a strict set of criteria to its holdings of financial assets and confining its dealings to highly creditworthy counterparties. In addition, the Bank's transactions are executed under internationally recognised legal agreements.

The Reserve Bank is exposed to very little issuer credit risk on its outright holdings in the domestic portfolio as it invests only in securities issued by the Australian Government or by state and territory government borrowing authorities. The Bank is exposed to a small amount of counterparty credit risk as a large portion of its domestic assets are held under repo. However, the credit risk on repos is inherently limited. The Bank would face a loss only if a counterparty failed to repurchase securities sold under repo and the market value of the securities fell below the agreed repurchase amount. The Bank manages this exposure by applying an appropriate margin ('haircut') to the securities and requiring that these securities meet certain eligibility criteria. The degree of over-collateralisation increases with the risk profile of the security (see the chapter on 'Operations in Financial Markets' for details).

Given its policy role, the Reserve Bank does not apply specific credit criteria to the counterparties

with which it is willing to deal in its domestic market operations. However, counterparties must be subject to an appropriate level of regulation and be able to ensure efficient and timely settlement of transactions within the Austraclear system.

The Reserve Bank's investments in the foreign currency portfolio are also typically confined to highly rated and liquid securities, as well as deposits with foreign central banks. The majority of the Bank's outright holdings are securities issued by the national governments of the United States, Germany, France, the Netherlands, Japan, Canada, the United Kingdom, China and South Korea, with modest holdings of securities issued by select highly rated supranational institutions and government agencies.

The Reserve Bank also holds a portion of its foreign currency portfolio in short-term repos. This exposes the Bank to the small amount of residual credit risk that is inherent in repos, as noted above. The Bank manages this risk by requiring 2 per cent over-collateralisation and accepting only high-quality and liquid securities as collateral. Credit exposure on foreign repos is further managed by imposing limits on individual counterparty exposures and executing a Global Master Repurchase Agreement (or Master Repurchase Agreement where appropriate) with each counterparty. The Bank's framework for managing counterparty exposures utilises credit ratings and market-based credit measures.

The Reserve Bank undertakes foreign exchange swaps as part of its policy operations and as a means to enhance returns on the foreign currency portfolio. Credit risk on these instruments is managed to a low level by transacting only with counterparties that meet strict eligibility criteria, including the requirement to have executed with the Bank an International Swaps and Derivatives Association (ISDA) agreement with a credit support annex.



The Risk Management Committee at work

Exposures on foreign exchange swaps generated by movements in market exchange and interest rates are managed through two-way margining.

Operational Risk

There are a diverse range of operational risks associated with the day-to-day activities of the Reserve Bank. These risks range from the possibility that banking services might not be delivered to the required standard to the loss of access to key information technology (IT) infrastructure. Generally, the Bank has a low appetite for this type of risk, reflecting the view that satisfactory fulfilment of its important public policy responsibilities could be seriously undermined if its risk profile is poorly managed. That said, the Bank recognises that it cannot eliminate risk entirely from its operations. Acceptance of some risk is often necessary to foster innovation and efficiencies in business practices.

While all parts of the organisation are exposed to operational risk of varying degrees, the most significant risks are those associated with financial transactions undertaken by the Reserve Bank for its own activities and that of

its clients. During 2015/16, Financial Markets Group executed around 91 000 transactions, generating an average daily settlement value of around \$41 billion. The Bank is also the primary banker for a number of government entities, including the Australian Taxation Office and Department of Human Services, and it maintains the infrastructure to facilitate real-time interbank payment and settlement services through the Reserve Bank Information and Transfer System (RITS). Given the crucial role of these activities in the financial system, any operational failure could have widespread consequences. As a result, the Bank has a range of processes in place to facilitate ongoing and effective management of its operational risks in order to guarantee that the control environment is suitably robust.

The Reserve Bank continues to direct significant resources towards the delivery of a number of large and complex multi-year projects. These include the renovation of banking applications and systems, the development of infrastructure to facilitate real-time retail payments and the upgrade of Australia's banknotes. Successful completion of these projects will ensure

high-quality services are maintained for the Bank's clients and the Australian public. The risks associated with project work are carefully managed so that adequate resources are available, nominated project deadlines are met and change management is effective.

The policy and business operations of the Reserve Bank are highly dependent on IT systems to carry out their activities. The Bank's risk management framework supports an ongoing focus on controlling the risks associated with complex IT systems. A key element of this framework is the operation of the Technology Committee, which is chaired by the Assistant Governor (Corporate Services). This committee collaborates with relevant business areas to facilitate the assessment, monitoring and management of IT-related risks and ensure IT-related initiatives are consistent with the Bank's IT strategy. This work is supported by the continuous evaluation of industry developments

to confirm that the Bank's systems conform to current IT standards and remain robust. Assessment of appropriate staff resourcing, the adequacy of controls over IT processes and the level of security over information management are all incorporated into the Bank's risk management framework.

The continuity of critical business functions during and after a disruptive event such as a natural disaster or terrorist attack is a key area of focus for the Reserve Bank. Consequently, the Bank has developed considerable resilience in its operations, including the use of a dedicated Business Resumption Site (BRS) in north-west Sydney. Permanent staff from some of the Bank's most critical operational areas are located at the BRS to enable virtual continuity of operations if a disruption to the Bank's Head Office were to occur. All departments regularly participate in exercises to test back-up plans covering a range of scenarios, including loss of facilities, IT systems and staff. The Bank also participates in contingency event exercises with external organisations to ensure that its staff are well briefed in their roles during these types of events and that effective internal and external communication arrangements are in place. The Risk Management Committee is briefed on the results of these exercises.

The effective management of compliance risk is central to the Reserve Bank's activities. A small compliance unit within Risk and Compliance Department collaborates with all business areas to develop a broadly consistent approach to managing this risk and keeps the Risk Management Committee informed regarding the level of compliance in key areas.

The Reserve Bank has zero tolerance for fraud or other unethical behaviour. Several layers of fraud controls are in place, including having a clear decision-making hierarchy, separation of duties and controls over computer access



Mark Manning (Deputy Head of Payments Policy Department) at the Risk Australia 2015 Conference, August 2015

Photo: Asia Risk

at both the user and administrator levels. The Bank also has arrangements in place to enable fraud or unethical behaviour to be reported anonymously, either by a member of staff or the public, and fully investigated. Ongoing training and awareness programs are also conducted, covering appropriate standards for staff behaviour and ensuring awareness of specific risk areas such as fraud and foreign bribery. All staff involved in financial dealing have well-defined limits to their authority to take risks or otherwise commit the Bank. These arrangements are further enhanced by separate front-, back- and middle-office functions, where staff who initiate trades, those who settle them and those who monitor and report on exposures and compliance with trading and investment guidelines remain physically separate and have separate reporting lines. Over 2015/16, there were no reported instances of fraud against the Bank by current or former employees.

The Reserve Bank remains strongly committed to maintaining and strengthening a culture that encourages and supports the highest standards of behaviour. A Code of Conduct is in place that sets out requirements of the Bank's employees and others who are involved in its activities. The code articulates the values that staff are expected to demonstrate when pursuing the Bank's objectives. These values are promotion of the public interest, integrity, excellence, intelligent inquiry and respect. All staff attest annually that they have read and understood the code.

Despite controls put in place, operational failures can occur, which may adversely affect the Reserve Bank's reputation or lead to financial or other costs. The Risk Management Committee receives timely reports on any disruptions, which document and review the relevant circumstances and identify areas where new controls may be needed or where existing controls should be strengthened.

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Government Guarantee Scheme

On behalf of the Australian Government, the Reserve Bank administered the Guarantee Scheme for Large Deposits and Wholesale Funding. The final fee payments were processed under this scheme in October 2015. The scheme was introduced during the financial crisis, formally commencing on 28 November 2008 and, at its peak in February 2010, covered guaranteed liabilities valued at around \$170 billion. Over its life, ADIs covered under the scheme paid a total of \$4.5 billion in guarantee fees. This included \$4.3 billion for wholesale funding liabilities and \$211 million in fees collected for large deposits.

The Reserve Bank continues to act as the administrator of the Guarantee of State and Territory Borrowing. Applications for new guaranteed liabilities under this scheme closed in 2010, although existing liabilities will continue to be guaranteed until maturity, at the latest in 2023. To date, a total of \$395 million in fees has been collected for state and territory borrowing since the scheme commenced in 2009, with \$18 million collected in 2015/16.