# Risk Management

## Objectives and Governance Structure

The Reserve Bank manages a broad range of risks in carrying out its responsibilities as a central bank. The major risks flow from the financial assets held to underpin the Bank's operations in financial markets. The Bank also faces significant operational risks arising from banking and settlement transactions, and from the administration of the Bank itself. It is not possible to eliminate these risks; rather, the Bank's key risk management objective is to contain risk to a level that does not constrain the Bank from meeting its policy or business objectives.

The Reserve Bank's framework for managing risk involves identifying and assessing risks as well as implementing and reviewing the effectiveness of controls. Underpinning this framework is the principle that risk management is an integral part of each line manager's job. As such, the prime responsibility for controlling and mitigating risks on a day-to-day basis rests with managers of the various business areas within the organisation. Management also promotes an active risk management culture that emphasises the careful analysis and control of risk as a vital part of all business processes in the Bank.

Oversight of the Reserve Bank's arrangements for risk management rests with the Risk Management Committee. This is a committee of senior staff responsible for ensuring that all the risks facing the organisation, with the exception of those arising directly from decisions about monetary policy, are properly assessed and managed. It is chaired by the Deputy Governor and comprises the Assistant Governors for Banking & Payments, Corporate Services, Currency and Financial Markets; the Chief Financial Officer; the Heads of Audit and Risk Management; and the General Counsel and Deputy Secretary. It meets once every three months, or more frequently if needed, and informs the Reserve Bank Board's Audit Committee of its activities. The Risk Management Committee is assisted in its responsibilities by the Risk Management Unit (RMU), whose main role is to assist individual business areas to manage their risk environment within a broadly consistent framework across the organisation. The RMU also monitors risk and performance associated with the Bank's activities in financial markets, known as the middle office function.

Arrangements for managing risk are also supported by the Reserve Bank's Audit Department, which complements – but remains separate from – the work of the RMU. In addition to providing assurance that the Bank's risk management policies are effective, the Audit Department has a separate, independent brief to test the adequacy of procedures and controls at all levels of the Bank. The RMU itself is subject to audit review. The Audit Department reports to the Board's Audit Committee.

As noted above, the Reserve Bank's risk management framework covers a broad spectrum of financial and operational risks, but not those inherent to the Bank's core monetary policy functions, which remain the responsibility of the Governor and the Board. The risks associated with the Bank's ownership of Note Printing Australia and Securency International are also covered by the framework, though the day-to-day activities of these entities are the responsibility of their management and respective Boards.

The sections below describe the various risks faced and associated management practices in more detail.

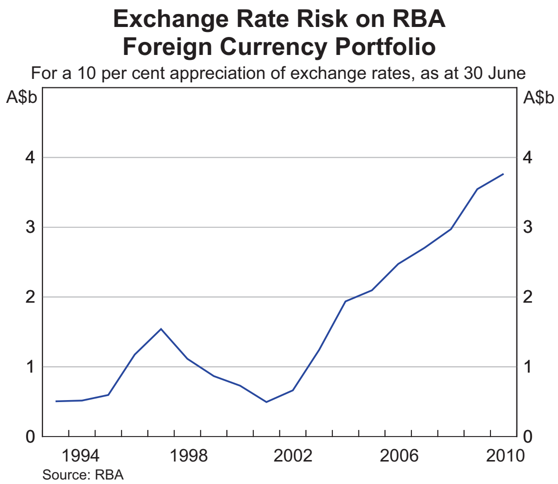
## Portfolio Risks

The Reserve Bank holds domestic and foreign currency-denominated financial assets to support its operations in financial markets in pursuit of its policy objectives. The risks flowing from these holdings – of which the most significant are exchange rate, interest rate and credit risks – are managed by the Financial Markets Group. Responsibility for monitoring the risks, as well as the day-to-day compliance with the control framework surrounding the management of the assets, rests with the RMU, which provides compliance reports, and reports on portfolio performance and risks, to the Assistant Governor (Financial Markets), the Head of Risk Management and other senior staff on a daily basis.

### Exchange Rate Risk

The Reserve Bank's foreign currency-denominated assets – which form Australia's official foreign currency reserves – are exposed to exchange rate risk, i.e. a change in the value of the portfolio in response to movements in the Australian dollar. Unlike commercial banks, because of its policy role the Reserve Bank cannot hedge its exposure.

The level of the Reserve Bank's foreign currency risk is also determined by the size of the portfolio. Over the course of 2009/10, the size of the Bank's foreign portfolio rose in foreign currency terms because of a general allocation of Special Drawing Rights (SDRs) by the IMF to all its member countries in August 2009. SDRs are regarded by the IMF as a reserve asset, which can be sold to other member countries in exchange for foreign currency if needed. The allocation to member countries was one of a number of measures introduced by the IMF to boost global market liquidity. Australia's allocation is held on the Bank's balance sheet.




The exchange rate risk to which the Reserve Bank is exposed is mitigated to a degree by the diversification of foreign currency reserves across three highly liquid currencies – 45 per cent is held in US dollars, 45 per cent in euros and 10 per cent in Japanese yen. The portfolio is typically rebalanced to these shares each day in response to changes in market rates or transactions that the Bank undertakes for other purposes.

Overall, the exchange rate risk on the portfolio rose over the past year; at the current level of reserves, the potential valuation loss from a 10 per cent appreciation of the Australian dollar (on the basis of a weighted average of the currencies in the portfolio) would be around $3.8 billion.

### Interest Rate Risk

The value of the Reserve Bank's financial assets is also subject to movements in market yields. Most of these assets are held as fixed-income securities, i.e. the stream of income is fixed over the term of the security. Consequently, a rise in market yields generates a fall in the value of these securities and a fall in yields results in an increase in their value. Securities held outright that have a longer maturity (or duration) face a higher potential loss from a given rise in market interest rates because the associated cashflows are fixed further into the future.

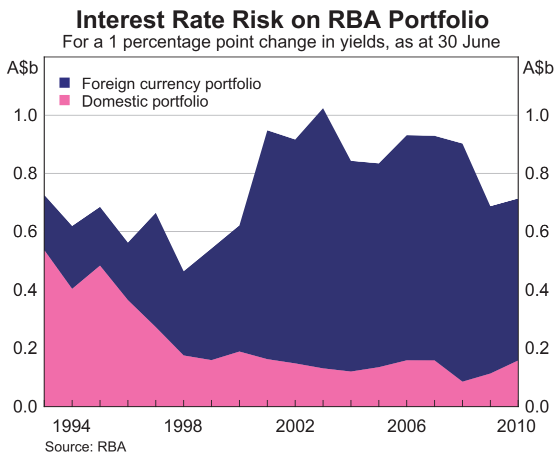
Domestic securities comprise around half of the Reserve Bank's portfolio of financial assets. These securities, which are highly rated, are held for policy-related purposes – specifically, to manage the demand for and supply of settlement balances in the banking system to ensure that the overnight cash rate remains close to its target level. During the course of 2009/10, the Bank's holdings of domestic securities varied primarily with movements in the Bank's liabilities. At the end of June 2010, total holdings of domestic securities were $37 billion, around $10 billion lower than a year earlier.

The interest rate risk associated with the domestic portfolio is small because the vast bulk of these securities is held under repurchase agreements (repos) with short terms to maturity. Although already fairly short, the average term to maturity of the Bank's domestic repos declined over 2009/10 as conditions in funding markets continued to recover from the effects of the global financial crisis. The average maturity of the Bank's repo holdings was 24 days at the end of June 2010, compared with around 90 days a year earlier.

The Reserve Bank has little exposure to interest rate movements on its balance sheet obligations because of the unique nature of its liabilities. The largest liability is notes on issue, which carry no interest cost to the Bank. The most significant of the other liabilities are deposits held by the Australian Government and government agencies, and settlement balances held by authorised deposit-taking institutions (ADIs). These deposits have short maturities that broadly match those of the domestic assets, particularly those held as repos, and the interest paid on these deposits reflects domestic short-term rates. In short, the interest rate exposure on the Bank's liabilities is low and largely offset by the exposure of its domestic assets.

In contrast to the domestic asset portfolio, the interest rate risk on the foreign portfolio is managed against a benchmark specified in terms of portfolio duration and which reflects the Reserve Bank's appetite for risk and return. The different approaches to the two portfolios reflect different portfolio objectives – the domestic portfolio is held for domestic policy purposes while the Bank's foreign currency assets are held to provide capacity for intervention in the foreign exchange market. The Bank seeks a market-based return on its foreign holdings subject to high degrees of security and liquidity. The benchmark duration is 18 months for each of the three foreign portfolios (US dollar, euro and Japanese yen).

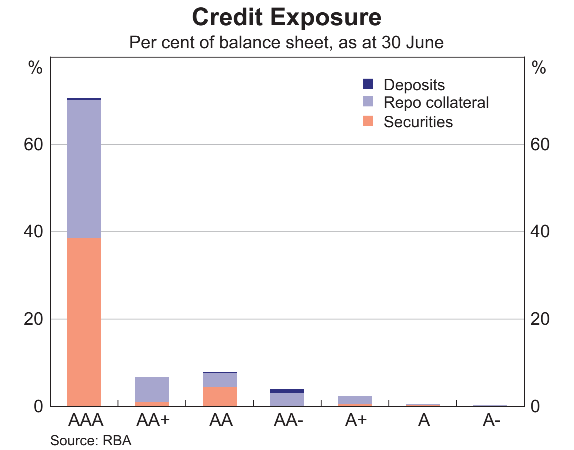
Taking the domestic and foreign assets together, the interest rate risk on the Reserve Bank's assets rose only slightly over the year. The Bank would record a valuation loss of around $700 million if interest rates in Australia and overseas rose uniformly by 1 percentage point across the yield curve.

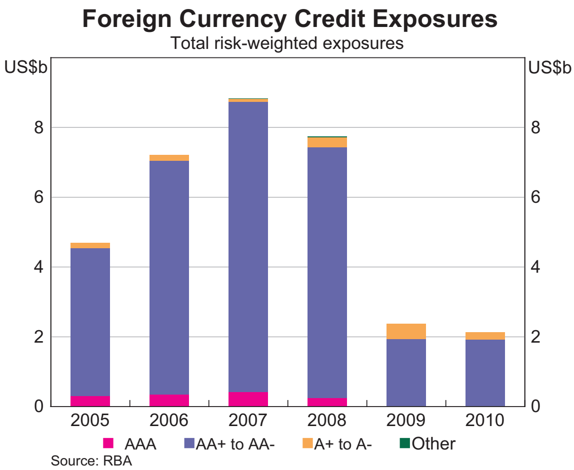



## Credit risk

The Reserve Bank minimises its credit exposure by applying a set of strict criteria to its investments. These primarily involve dealing in highly rated assets and with highly rated counterparties. Also, where appropriate, the Bank's transactions are executed in terms of internationally recognised legal agreements.

In the domestic portfolio, securities held outright are limited to those issued by the Australian Government or by State and Territory government borrowing authorities. As mentioned above, a significant proportion of the Bank's domestic portfolio consists of securities held under repo.




The Reserve Bank is exposed to some credit risk on its repos, which comprise the bulk of the domestic portfolio. However, the credit risk on repos is inherently limited and ultimately reflects the quality and market value of the collateral provided – the Bank would face a potential loss if a counterparty failed to repurchase securities sold under repo and the market value of the securities was less than the value of the initial cash consideration. The Bank manages this risk by requiring that repo collateral is of high quality and by applying a margin (or 'haircut') to the securities it is willing to accept. The haircut is generally set at 2 per cent for government-backed securities and other securities regarded as 'general collateral', but up to 10 per cent for some long-dated privately issued securities. The degree of collateralisation is monitored daily by the RMU and advice is given to the Bank's front-office dealers when a margin call is required to maintain the degree of over-cover.

The composition of the domestic securities that the Bank holds under repo changed during 2009/10 (see the chapter on 'Operations in Financial Markets' for more details). Holdings of residential mortgage-backed securities, for example, fell from around 60 per cent of the Bank's collateral pool at the start of the financial year to around 10 per cent in June 2010. For the most part, these were replaced by government securities.

The Reserve Bank's counterparties for domestic operations include a broad range of bank and non-bank financial institutions. Since these operations are conducted for policy purposes, the Bank does not explicitly assign a minimum credit rating to counterparties with which it is prepared to deal. Nevertheless, counterparties must be co-signatories with the Reserve Bank to the legal documentation underpinning repos and be able to settle transactions in a timely and efficient manner within the Austraclear system. Maintaining a high credit quality for collateral and imposing a suitable haircut on transactions are other measures used to manage counterparty credit risk in the domestic portfolio.

As with the domestic portfolio, the Reserve Bank's investments in the foreign portfolio are mostly limited to highly rated securities. Outright holdings are concentrated in liquid securities issued by the national governments of the United States, Germany, France, the Netherlands and Japan. The foreign asset portfolio also contains modest holdings of securities issued by select AAA-rated supranational institutions, US agencies and foreign government-guaranteed securities.

The Reserve Bank also invests a small portion of its foreign portfolio in short-term cash, primarily as repos and commercial bank deposits. These instruments expose the Bank to a degree of credit risk, which is managed through a combination of measures that restrict investments to highly rated counterparties. Specifically: deposits are placed only with commercial banks with a credit rating of no lower than AA-; repos are undertaken only with counterparties rated at least BBB+; and foreign exchange transactions are executed only with counterparties rated at least A-. The lower minimum credit ratings for repos and foreign exchange transactions reflect the lower risk profiles inherent in dealing in these instruments. Overlaying this framework is a limit that restricts the total value of commercial bank deposits to no more than 10 per cent of the foreign currency portfolio and a limit on the overall exposure to individual counterparties based on their capital base.

With no major changes to the credit management framework during 2009/10, there was little material change in the Reserve Bank's credit exposure on the foreign portfolio and little change in the overall credit quality of the Bank's assets. The majority are rated AA- or higher.

## Operational Risk

The operational risks faced by the Reserve Bank in carrying out its day-to-day responsibilities range from the possibility that access to key financial infrastructure is lost, to the possibility that work in any of its activities is not completed properly owing to insufficient or poorly trained staff. The Bank also faces security risks, both IT and physical, because of the sensitive nature and strategic importance of the information with which it deals, and because of the value of the assets it holds.

A significant operational risk facing any financial institution is that its staff may engage in fraud or undertake unauthorised transactions, exposing the institution to significant financial loss or reputational damage. The Reserve Bank has a number of measures in place to manage this risk. These include having a clear decision-making hierarchy, with all staff involved in financial dealing having well-defined limits to their authority to take risks or otherwise commit the Bank, and controls over computer access at both the user and administrator levels. These arrangements are further enhanced by independent front, middle and back-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 are physically separate and have separate reporting lines within the organisation.

The Reserve Bank's employee Code of Conduct is a key document that sets out the standard of integrity and propriety expected of staff in carrying out their duties. Also important is the Bank's Fraud Control Policy and arrangements by which suspected suspicious behaviour can be reported anonymously. This policy is regularly reviewed to ensure that it remains up to date and staff are periodically reminded of the arrangements for reporting suspicious behaviour. In addition, all Bank staff have access to fraud-awareness training, with those in key dealing and procurement-related positions given regular face-to-face training by forensic professionals from a major auditing firm.

Operational risks also arise in the Reserve Bank's Financial Markets Group from the large number of transactions undertaken each day and because dealing arrangements change from time to time to reflect changes in market conditions. Some 62 000 transactions were undertaken in 2009/10, generating average daily settlement flows of around $31 billion. These figures are a little lower than the corresponding numbers for the previous financial year, with much of the decrease reflecting lower volumes of repos in the foreign portfolio. The risks associated with such a large volume of transactions are managed by ensuring that systems and processes are efficient and robust. Consistent with this, the Bank has an on-going program of development work for systems used in monitoring and managing its financial market transactions; the Bank is currently upgrading the system for managing its foreign currency benchmark portfolios. This work is typically carried out under standard guidelines for project management, with all new hardware and newly developed software, and their links to existing management systems, thoroughly tested before entering production.

The pivotal position of the Reserve Bank in the financial system means that operational risks associated with providing services to clients or market participants are especially significant because any failure could have widespread consequences. The Reserve Bank is the main banker for a number of government agencies – including the Australian Taxation Office, Medicare Australia and Centrelink. It also provides real-time interbank payment and settlement services through RITS. The Bank invests significant resources to ensure that its banking and settlement systems are robust and have sufficient capacity to perform their critical roles. Recent improvements and system upgrades are discussed in the chapter on 'Banking and Payments'.

The Reserve Bank has extensive back-up plans and capacity to ensure that its critical business services can continue efficiently and reliably if access to Head Office facilities and IT systems is lost. The centrepiece of these arrangements is the Bank's Business Resumption Site located north-west of the Sydney metropolitan area. Some staff are based permanently at the site to ensure that a number of critical services can be maintained if Head Office is unexpectedly inaccessible. Business areas within the Bank regularly test their back-up arrangements at the site – some 30 tests were undertaken over the course of 2009/10. In addition, a large-scale test of systems, involving staff from all the Bank's departments, is conducted at the site twice a year. The results of the tests are monitored by the Risk Management Committee.

Despite strong controls and a good risk management culture, operational failures occur from time to time, which can adversely affect the Reserve Bank's reputation or lead to other costs. These failures are reported in a timely way to the Risk Management Committee and monitored to identify areas where new controls may be needed or where existing controls should be strengthened.

## Government Guarantee Scheme

The Reserve Bank has administered the Guarantee Scheme for Large Deposits and Wholesale Funding since it was introduced in late 2008 as part of the Australian Government's response to the global financial crisis. The Bank's primary responsibilities have been to process applications for guarantees from ADIs, issue guarantee certificates to successful applicants and process monthly fee payments.

As conditions in global financial markets improved during the first half of 2009/10, interest by ADIs in accessing the Scheme tapered off and by early 2010 the number of applications for guarantees had largely dried up. In response, the Government closed the Scheme to new liabilities in March 2010. Given the term of the guarantees, the Reserve Bank will continue to have an administrative role in collecting guarantee fees for a few more years. Fees paid to the Government since the Scheme commenced amounted to $1.7 billion by June 2010, of which a little under $1.3 billion was processed in the 2009/10 financial year. In the absence of new applications, however, the work involved in the Scheme's administration declined and, as a result, staff resources in the area were scaled back. Total liabilities guaranteed under the Scheme also began to fall. In June 2010, they amounted to $160 billion, around $10 billion below their peak in January 2010.