

# Risk Management

## Objectives and Governance Structure

The RBA is exposed to various risks in carrying out its duties. Financially, the biggest risks are those stemming from its operations in financial markets and the holding of assets needed to support those operations. Like any organisation, the RBA also faces a number of operational risks, ranging from the possibility of loss of key infrastructure as a result of a natural disaster or act of terrorism, to the possibility of fraud or other illegal behaviour on the part of employees. The RBA seeks to manage these risks and to reduce them to the maximum extent possible, consistent with carrying out its public policy responsibilities.

Day-to-day control of most risks is the responsibility of line management, in accordance with well-developed protocols and procedures. This is overseen by a high-level Risk Management Committee comprising the Deputy Governor as Chairman, the Assistant Governors of Financial Markets, Business Services and Corporate Services, the Heads of Audit and Risk Management, the General Counsel and Deputy Secretary. The primary task of the Committee is to ensure that the full spectrum of non-policy risks facing the RBA is assessed and properly managed by staff in accordance with the Bank's policies, and in particular to ensure that risks spanning several areas of the Bank are properly treated. The Committee meets as required but at least quarterly, operates under a formal charter and delegation from the Governor, and reports annually to the Board.

During 2003/04, a small Risk Management Unit was established, headed by a senior and experienced officer, to assist in the consistent treatment of risks across the RBA and co-ordination of those risks that span more than one functional area of the RBA. The Unit is progressively reviewing the risk registers and practices at departmental level and assists the Risk Management Committee in its work.

A further component of risk management is a strong internal audit process. Audit Department co-ordinates closely with – but remains quite separate from – the Risk Management Unit. In addition to monitoring compliance with the Bank's risk management policy as part of detailed audits, Audit Department has a separate, independent brief to look at existing procedures and to provide analysis of the adequacy of these procedures. Audit Department reports directly to the Audit Committee of the Board which meets quarterly (refer chapter on "The Reserve Bank Board and Governance").

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

## Balance Sheet Risks

There are three types of balance sheet risk: credit, interest rate, and exchange rate risk. Most of the responsibility for managing balance sheet risks falls on Financial Markets Group. Detailed

procedures manuals, formal delegations, market benchmarks and position and counterparty limits are in force as part of this process. Compliance is independently checked on a daily basis.

## Credit Risk

Credit risk is the risk of default by a firm which owes the RBA money or securities – e.g. the issuer of a security that the RBA holds, a bank with which the RBA has deposited funds, or a counterparty with which the RBA has dealt. Over the past year, there have been a number of changes in the RBA's operations which have slightly increased its credit exposure but, compared with the average private financial institution, the RBA's overall exposure to credit risk is still very low.

The ongoing decline in the supply of Commonwealth Government securities has required the RBA to expand the pool of securities eligible for domestic market operations. It has recently widened its outright holdings of domestic securities to include securities issued by State and Territory central borrowing authorities. The RBA currently holds outright about \$1.0 billion of these securities, all of which are rated AA or higher.

There has also been an expansion in the range of collateral accepted for the RBA's domestic repurchase agreement transactions. In past years, this process resulted in the inclusion of securities issued by State and Territory borrowing authorities, and supranational organisations which have a AAA rating. More recently, the RBA added bank bills and certificates of deposit issued by highly rated banks licensed in Australia, and Australian dollar denominated securities issued by some foreign governments and government agencies with a AAA rating. The RBA's repo collateral at end June 2004 included \$4.1 billion of bank bills and certificates of deposit and \$0.6 billion of securities issued by foreign governments and government agencies. Collateral in the form of CGS and State government paper showed a corresponding decline (see table).

In the case of foreign assets, the RBA again confines its holdings to highly rated securities and bank deposits. The bulk of these assets (around 80 per cent) is held in securities issued by the United States, German, French and Japanese governments. Apart from those issued by the

<b>Domestic Portfolio Holdings</b>		
(\$ billion)		
	June 2003	June 2004
<b>Outright holdings*</b>		
– Commonwealth Government securities	4.7	3.7
– State and Territory central borrowing authorities	-	1.0
<b>Repurchase Agreements</b>		
– Commonwealth Government securities	7.2	4.6
– State and Territory central borrowing authorities	6.7	4.2
– Supranational organisations	0.4	0.1
– Bank bills and certificates of deposit	-	4.1
– Foreign governments and government agencies	-	0.6

\* Includes securities sold under Sell repos

Japanese government, all these securities have credit ratings of AAA. During 2003/04, as noted in the chapter on “International Financial Co-operation”, the RBA invested a small portion of its foreign currency reserves in the Asian Bond Fund. The average credit rating of bonds in this Fund is A-, and at least 97 per cent of bonds must be investment grade – i.e. bonds rated equivalent to Standard and Poor’s BBB- or higher.

Credit risk on deposits with foreign commercial banks is managed by confining deposits to banks with a high credit rating (AA- or above) and placing limits on exposures to individual banks. Also, no more than 25 per cent of the overall portfolio can be held in commercial bank deposits and the maximum term to maturity of each deposit may be no more than three months.

Counterparty exposures arising from domestic and foreign dealing relationships are generally small, as all securities transactions are settled on a delivery-versus-payment basis – i.e. in settlement systems that accommodate the simultaneous transfer of cash and securities. However, the RBA is exposed to settlement risk on its foreign exchange transactions. This can be significant because the two legs of the foreign exchange transaction are settled in different time zones, so there may be a period when the RBA has paid out funds and not yet received anything in return. It also has some exposure in its repurchase operations as, in the event that a counterparty fails in its obligation to repurchase the securities it has sold to the RBA, the market value of these securities may have fallen to less than the value of the cash lent to the counterparty. To address the latter risk, the RBA requires that all counterparties supply collateral in excess of the value of the cash or assets, including gold, being lent. The market value of collateral is measured on a daily basis and counterparties must supply additional collateral if the market value falls below the agreed amount.

Because the RBA deals with each counterparty across a range of financial products, it has systems in place to aggregate the overall exposure to each counterparty, with individual product exposures weighted by the riskiness of each transaction. The absolute exposure to individual counterparties is limited in accordance with the counterparty’s financial strength, credit rating and the size of its capital. Details of the RBA’s credit exposures are given in Note 18 to the Financial Statements.

## **Interest Rate Risk**

The bulk of the RBA’s financial assets is held in domestic and foreign fixed income securities. These securities carry interest rate risk because their value will fall if market yields rise. The longer the maturity of a security (or, more precisely, its duration) the larger is the risk.

The interest rate risk on the domestic portfolio is relatively small as the bulk of the portfolio consists of short-term repurchase agreements and securities. These types of instruments are best suited to meeting domestic operating objectives. Scope for managing any residual interest rate risk in the domestic portfolio is limited given the size of the Bank’s holdings and the policy significance of its transactions.

For foreign investments, the duration of the benchmark has been set at 30 months, with the maximum term to maturity of any single security limited to ten and a half years. This duration has been chosen using financial modelling to judge the most attractive risk/return trade-off.

Overall, across the domestic and foreign portfolios, a one percentage point rise in yields would result in a capital loss equal to 1.8 per cent of the portfolio, or about \$850 million.

## **Exchange Rate Risk**

The RBA holds a portfolio of assets denominated in foreign currency pursuant to its role in holding and managing Australia's reserve assets. This enables the RBA to intervene in the foreign exchange market on occasions when it judges such action to be appropriate. This portfolio is exposed to exchange rate risk because the value of these assets measured in Australian dollars varies with fluctuations in the relevant currency exchange rates against the Australian dollar. Note that this risk applies only to that part of the foreign currency portfolio that is held outright as opposed to that part held under foreign exchange swap agreements. Foreign currency held under swap agreements does not expose the RBA to exchange rate risk because the exchange rate for the forward leg of the swap is agreed at the time the transaction is undertaken.

The share of the RBA's portfolio exposed to exchange rate risk fluctuates over time in line with the RBA's intervention operations. When the RBA is selling foreign currency to buy Australian dollars, for example, the proportion of its portfolio exposed to foreign currency risk will fall. At times when the exchange rate is unusually low, and hence more likely to appreciate, intervention is likely to have reduced the RBA's exposure to the effects of a rising exchange rate, and vice versa when the exchange rate is unusually high. To that extent, it can be said that foreign exchange risk is managed. But in general, the RBA's role as custodian of Australia's international reserves means that it has to accept a large foreign exchange risk. This cannot be hedged away without negating the purpose for which the reserves are held. Given current holdings of net international reserves, a 10 per cent rise in the exchange rate of the Australian dollar (on average against all the currencies held in the portfolio) would result in a valuation loss of about \$2 billion.

Given the size of the risks on foreign exchange and interest rates, it is imperative that the RBA carry enough capital to absorb valuation losses on occasions when the Australian dollar exchange rate appreciates or local and global interest rates rise. The Board reviews the capital position annually and has during the past year also agreed to an approach which more accurately aligns desired capital with the degree of risk of the various assets on the RBA's books.

## **Operational Risk**

While all parts of the RBA are exposed to operational risks of varying degrees, the most significant are those associated with carrying out the Bank's market operations and supplying banking and settlement services to clients and to the market as a whole.

The RBA's operations in financial markets require it to undertake a large volume of transactions each day. Around 45 000 transactions were undertaken in 2003/04, with average daily settlement flows of around \$24 billion. Consequently it is important that the systems and processes that support these operations are efficient and robust. The RBA is currently involved in the installation of a new financial markets trading and settlement platform provided by OpenLink. This system will replace a number of existing systems and put all dealing functionality and risk controls onto an integrated platform.

Like most financial institutions, the RBA is exposed to the risk that staff may take unauthorised actions and expose it to financial loss or reputational damage. It controls this risk through various means: having a clear decision-making hierarchy, with all staff involved in financial dealing having clear limits to their authority to take risks; building controls into the computer systems to prevent unauthorised dealing; separating the initiation of transactions from the settlement of them; having an independent middle office to check compliance; and a strong internal audit function.

A significant part of the RBA's operations is also involved in providing services to clients or the market as a whole. The RBA is the main banker for a number of government agencies, and processes on average about 250 million transactions a year, including all Australian Taxation Office, Health Insurance Commission and Centrelink payments. It also provides real-time interbank payment and settlement services through the RITS system, which typically involve processing about 22 600 payment instructions per day, for an average daily value of \$136 billion.

It is important that these functions be carried out not only efficiently but also with complete reliability. The RBA has extensive back-up capacity and plans for business resumption in the event of a loss of access to premises or IT systems. A major program is now under way to develop further these capacities, which will result in substantial investment in more robust facilities over the next few years.

## **Reputational Risk**

Reputational risk arises as an adjunct to all the risks outlined above: the RBA would suffer reputational loss were any of these risks not well managed. Likewise, reputational risk is contained to the extent that the other risks are adequately controlled. Reputational risks are further contained through, among other things, protocols on access to and handling of sensitive information, careful controls governing dealings with the media, and clear guidelines for the conduct of management and staff in carrying out their duties. More fundamentally, making strenuous efforts to maintain a strong organisational culture is key to maintaining a reputation for competence, integrity and impartiality. The RBA invests considerable resources in training for its staff to develop both technical competence and also an awareness of the need for ethical behaviour and the requirement to put aside any personal interests in carrying out official duties. The Code of Conduct for staff is an important vehicle for achieving this goal.