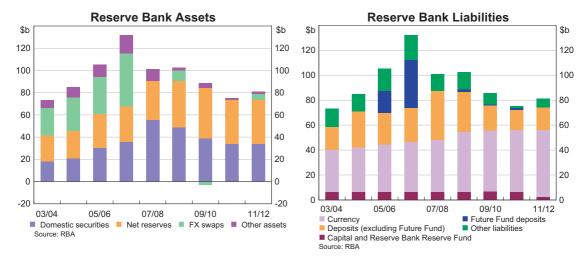
# **Operations in Financial Markets**

#### The Balance Sheet

The Reserve Bank undertakes transactions in domestic and international financial markets in order to implement the Board's monetary policy decisions, manage the nation's foreign reserve assets and provide banking services to its clients (mainly the Australian Government). The structure of the Bank's balance sheet is influenced by the execution of these functions as well as the Bank's role in issuing the nation's banknotes.

The Reserve Bank's balance sheet grew by around \$6 billion over 2011/12. There was an increase in banknotes on issue, broadly in line with the growth in the size of the economy over the year. The Australian Government's balances on deposit with the Bank were little changed; such balances are used to manage the liquidity position of the Government and usually fluctuate over the course of the year. The higher liabilities were matched on the asset side of the balance sheet by increased holdings of domestic securities under repurchase agreements (repos) and foreign assets purchased under foreign exchange swaps.



The Australian dollar value of net reserves held on the balance sheet increased by \$0.5 billion over the year to \$40.0 billion. This mainly reflected earnings on the portfolio and valuation gains. Transactions with the International Monetary Fund (IMF) linked to funding assistance programs for Ireland, Portugal and Greece resulted in a drawdown in the Bank's holdings of foreign currency reserves of around \$0.7 billion. This was matched by an increase in Australia's reserve position at the IMF, which is an asset of the Australian Government and not on the Reserve Bank's balance sheet. Foreign exchange swaps outstanding at the end of June stood at \$5.0 billion. These are undertaken for domestic liquidity management (see below). As a result, the level of gross reserves held on the Bank's balance sheet, which is the level of net reserves adjusted for foreign exchange held or lent under foreign exchange swaps, stood at \$45.0 billion at the end of June. Taking into account Australia's reserve position at the IMF, Australia's official reserve assets were \$47.2 billion.

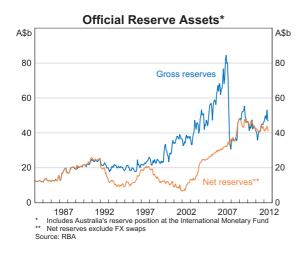
#### Reserve Bank Balance Sheet

\$ billion

	June 2010	June 2011	June 2012
Assets	86	75	81
Foreign	47	41	47
– Net reserves <sup>(a)</sup>	46	39	40
– FX swaps	-3	0	5
– Other <sup>(b)</sup>	4	2	2
Domestic	39	34	34
Liabilities	86	75	81
Deposits	21	18	18
Currency	49	50	54
Other (including capital)	16	8	9

<sup>(</sup>a) Excludes Australia's reserve position at the IMF

Source: RBA



# **Committed Liquidity Facility**

As discussed in the 2011 Annual Report, the implementation of the Basel Committee on Banking Supervision's (BCBS) new global liquidity standard will affect the Reserve Bank's earnings and, potentially, its balance sheet in future years. The standard, which will take effect from 1 January 2015, imposes a greater requirement for financial institutions to hold highquality liquid assets (HQLA). In Australia, the supply of assets that qualify as HQLA (Commonwealth and state government debt) will not be sufficient for authorised deposit-taking institutions (ADIs) to meet the standard. For this reason, the Bank has undertaken to provide a 'committed liquidity facility' (CLF), thereby ensuring that ADIs will have sufficient access to liquidity in an acute stress scenario, as specified under the standard.

In November 2011, the Reserve Bank released details of the CLF, concurrently with the Australian Prudential Regulation Authority (APRA) publishing details of the proposed implementation of the BCBS liquidity reforms in Australia. The CLF will enable participating ADIs to access a pre-specified amount of liquidity by selling securities to the Bank under repo. These repos will be contracted outside of the Bank's normal market operations and at a rate that is 25 basis points above the cash rate target. The range of eligible securities will be broader than that used for normal market operations. In particular, ADIs will be able to use certain related-party assets issued by bankruptcy remote vehicles, such as 'self-securitisations' of their residential mortgages. To secure the Bank's commitment, an ADI will be required to pay a fee of 15 basis points per annum, with the fee assessed on the size of the Bank's commitment. The fee will apply to both drawn and undrawn commitments and must be paid monthly in advance. Fees collected for the facility will be reported as revenue by the Bank. The Bank's

<sup>(</sup>b) Includes foreign currency securities sold under repurchase agreements

commitment under the CLF is contingent upon an ADI having positive net worth in the opinion of the Bank, having consulted with APRA. Further details on the facility can be found in a November 2011 speech by the Assistant Governor (Financial Markets), 'The Committed Liquidity Facility'.

In the normal course of events, the standing arrangements with ADIs will not affect the size or composition of the Reserve Bank's balance sheet. However, in the event that an ADI draws on the liquidity facility, the Bank's balance sheet would expand as the ADI would deliver securities against the funds provided. The facility has been designed so as to not impair the Bank's ability to manage system liquidity or implement the Board's monetary policy decisions.

# **Domestic Market Operations**

The Reserve Bank Board's operational target for monetary policy is the cash rate – the rate at which banks borrow and lend to each other on an overnight, unsecured basis. In order to meet the Board's target, the Bank operates within financial markets to maintain an appropriate level of exchange settlement (ES) balances. Approximately 60 financial institutions operate ES accounts at the Reserve Bank. Balances held within these accounts are liabilities of the Reserve Bank and are used by financial institutions to settle their payment obligations with each other and with the Bank. The Reserve Bank pays interest on ES balances at a rate 25 basis points below the cash rate target. ES account holders are not permitted to overdraw their accounts, although the Bank stands ready to advance funds overnight to ES account holders, against securities, at an interest rate 25 basis points above the cash rate target. This provision of funds is done via repo, whereby the Bank purchases securities that the ES account holder agrees to repurchase on the following business day. In general, these transactions are undertaken only when banks have experienced unforeseen payments flows late in the day and are unable readily to source covering funds. During 2011/12, the overnight repo facility was accessed on just five occasions, similar to its usage in the preceding two years.

## **Usage of Overnight Standing Facility**

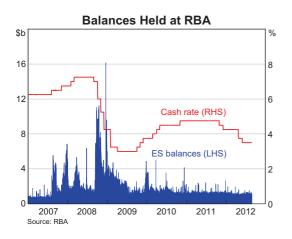
	Number of times used	Value (\$m)
2006/07	24	3 589
2007/08	18	4 220
2008/09	15	3 257
2009/10	5	1 035
2010/11	2	363
2011/12	5	1 103

Source: RBA

The Board lowered its target for the cash rate four times during the past year – at the November, December, May and June Board meetings - from 4.75 per cent to 3.5 per cent. By setting the rate for overnight repos and the rate paid on ES balances at constant spreads to the cash rate target, the Reserve Bank is not required to alter the supply of ES balances as the target rate changes. Over the past year, aggregate ES balances were generally around \$11/4 billion, a similar level to the previous year. Only on isolated occasions, such as over the end of the year, did the Bank need to accommodate an increase in demand for ES balances by allowing the supply to rise. Notwithstanding various periods of market turbulence, the Bank did not observe any precautionary increase in demand for ES balances. During 2011/12, the cash rate traded at the Board's target on all business days.

Although the level of ES balances is reasonably constant, the Reserve Bank needs to transact in the market on almost every business day in order to achieve this outcome. As payment flows between ES account holders and the Bank's customers, principally the Australian Government, alter the aggregate level of ES balances, the

Bank needs to offset the impact of this activity (see 'Domestic Market Operations and Liquidity Forecasting' in the December 2010 *Bulletin*). As part of this, the Bank undertakes repos in domestic securities, makes outright purchases of domestic securities and executes foreign exchange swaps. As the size of the payments across the Government's account is not always known with certainty, the Bank is sometimes required to conduct a second round of dealing on the same business day. In the past year, unexpected liquidity flows resulted in the Bank conducting a second round of dealing on four occasions.



Most of the Reserve Bank's transactions within the domestic market are contracted as repos. In its market operations, the Bank is willing to purchase both government-related debt securities ('general collateral') and private debt securities under repo. To protect against a fall in the value of the security in the event that the counterparty to the transaction is not able to repurchase its security at the agreed time, the Bank requires the value of the security to be higher than the cash lent by a percentage of the security's initial price. These percentages (or 'haircuts') were reviewed during 2011/12, with a revised schedule introduced in February 2012. The haircuts used now range from 1 to 23 per cent, increasing with the risk profile of the security used.

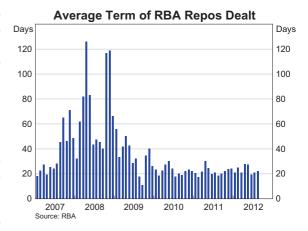
Over the past year, the value of securities held under repo has ranged between \$15 billion and \$36 billion as the Reserve Bank's balance sheet has fluctuated with movements in government deposits. Although government-related securities continue to account for the larger share of the securities held under repo, certain classes of these securities have diminished in relative importance. In particular, with a significant amount of the government-guaranteed debt issued by the ADIs during the financial crisis having matured, the Bank is now purchasing less of this debt under repo.

#### Australian Dollar Securities Held under Repurchase Agreements

	June 2010		June 2011		June 2012	
	\$ billion	Per cent of total	\$ billion	Per cent of total	\$ billion	Per cent of total
General collateral						
– CGS	3.3	9	3.9	18	8.5	35
– Semis	10.8	31	8.7	41	8.6	35
– Supras	2.2	6	2.0	10	0.6	2
– Government guaranteed	5.6	16	4.0	19	0.3	1
Private Securities						
– ADI issued	8.8	25	1.2	5	5.6	23
– RMBS	3.6	10	1.5	7	0.8	3
– Other	0.5	1	0.0	0	0.0	0
Total	34.8		21.4		24.4	

Source: RBA

The average term of the repos contracted by the Reserve Bank in its market operations has been stable during the past year at around three to four weeks. During the financial crisis, the Bank extended the term of its dealing to accommodate a heightened demand for longer-term funding within the domestic money market. In the past year, although global financial markets were at times guite unsettled, the domestic money market continued to function smoothly and the Bank did not need to modify its operations, either in terms of the maturity of its repo operations or the size of its liquidity provision. While the Bank remains willing occasionally to deal for longer terms, short-term repos generally provide the Bank with the appropriate degree of flexibility to manage its balance sheet.



To better gauge the structure of the domestic repo market, and the Reserve Bank's role within it, the Bank has instituted a quarterly survey of repo and bond dealers, the results of which are shared with survey respondents. The survey collects data on the size of dealer positions in government-related securities including, for repo dealers, information on the type of counterparty. The most recent survey suggests that the size of the repo market in government-related securities is around \$80 billion. For details of the inaugural survey, see 'The Repo Market in Australia' in the Bank's December 2010 Bulletin.

In addition to repurchase transactions, the Reserve Bank is willing to purchase short-term Commonwealth Government securities (CGS) and semi-government securities on an outright basis as part of its management of system liquidity. Large CGS maturities potentially have a significant impact on system liquidity as funds are paid out of the Australian Government's account to the holders of the bonds. During 2011/12, to offset the liquidity impact of the \$14 billion maturity of the April 2012 CGS, the Bank purchased a large quantity of the bond ahead of its maturity date, some of which was on-sold to the Australian Office of Financial Management (AOFM) at the prevailing market price. The Bank also structured a large volume of its repos and foreign exchange swaps to mature on the same date as the bond. Consequently, any addition to ES funds brought about by the bond's maturity was offset by the Bank receiving ES funds in exchange for the return of securities or foreign exchange that it had previously purchased.

Outright purchases of longer-term semi-government securities are transacted through separate, less regular, operations. During 2011/12, the Bank conducted four 'long-dated' operations, purchasing \$100 million on each occasion. At present, the Bank holds around \$3 billion of longer-dated securities on an outright basis, almost all of which has been issued by the semi-government authorities. The size of this portfolio has remained relatively constant over recent years.

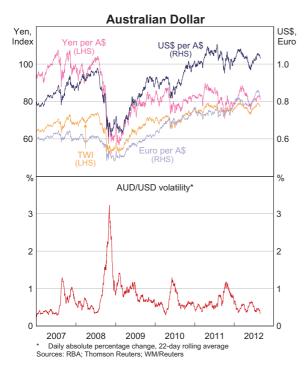
On behalf of the AOFM, the Reserve Bank operates a lending facility for CGS. This facility allows market participants to borrow specific lines of CGS via a repo with the Reserve Bank. An offsetting repo in other CGS or government-related securities is transacted at the same time to offset the impact on system liquidity. As the spread between the two repo rates is significant for the Bank's counterparty (300 basis points), the facility is used only as a last resort by dealers to avoid settlement fails. Only \$2.5 billion of CGS was lent through the facility in 2011/12, as dealers were almost always able to source the required securities within the market.

## Foreign Exchange Operations

The Reserve Bank undertakes transactions in the foreign exchange markets as a result of foreign exchange services it provides to its clients, management of its portfolio of foreign currency assets and policy operations. Client transactions account for the bulk of this activity by number of transactions (but not by value). The vast majority of client transactions arise from the provision of foreign exchange services to the Australian Government. In the normal course of events, the Bank covers its sales of foreign currency to the Government by purchasing foreign currency in the market. At times of market stress, the Bank can draw on its foreign currency holdings to meet demand from the Government, delaying the impact of these flows on the market. In 2011/12, the Reserve Bank sold \$7.3 billion of foreign currency to the Australian Government. All of these transactions were covered in the market. The last time such transactions were funded temporarily from foreign currency reserves was in late 2008.

Management of the currency risk on its portfolio of foreign currency assets also requires the Reserve Bank to transact in the foreign exchange market. As discussed below, the foreign currency assets on the Bank's balance sheet are managed to a benchmark. The foreign currency risk of these assets is managed to fixed targets, with actual positions rebalanced to these targets daily. These rebalancing transactions involve the Bank operating in both the foreign exchange spot and swap markets.

The Reserve Bank is also active in the foreign exchange swap market as a result of its domestic liquidity management responsibilities. For many years, the Bank has supplemented its daily market operations in repos with foreign exchange swaps. These transactions can be used in the same way as repos to reshape the profile of domestic liquidity flows into and out of the system. The market for foreign exchange swaps is larger and more liquid than the market for domestic repos and provides the Bank with a valuable additional tool for managing liquidity in its domestic operations. The Bank's use of foreign exchange swaps has no implications for the value of the Australian dollar.



Some transactions undertaken by the Reserve Bank are intended to influence the exchange rate or conditions in the market for foreign exchange. Such transactions, commonly described as foreign exchange intervention, are typically undertaken in the spot market. Intervention by the Reserve Bank has become less frequent as the market has developed, hedging foreign currency risk has become more efficient, and as awareness of the benefits of a floating exchange rate regime has grown. Nevertheless, the Bank retains discretion to intervene to address dislocated markets and gross misalignments of the exchange rate. The Bank did not undertake any such transactions in 2011/12. Despite periodic spikes in volatility in response primarily to offshore developments, particularly in late 2011, the Australian foreign exchange market functioned effectively through the year. The last time the Bank intervened was in late 2008. The Bank now provides daily data (with a lag) on foreign exchange intervention on its website.

Finally, the Reserve Bank also operates in the foreign exchange market from time to time to manage the level of its foreign currency holdings. Traditionally, this has involved the Bank offsetting changes in its holdings as a result of intervention. To the extent that these transactions involve a change in the net foreign currency position of the Bank, they qualify technically as intervention. In practice, however, they differ from intervention transactions in that they are executed in a way that minimises their impact on the exchange rate and on market conditions more generally. They are typically executed in small amounts over long periods.

## Reserves Management

With the exception of its reserve position at the IMF (see above), Australia's holdings of foreign currency official reserve assets and gold are held on the balance sheet of the Reserve Bank. The Bank holds foreign currency assets mainly to facilitate policy operations in the foreign exchange market, although they are also used to augment operations in domestic cash markets (see above). Assets denominated in foreign currencies expose the Bank's balance sheet to foreign currency risk in addition to the interest rate, credit and liquidity risks faced on the Bank's portfolio of domestic securities (see the Chapter on 'Risk Management'). The optimal level of reserves represents a trade-off between these risk exposures and what is considered necessary to meet policy objectives.

The mandate under which reserves are managed requires investment in assets of the highest credit quality and that the portfolio has sufficient liquidity to meets its policy objectives. The major risks to the balance sheet are mitigated where possible, chiefly through maintaining a diversified currency composition. The investment process is guided by an internal benchmark, which represents the Reserve Bank's best estimate of the combination of foreign currencies and foreign currency assets that maximises return over the long run, subject to an acceptable level of risk and the overarching requirements for security and liquidity.

The current benchmark has a currency and asset allocation of 45 per cent to the United States, 45 per cent to Europe, 5 per cent to Japan and 5 per cent to Canada. The most recent change to the benchmark currency composition was the addition of the Canadian dollar in 2010 alongside a comparable reduction in the share of the Japanese yen. The Canadian benchmark portfolio has a target duration of 18 months but this is yet to be implemented owing to the low level of yields. Canadian investments currently have a duration of around six months

#### **Benchmark Portfolio**

	US	Europe	Japan	Canada
Asset allocation (per cent of total)	45	45	5	5
Currency allocation (per cent of total)	45	45	5	5
Duration (months)	18	18	12	18

Source: RBA

Investments within the benchmark currencies are limited to sovereign, quasi-sovereign and supranational debt instruments, and cash investments secured by high-quality debt under repos. Sovereign credit exposures are limited to the United States, Germany, France, the Netherlands, Canada and Japan.

Over 2011/12, the return on foreign currency assets measured in Special Drawing Rights was 1.5 per cent, considerably below the average return over the past decade. This outcome was primarily due to the very low level of global bond yields, which depressed interest earnings. In some markets, yields reached their lowest levels in the post-war period and at the end of June 2012 the running yield on the portfolio was just 0.3 per cent. Mark-to-market capital gains on bonds made the largest contribution to returns.

## **RBA Security Holdings**

A\$ million, June 2012

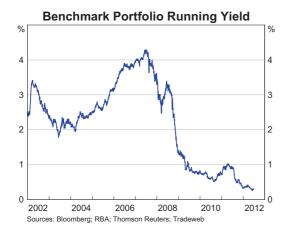
Issuing government	Securities held outright	Securities held under repurchase agreements <sup>(a),(b)</sup>	Funds held at central banks
US	7 935	6 243	543
Germany	6 686	834	_
France	1 818	1 609	_
Netherlands	321	509	23
Canada	1 625	-	4
Japan <sup>(c)</sup>	5 580	1 480	9
Supra-national	921	_	_
Total	24 886	10 674	579

(a) Includes securities issued by US government sponsored agencies

(b) Includes \$4.46 billion of securities held under repo for domestic liquidity management purposes

(c) Japanese securities held outright include Treasury bill holdings of A\$3.99 billion to hedge FX swaps

Source: RBA



The Reserve Bank also has investments in a number of Asian debt markets through participation in the EMEAP Asian Bond Fund (ABF) Initiative. This was established to assist in the development of bond markets in the region in the wake of the Asian currency crisis in the late 1990s. The Bank has modest holdings in both the US dollar-denominated fund, ABF1, and the local currency-denominated fund, ABF2. At the end of June 2012, the total allocation of reserves to these funds was \$423 million. The return on these investments over 2011/12 was 4.2 per cent when measured in US dollar terms. The two funds are managed by external managers and sit outside the Bank's internal reserves benchmark framework.

Gold holdings at the end of June 2012 were around

80 tonnes, unchanged from the previous year. Gold prices rose by 12 per cent in Australian dollar terms in 2011/12, lifting the value of the Bank's holdings of gold by around \$0.4 billion to \$4.0 billion. Activity in the gold lending market remained subdued over the year. Income earned on secured gold loans was little changed from the previous year at \$0.2 million. At the end of June 2012, there was just 1 tonne of gold on loan.

## Rates of Return in Local Currency by Portfolio

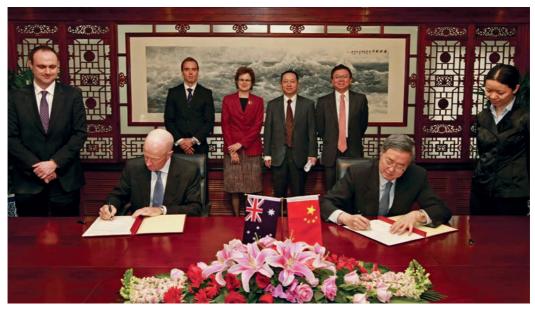
Per cent

	US	Europe	Japan	Canada
2005/06	1.2	0.1	-0.9	_
2006/07	5.6	2.2	1.1	_
2007/08	8.1	4.0	1.7	_
2008/09	5.2	8.1	1.8	_
2009/10	2.3	2.7	0.8	_
2010/11	1.1	0.4	0.2	1.0
2011/12	2.1	2.9	0.4	1.1

Source: RBA

## **Bilateral Currency Swap**

In March 2012, the Reserve Bank signed a bilateral local currency swap agreement with the People's Bank of China (PBC). The agreement allows for the exchange of local currencies between the two central banks of up to A\$30 billion or CNY200 billion. It is for an initial period of three years and can be activated by either party. The main purposes of the swap agreement are to support trade and investment between Australia and China, by providing a backup source of local currency liquidity, and to strengthen bilateral financial cooperation. The agreement reflects the increasing opportunities available to settle trade between the two countries in Chinese renminbi (RMB) and to make RMB-denominated investments. This arrangement should offer increased confidence to both Australian firms wishing to contract their trade in RMB terms and their banks in arranging settlement. The signing of this agreement by Governor Glenn Stevens and PBC Governor Zhou Xiaochuan took place at a ceremony in Beijing.



Governor Glenn Stevens and PBC Governor Zhou Xiaochuan signing the swap agreement at a ceremony in Beijing, in the presence of the RBA's representative in China, Ivan Roberts (far left) and the PBC's Lü Tingting (far right); behind them are the RBA's Mark Hack, Frances Adamson (Australia's Ambassador to China), Song Xiangyan, PBC Deputy Director-General, International Department, and Li Bo, PBC Director-General, Monetary Policy Department II