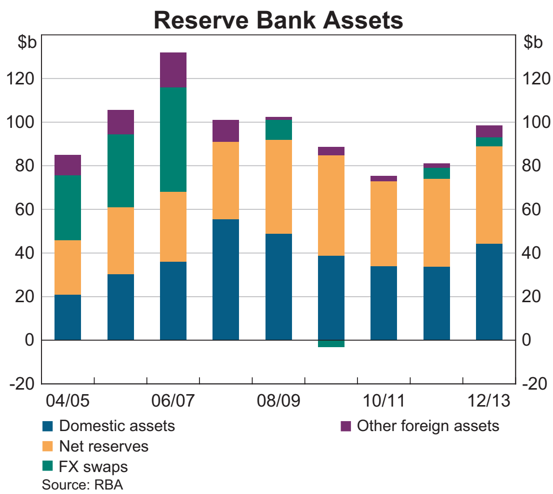
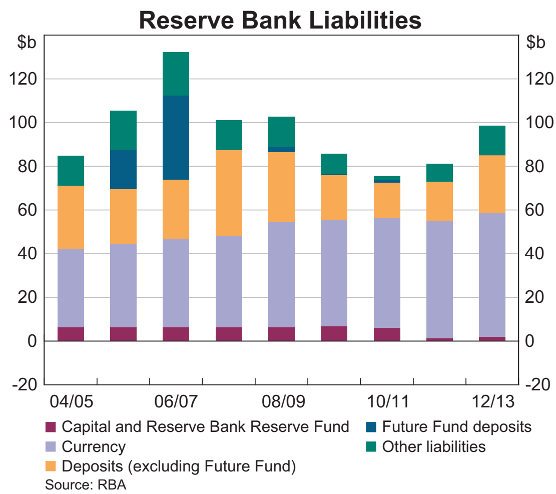
Operations in Financial Markets

The Balance Sheet

The Reserve Bank undertakes daily transactions in both 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 and foreign central banks). The structure of the Bank's balance sheet is influenced by these transactions and by the Bank's role in issuing Australia's banknotes.

The Bank's balance sheet grew by around $18 billion over 2012/13, to $99 billion. The increase in liabilities was mainly due to increased deposits and issuance of banknotes. Deposits held by the Australian Government increased by around $5 billion. These deposits are used by the Government to manage the timing of its receipts and outlays, and can vary considerably over the course of a year. Over 2012/13, banknotes on issue grew broadly in line with the size of the economy.





The rise in liabilities was matched on the balance sheet by increased holdings of domestic securities under reverse repurchase agreements (repos), as well as an increase in foreign currency-denominated assets. The Australian dollar value of net foreign exchange reserves held on the balance sheet increased by $5 billion over the year to $45 billion. This primarily reflected valuation gains of $3.6 billion resulting from the recent depreciation of the exchange rate. The Australian dollar depreciated by 12 per cent against the euro and 9 per cent against the US dollar, the main currencies in which the Bank holds its portfolio of foreign exchange reserves. At the end of June, the Reserve Bank also held $4 billion of foreign currency assets sourced via foreign exchange swaps against Australian dollars; these swaps were undertaken to assist with domestic liquidity management (see below). In total, the gross level of foreign exchange reserves held by the Bank stood at $49 billion at the end of June. Taking into account Australia's reserve position at the International

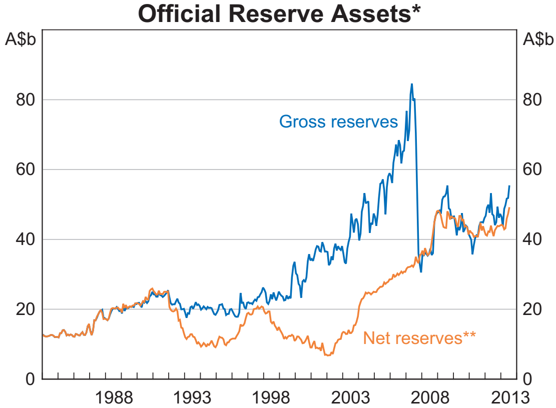
Reserve Bank Balance Sheet
$ billion

	June 2011	June 2012	June 2013
Assets	*75*	*81*	*99*
Foreign	41	47	54
– Net reserves[(a)]	39	40	45
– Foreign exchange swaps	0	5	4
– Other[(b)]	2	2	5
Domestic	34	34	44
Liabilities	*75*	*81*	*99*
Deposits	18	18	26
Currency	50	54	57
Capital and Reserve Bank Reserve Fund	6	1	2
Other (including capital)	2	8	13

(a) Excludes Australia's reserve position at the International Monetary Fund
(b) On a contractual basis; official reserve assets include foreign exchange swaps on a market basis (refer Note 15)
Source: RBA

Monetary Fund (which is an asset of the Australian Government not captured on the Bank's balance sheet), Australia's overall official reserve assets were $52 billion.

Official Reserve Assets*

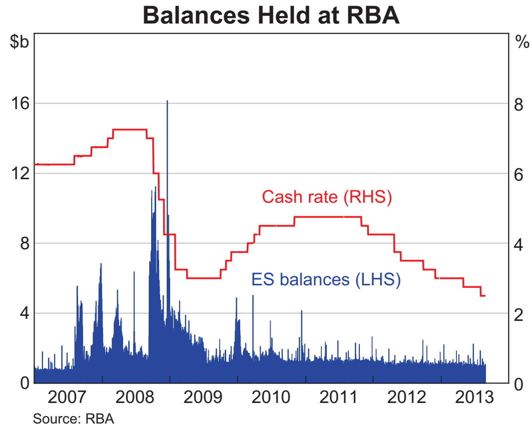


* Includes Australia's reserve position at the International Monetary Fund
** Net reserves exclude FX swaps
Source: RBA

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. The Board lowered its target for the cash rate four times during the past year – at the October, December, May and August Board meetings – from 3.5 per cent to 2.5 per cent. To meet the Board's target, the Reserve Bank operates in financial markets to maintain an appropriate level of exchange settlement (ES) balances. ES balances are liabilities of the Bank and are used by financial institutions to settle their payment obligations with each other and with the Bank. Of the 130 or so financial institutions that are members of the Reserve Bank Information and Transfer System (RITS), almost half operate ES accounts. The Bank pays interest on ES balances at a rate 25 basis points below the Board's cash rate target. ES account holders are not permitted to overdraw their accounts, although the Bank is willing to advance overnight funds, against appropriate securities, to account holders at an interest rate 25 basis points above the cash rate target. These funds are provided via reverse repos, whereby the Bank buys securities that the ES account holder agrees to repurchase on the following business day. In general, such overnight repos are undertaken only when banks have to meet unforeseen payments late in the day and are not able to source funds elsewhere. During 2012/13, the overnight repo facility was accessed only twice.

These arrangements create the incentive for account holders to recycle their settlement balances in the interbank market. With the rate for overnight repos and the rate paid on ES balances set at a constant margin to the cash rate target, the Reserve Bank does not need to alter the supply of ES balances to guide the cash rate towards a new target level. Over the past year, aggregate ES balances were generally around $1 billion, slightly below their average of the previous year.



To monitor where the cash rate has traded, each business day the Reserve Bank collects data from ES account holders on their cash market activity. Prior to March 2013 around 25 banks had participated in the survey and, as these banks were the major participants within the market, the survey captured over 95 per cent of activity. Since March, all banks that operate ES accounts have been required to submit details of their unsecured borrowing and lending in the overnight interbank market. Each business day, the Bank publishes data on the total volume of transactions in the cash market and the weighted-average rate at which those transactions were executed. Aggregate activity within the cash market has averaged around $5 billion each day over the past year. The weighted-average cash rate was equal to the Board's target on all days.

Payments between ES account holders and the Reserve Bank's customers (principally, the Australian Government) alter the supply of ES balances. In order to offset the impact of its clients' transactions and ensure the aggregate ES balance remains at an appropriate level, the Bank generally needs to transact in the market on a daily basis. The Bank announces its dealing intentions in the domestic securities market each morning at 9.30 am. (Separate to these operations, the Bank occasionally uses FX swaps to supply or withdraw ES balances; see below.) Those RITS members wishing to participate in the Bank's open market operations have a 15 minute window in which to approach the Bank. Currently, these approaches are made by telephone, although the Bank intends to move its open market operations onto an electronic platform in the coming year.

Most of the Reserve Bank's transactions in the domestic market are contracted as repos. Under reverse repo, the Bank is willing to purchase both government-related debt securities ('general collateral') and private debt securities. To protect against a decline in the value of these securities should the Bank's counterparty not be able to meet its repurchase obligation, the Bank requires the value of the security to exceed the cash lent by a certain margin. These margins are higher for private securities than for government-related securities and are listed on the Bank's website (http://www.rba.gov.au/mkt-operations/resources/tech-notes/eligible-securities.html).

Domestic securities purchased by the Reserve Bank are held in an account that the Bank maintains in Austraclear, the ASX's securities depository. In April, the Bank agreed to become a Foundation Customer of ASX Collateral, a collateral management service that will allow the ASX to act as tri-party agent to the Bank's repos. As agent, the ASX will be responsible for ensuring that securities delivered to the Bank's Austraclear account are appropriately valued and meet the Bank's eligibility requirements. Tri-party arrangements can make it easier for those with large numbers of small-denomination holdings to fund their securities via repo. As agent, the ASX will also offer optimisation tools that can determine the most efficient allocation of securities against each exposure that a user is managing. While the Bank expects to settle its first tri-party repo by early 2014, counterparties will have the option of continuing with existing arrangements – confirming each individual security and its value bilaterally with the Bank prior to settlement.

Over the past year, as the Reserve Bank's balance sheet has fluctuated with movements in government deposits, the value of securities held under reverse repo has ranged between $17 billion and $37 billion. With the stock of repos outstanding in the domestic market generally around $100 billion, the Bank's operations comprise a significant share of this market. The most active users of repo tend to be the fixed-income trading desks of banks and securities firms seeking to finance their inventories of Commonwealth Government Securities (CGS) and semi-government securities (semis). Reflecting this, around three-quarters of the securities held by the Bank are government related. The average term of reverse repos contracted via open market operations over the past year was around three weeks, similar to recent years.

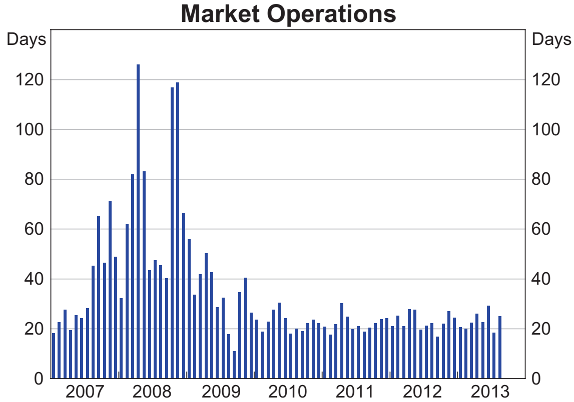
Australian Dollar Securities Held under Repurchase Agreements

	June 2011		June 2012		June 2013	
	$ billion	Per cent of total	$ billion	Per cent of total	$ billion	Per cent of total
General collateral						
– CGS	3.9	18	8.5	35	15.5	42
– Semis	8.7	41	8.6	35	9.4	30
– Supras	2.0	10	0.6	2	1.4	4
– Government guaranteed	4.0	19	0.3	1	0.2	1
Private Securities						
– ADI issued	1.2	5	5.6	23	8.0	19
– RMBS	1.5	7	0.8	3	0.6	4
– Other	0.0	0	0.0	0	0.0	0
Total	21.4		24.4		35.2	

Source: RBA

As payments across the Government's account with the Reserve Bank cannot always be known with certainty in advance, on some days the Bank is required to conduct a further round of dealing after its 9.30 am operations. Since June 2012, unexpected liquidity flows resulted in the Bank conducting a second round of dealing on six occasions, generally late in the day.

Average Term of Repos in Open Market Operations



Source: RBA

The forthcoming shift to settling certain low-value transactions on a same-day basis (discussed in the chapter on 'Banking and Payments') will make the task of forecasting payment flows more difficult for both the Reserve Bank and ES account holders, especially as some of these payments will settle after the interbank cash market has closed. To ensure that these changes to the payments system do not impair the Bank's ability to implement monetary policy, certain aspects of its operational framework will be modified.

Under current arrangements, ES account holders can obtain term funding against securities via the Reserve Bank's open market operations. They are also able to access intraday funds from the Bank via a type of repurchase transaction known as an 'RBA Repo'. These repos are available without an interest charge and provide a means by which participants in a real-time gross settlement (RTGS) system can meet payments across the day in advance of funds being received. Failure to unwind an RBA Repo on the same day it is contracted results in an interest charge set at 25 basis points above the cash rate target (the overnight repo facility discussed above).

From November 2013, ES account holders will be able to contract RBA Repos on an 'open' basis, i.e. without a maturity date. Up to a limit specified for each account holder, these open repos will accrue interest at the cash rate target. The compensation of ES balances will also be altered. To the extent that account holders retain matching funds against their open repo position, those ES balances will be compensated at the cash rate target. In net terms then, there need be no cost to holding an open repo position. However, as is the case currently, surplus ES funds will earn a rate 25 basis points below the cash rate target, while any shortfall in funds below the account holder's open repo position will incur a 25 basis point penalty, although an allowance will be made for variations in ES balances arising from certain low-value payments that settle during the evening.

These arrangements will preserve the incentive for ES account holders to participate in the interbank cash market while it is open, lending surplus balances or borrowing against a shortfall. At the same time, they will allow those account holders participating in low-value payment streams to hold sufficient liquidity to meet payment obligations arising after the close of the cash market. Similarly, recipients of late payments will not be penalised for their inability to recycle these funds in the interbank market immediately.

In aggregate, it is anticipated that ES account holders will establish open positions in RBA Repos between \$20 and \$30 billion, expanding the Reserve Bank's balance sheet by a corresponding amount. Securities that are eligible for term repos contracted in the Bank's open market operations may also be used for RBA Repos, with the same margins imposed. However, while it is only in extraordinary circumstances that the Bank is willing to purchase self-securitised assets in its open market operations (the last occasion being at the height of the global financial crisis in late 2008 and 2009), from November 2013 ES account holders will be able to use such related-party assets for RBA Repos.

When the Basel III liquidity standards are introduced in January 2015, an ES account holder will only be able to contract RBA Repos at the cash rate target using securities that are consistent with the Australian Prudential Regulation Authority's (APRA's) liquidity policy for that institution. Specifically, banks will be required to hold a quantity of 'high-quality liquid assets' (HQLA) sufficient to withstand a 30-day period of stress. In the domestic securities market, only CGS and semis have been recognised as HQLA by APRA. As discussed in the 2012 Annual Report, owing to a shortage of CGS and semis relative to banks' liquidity needs, the Reserve Bank will introduce a committed liquidity facility (CLF) from January 2015. Under this facility, ES account holders will be able to obtain a commitment from the Bank to provide a certain amount of funding via RBA Repo, with a per annum fee of 15 basis points payable on the size of the Bank's commitment. This will mean that securities eligible for RBA Repo (including self-securitisations) may fulfil APRA's liquidity requirements where an institution has subscribed to the CLF. (Further details on the CLF are available from the Bank's website at: http://www.rba.gov.au/mkt-operations/resources/tech-notes/liquidity-facilities.html.)

In January 2015, the Reserve Bank will also introduce new eligibility requirements for residential mortgage-backed securities (RMBS) used in repurchase agreements with the Bank. Issuers of RMBS will need to complete and make publicly available detailed reporting templates that cover both transaction-related data as well as information on the underlying assets. These templates were made available for public consultation in late 2012 and have now been finalised. The information contained in these templates will assist the Bank in managing its potential exposure to these assets should a counterparty default on its repurchase obligation. Reporting templates for certain other asset-backed securities eligible for repo with the Bank will be introduced at a later stage.

Maturities of CGS are generally the largest transactions undertaken by a client of the Reserve Bank. To manage their impact on system liquidity, the Bank needs to reduce or otherwise offset the large volume of funds that are paid out of the Australian Government's account into banks' ES accounts (for the credit of the security holder) on the maturity date. The Bank generally uses three instruments to do this: reverse repos and FX swaps (both contracted to unwind on the same day as the CGS maturity) as well as outright purchases of the CGS just ahead of its maturity date. To offset the liquidity impact of the $17 billion maturity of the May 2013 CGS (the largest government bond maturity to date), the Bank purchased almost $7 billion of the bond in the 12 months preceding its maturity. The Bank also transacted a large volume of reverse repos and FX swaps that matured on the same date as the bond, thereby fully sterilising the impact of the CGS maturity.

In addition to CGS, the Reserve Bank is willing to hold semis on an outright basis in its domestic portfolio. At present, the Bank holds around $2 billion of long-term securities on an outright basis, almost all of which have been issued by the semi-government authorities. This is slightly below the level of earlier years.

On behalf of the Australian Office of Financial Management (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. The cash received by the Bank in the repo accrues interest at a rate 300 basis points below the cash rate target, or 25 basis points, whichever is the greater. An offsetting repo in other CGS or government-related securities is transacted at the same time to ensure there is no impact on ES balances. The rate earned by the Bank on cash invested in that repo is set at the cash rate target. The expense of the facility means that it is used only as a last resort by dealers to avoid failing on securities settlements with their counterparties. Less than $400 million of CGS was lent through the facility in 2012/13, as dealers were almost always able to source the required securities in the market.

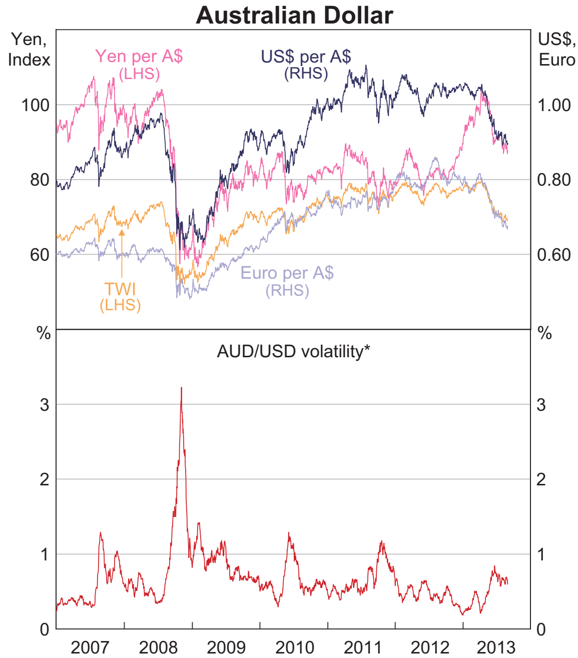
Foreign Exchange Operations

The Reserve Bank is an active participant in the foreign exchange market. The majority of its transactions (by number) reflect the management of positions arising from client business. The Bank's largest client, by far, is the Australian Government. In 2012/13, the Bank sold $6.1 billion of foreign currency to the Australian Government. These sales were funded, as they normally are, by the Bank purchasing foreign currency in the spot market. At times of extreme stress in the foreign exchange market, the Bank can elect to fund these flows temporarily from foreign currency reserves. These reserves are replenished at a later time when market conditions have normalised. The last time this occurred was in late 2008.

Foreign exchange swaps are undertaken for several reasons, but the majority (by value) reflect transactions undertaken to assist with domestic liquidity management. They can be used in the same way as repos in securities to manage system liquidity (see above). The Reserve Bank's foreign exchange swap transactions have an important role in managing the liquidity impact of large flows, such as bond maturities, because the swap market is larger and more liquid than the domestic repo market. In 2012/13, turnover in swaps undertaken for liquidity management purposes totalled $58.7 billion.

The Reserve Bank also operates in the foreign exchange market to manage its foreign currency reserves. As discussed below, the foreign currency assets on the Bank's balance sheet are managed to a benchmark. The currency, asset allocation and interest rate risk on these investments are rebalanced to benchmark targets.

Currency risk in particular is rebalanced on a daily basis. To manage the associated currency flows, the Bank executes foreign currency transactions in both the foreign exchange spot and swap markets. The Bank also uses foreign exchange swaps from time to time to assist with the management of the cash holdings of the Bank's foreign currency reserves portfolios. Finally, the Bank can transact in foreign exchange markets to manage the composition of its foreign currency holdings. During 2012/13 these operations included transactions in the spot market to effect a change to the weights of the US dollar and the euro in the currency benchmark (for more details see below).



* Daily absolute percentage change, 22-day rolling average
Sources: RBA; Thomson Reuters; WM/Reuters

Although Australia operates a floating exchange rate regime, the Reserve Bank retains discretion to undertake transactions in the foreign exchange market to address market dislocation and severe misalignments of the exchange rate. These types of transactions are usually referred to as foreign exchange intervention. Such activity has become less frequent over the years as the market has developed and hedging activity has become more widespread and efficient. Further information on the evolution of the Bank's approach to foreign exchange intervention can be found on the Bank's website at: http://www.rba.gov.au/publications/bulletin/2011/dec/7.html.

The Reserve Bank did not undertake any transactions in the market in 2012/13 to affect the level of the exchange rate directly or market conditions more generally. Volatility in the foreign exchange market was very low through much of the financial year. This changed in the June quarter with the depreciation of the Australian dollar. This adjustment was accommodated without significant deterioration in conditions in the foreign exchange market. Volatility rose but remained at a moderate level overall.

Although the Reserve Bank did not intervene directly in the foreign exchange market in 2012/13, it did accumulate foreign currency assets. In this case, the Bank was approached by a client looking to acquire Australian dollars and sell US dollars as part of its portfolio diversification program. With the Australian dollar trading above the Bank's assessment of fair value for the currency at the time, the Bank decided to retain the foreign currency acquired in the transactions in its foreign currency reserves portfolio. This decision avoided the purchase placing additional upward pressure on the exchange rate.

During the year, the Reserve Bank strengthened the risk mitigation offered by the use of ISDA Master Agreements on its foreign exchange forward and swap transactions by entering into two-way Credit Support Annexes (CSAs). A CSA defines the rules under which previously agreed collateral is exchanged between counterparties. The collateral exchange is designed to offset the daily change in the value of outstanding foreign exchange forward and swap transactions, reducing the potential cost involved in replacing the contract in the event of a counterparty default. Further detail can be found in the chapter on 'Risk Management'.

Reserves Management

With one exception, all of Australia's official reserve assets are held on the balance sheet of the Reserve Bank. These include Australia's holdings of foreign currency assets, gold and Special Drawing Rights (SDRs), a liability of the International Monetary Fund (IMF). The exception is Australia's reserve position at the IMF, which is an asset of the Australian Government.

The Reserve Bank holds foreign currency assets primarily to facilitate policy operations in the foreign exchange market (see above) and has responsibility for managing the level and composition of those assets. These assets expose the Bank's balance sheet to foreign currency risk as well as interest rate and credit risk. Hence, the Bank holds the minimum level of reserves that it assesses will allow it to meet expected policy requirements.

For a given level of reserves, the Reserve Bank attempts to mitigate the risks to the balance sheet where possible, chiefly through maintaining a diversified currency composition and investing in assets of high credit quality. The policy objectives of the foreign currency portfolio also require that a large proportion of investments are highly liquid. The investment process itself is guided by a benchmark, which represents the Bank's assessment of the combination of foreign currencies and foreign currency assets that maximise return over the long run, subject to an acceptable level of currency, interest rate, credit and liquidity risk. This benchmark is reviewed from time to time to take account of changes in the Bank's investment universe and risk tolerance. A number of adjustments to the benchmark were implemented early in the June quarter 2013:

- The currency and asset allocation to the euro was reduced from 45 per cent to 35 per cent and the allocation to the US dollar was increased from 45 per cent to 55 per cent. This change was undertaken to improve the liquidity and replicability of the benchmark portfolio.
- The duration targets of the US dollar and Canadian dollar benchmark portfolios were reduced from 18 months to 6 months and the duration target of the Japanese yen benchmark portfolio was reduced from 12 months to 6 months. These reductions in interest rate risk took account of the extremely low level of yields, and the associated risk of capital losses on bond holdings in the event of a return to more normal levels. The duration target of the European benchmark portfolio was unchanged at 18 months.

Benchmark Portfolio

	US	Europe	Japan	Canada
Asset allocation (per cent of total)	55	35	5	5
Currency allocation (per cent of total)	55	35	5	5
Duration (months)	6	18	6	6

Source: RBA

As previously announced in April, the Reserve Bank also plans to invest directly in Chinese government securities denominated in renminbi (RMB).[1] In December 2012, the Bank received a quota of CNY6 billion from the People's Bank of China for investment in the Chinese interbank bond market. The allocation to RMB is further recognition of the increasing financial and economic relationship between Australia and China. At a portfolio level, the allocation is expected to provide increased diversification and enhanced returns over the long run.

Investments in the benchmark currencies are limited to sovereign, quasi sovereign and supranational debt instruments as well as cash investments secured by high-quality debt under repurchase agreements. At the

1 Lowe P (2013), 'The Journey of Financial Reform', Address to the Australian Chamber of Commerce in Shanghai, 24 April.

end of June 2013, virtually all outright holdings of securities were in the form of sovereign debt. Sovereign credit exposures are currently limited to the United States, Germany, France, the Netherlands, Canada and Japan.

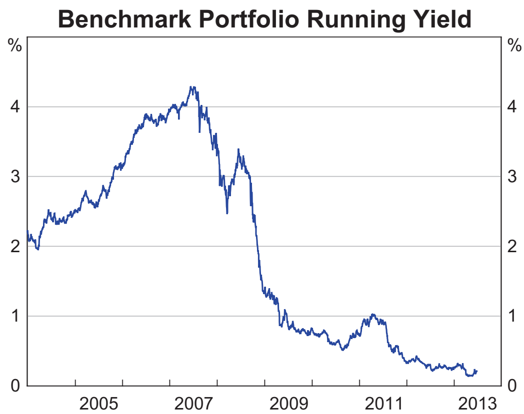
Over 2012/13 the return on foreign currency assets measured in SDR was just 1.5 per cent, well below the historical average. This reflected the low interest rate environment in the major economies, which depressed interest earnings, and mark-to-market capital losses on bond holdings owing to the increase in bond yields towards the end of the financial year. At the end of June 2013, the running yield on the portfolio was only 0.2 per cent, compared with over 4 per cent prior to the 2008/09 financial crisis.

RBA Security Holdings
A$ million, June 2013

Issuing government	Securities held outright[(a)]	Securities held under repurchase agreements[(b)]	Funds held at central banks[(c)]
United States	15 066	2 821	596
Germany	8 557	1 367	
France	1 785	846	
Netherlands	1 135	423	32
Canada	1 828		5
Japan	5 423	16	4
Supranational	253		541
Total	34 047	5 473	1 179

(a) Includes holdings of $4.4 billion funded by foreign exchange swaps
(b) Includes securities issued by US government-sponsored enterprises
(c) Includes the Bank for International Settlements
Source: RBA

Generating positive returns in the prevailing low interest rate environment has been a challenge for the Reserve Bank given its low risk tolerance. In Europe in particular, interest rates on eligible short-term investments have been negative for much of the past year. In response, the Bank has enhanced the return on the portfolio by periodically shifting some euro and US dollar reserves into Japanese yen on a fully hedged basis via the foreign exchange swap market. A positive cross-currency swap basis in favour of the yen has delivered a higher overall return on these investments.



Sources: Bloomberg; RBA; Thomson Reuters; Tradeweb

The Reserve Bank also has investments in a number of non-Japan Asian debt markets through participation in the EMEAP Asian Bond Fund (ABF) Initiative. This initiative was established in the wake of the Asian currency crisis in the late 1990s to assist in the development of bond markets in the region. The Bank has modest holdings in the US dollar-denominated fund, ABF1, and the local currency-denominated fund, ABF2. The two funds are managed by external managers and sit outside the Bank's internal reserves benchmark framework.

Rates of Return in Local Currency by Portfolio

Per cent

	US	Europe	Japan	Canada
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
2012/13	0.4	0.4	0.2	1.0

Source: RBA

At the end of June 2013 the total allocation of reserves to these funds was $467 million. The return on these investments over 2012/13 was 1.1 per cent measured in US dollar terms.

Gold holdings at the end of June 2013 were around 80 tonnes, unchanged from the previous year. Gold prices fell by 18.1 per cent in Australian dollar terms in 2012/13, reducing the value of the Reserve Bank's holdings of gold by around $0.7 billion to $3.3 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 2013 there was only 1 tonne of gold on loan.