Operations in Financial Markets

The Reserve Bank's operations in financial markets over the past year encompassed transactions undertaken for policy reasons – that is, domestic monetary policy implementation and intervention in the foreign exchange market – and transactions undertaken for clients and for the management of the Bank's balance sheet. In carrying out its financial markets operations, two main issues faced the Bank:

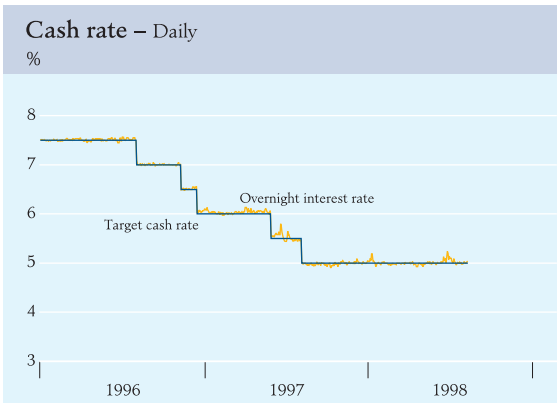
- how to conduct its domestic market operations as the Australian financial system moved towards real-time gross settlement (RTGS), and as the supply of Commonwealth Government securities (CGS), the traditional instrument used in market operations, diminished; and
- how to conduct foreign exchange intervention in a manner which permits necessary adjustment of the exchange rate, but minimises the disruption caused by short-term speculative behaviour.

In addition, the Reserve Bank had to perform the usual task of managing its foreign exchange reserves. This was made difficult because of the extraordinary financial movements that took place in Japan, where a large proportion of the portfolio is normally invested.

Domestic Dealing Arrangements

Preparation for RTGS

The primary objective of domestic market operations is to implement monetary policy, the stance of which is expressed in terms of a target for the cash rate – the interest rate on funds borrowed and lent overnight by financial institutions. The aim of domestic market operations is to supply sufficient liquid funds – Exchange Settlement (ES) funds[1] – to the banking system to maintain the cash rate around the desired level. Monetary policy was last changed on 30 July 1997, when the target for the cash rate was cut by 0.5 of a percentage point, to 5 per cent.



1 ES funds are used by banks to settle obligations among themselves and with the Reserve Bank, and take their name from ES accounts at the Reserve Bank, in which these funds are held.

Demand for ES funds by banks fluctuates from day to day, mainly in response to anticipated settlement obligations. The Reserve Bank manages the amount of ES funds available to banks by buying securities to increase (or selling securities to reduce) the supply of such funds. The bulk of the Reserve Bank's operations to implement policy are in repurchase agreements, or repos[2]. While outright purchases or sales of securities for liquidity management are most efficiently conducted in stock of less than a year to maturity, repos have the advantage of allowing the full spectrum of government securities to be tapped, since stock of any maturity can be used as collateral for a repo.

Changes to dealing arrangements in preparation for the introduction of RTGS began in mid 1996, with the abolition of the group of authorised money market dealers, through which the Reserve Bank had for almost four decades conducted money market operations. Since June 1996, all members of the Reserve Bank Information and Transfer System (RITS), the electronic system for settling transactions in CGS, have been eligible to deal with the Reserve Bank. RITS members include all the banks, as well as investment houses, insurance companies, pension and superannuation funds and nominee companies. In 1997/98, 33 counterparties participated in the Reserve Bank's domestic market operations, covering all of the major institutions in the cash market. Deals were widely spread among the group, with about half of the group undertaking more than $5 billion of transactions with the Bank during the year.

Arrangements under which banks hold their settlement funds changed further in 1997/98. In the period when authorised dealers were the main channel for Reserve Bank operations, banks held settlement balances in the form of interest-earning loans to authorised dealers; interest was not paid on balances in ES accounts. With the abolition of the authorised dealers, however, banks transferred their transaction balances to their ES accounts and it was decided that interest would be paid on these balances to encourage them not to be run down unduly.

Initially, the interest rate was set at 10 basis points below the target cash rate, in line with the typical rate banks received on loans to dealers. However, this had the effect of encouraging banks to increase their holdings of ES funds to a level higher than needed for liquidity management purposes. In June 1997, the Reserve Bank announced that from October that year it would reduce the interest rate paid on ES balances to a rate 25 basis points below the cash rate target. Thereafter, banks progressively reduced ES balances and became more active in borrowing and lending funds among themselves. By December 1997, daily ES balances averaged about $2 billion.

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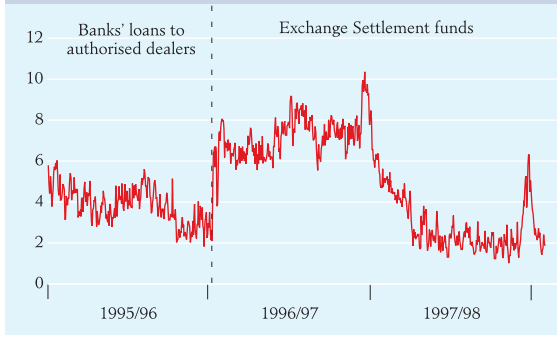
2 A repurchase agreement involves the purchase (or sale) of securities in exchange for cash, with an agreement to reverse the transaction at an agreed price on a future date. As discussed below, they have some similarities with foreign currency swaps, which involve the exchange of foreign exchange (US dollars) for cash and which are also used when necessary to manage domestic liquidity.

They remained around this level until the approach of full implementation of the RTGS system in June 1998, when banks sought the reassurance of a higher level of liquidity, and ES balances rose to about $6 billion. This episode was also one of heightened volatility in financial markets, which typically raises precautionary demand for liquidity, and occurred as the financial year-end approached, when the cash market can be volatile even in generally settled times. As these influences passed and banks grew more accustomed to operating under RTGS, ES balances declined again to around $\$2\frac{1}{2}$ billion on average by mid July.

Banks' settlement funds – Daily



In general, RTGS systems raise important issues for central banks in managing system-wide liquidity and for individual banks in managing their own liquidity. With the previous system of deferred net settlement, daily liquidity flows – both at the aggregate and bank-specific level – could be predicted quite accurately because they reflected transactions that had already happened. Payments flows under RTGS are, however, made continuously, and at the discretion of banks and their customers; as a result, the actual flow of payments is highly unpredictable. Any unanticipated fluctuation in system liquidity can be potentially disruptive. Also, since payments are made in gross, rather than net, terms, forecasting errors are apt to be larger and liquidity pressures all the greater when errors occur.

To minimise the potential for such disruption under RTGS, steps were taken to ensure the availability of adequate liquidity during the day and overnight (see box on page 32). First, as discussed in "Surveillance of the Financial System", various features have been built into the RTGS system to promote liquidity during the day. Second, on days when cash market conditions turn out to be significantly different from expectations, the Reserve Bank has been prepared to undertake a second round of dealing. In addition, in order to provide banks with confidence that funds would be available in the face of unpredictable swings in liquidity late in the day, an end-of-day borrowing facility with the Reserve Bank was introduced, which is available at banks' discretion. This is a repurchase facility for overnight funds at a rate 25 basis points above the cash rate target, and otherwise granted on the same conditions as repos undertaken in the Reserve Bank's daily liquidity operations. The introduction of each of these measures was designed to reassure markets that, under RTGS, system-wide liquidity would be kept in sufficient supply to maintain the cash rate quite steady around its announced target.

A second round of dealing was needed on 15 occasions in the period since October 1997. This was mostly due to unexpected shifts in the demand for liquidity as banks sought to increase precautionary levels of ES funds at the times when financial markets in Australia and abroad displayed heightened volatility. The frequency of second rounds of dealing rose as the RTGS system was phased in, especially in June 1998, with banks seeking to increase their settlement balances. The market has accepted that the second rounds of dealing are routine, purely for liquidity management purposes, and do not have any implications for monetary policy. It is possible that, under RTGS, a second round of dealing will occur more frequently than in the past.

Banks also used the end-of-day standby facility with increasing frequency during the period of gradual implementation of RTGS in the June quarter. Since early May, nine banks have used the facility, for an average amount of about $65 million. While the end-of-day facility is available to provide a degree of certainty to banks about the supply of end-of-day funds, and it is available at banks' discretion, the Reserve Bank sees the facility essentially as a standby and would not wish to see individual banks make significant use of it too frequently. The above-market cost of overnight funds from the standby facility is designed to discourage excessive recourse to it.

Following the phasing-in of RTGS, some changes in the within-day pattern of trading in the cash market became apparent. Traditionally, trading of cash had largely been completed by late morning each day. The convention was that overnight funds were called or renegotiated by 11.00 am each day; this led to concentration of trading around this time. With RTGS, however, banks have less certainty about their funding needs until later in the day and the period of heaviest trading seems to have moved to mid or late afternoon.

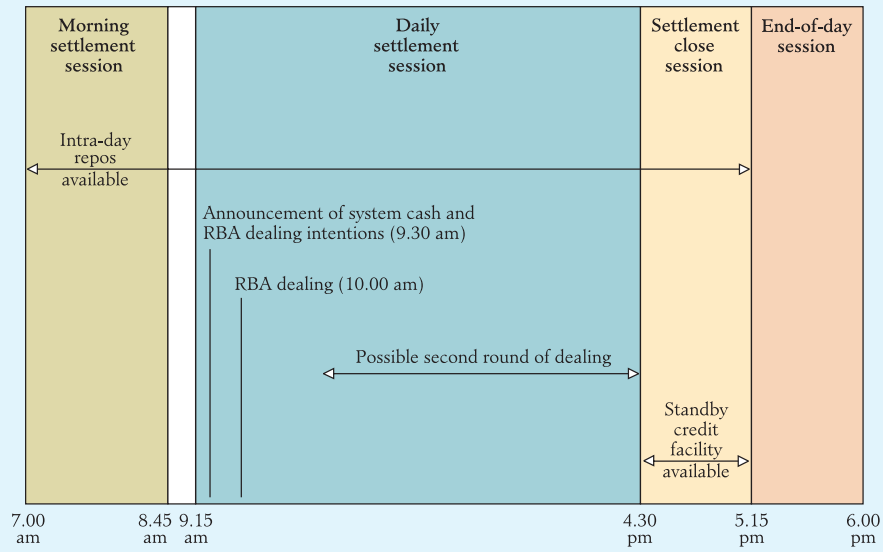
One result of this is that the market's traditional reading for the cash rate, which was based on trading for cash between 10.30 and 11.00 am each day, became less reliable as a guide to market conditions over the day. Among other problems, a reading was not consistently available at 11.00 am each day because the market was insufficiently active on some days to enable the relevant figure to be calculated. For this reason, late in June the Reserve Bank began collecting directly from banks data on the average daily interest rate paid or received on overnight funds in the interbank money market. This series is now published at the end of each day.

Reserve Bank Dealing Operations under RTGS

To promote system liquidity under RTGS, the Reserve Bank has augmented its traditional dealing arrangements. This main features of the new procedures are:

- An intra-day repurchase facility available throughout the day to provide liquidity at banks' discretion at no interest cost. The intra-day facility is available in the morning settlement session, prior to the time at which overnight paper-based transactions are settled, as well as throughout the day. Banks would typically enter an intra-day repo in anticipation of funds arriving from other sources later in the day to unwind the repo. Intra-day repos must be unwound by the end of the settlement close session at 5.15 pm.
- To promote liquidity in the financial system, the Reserve Bank makes the bulk of its payments, and those on behalf of the Commonwealth Government, to banks at the start of the morning settlement session.

The RTGS day

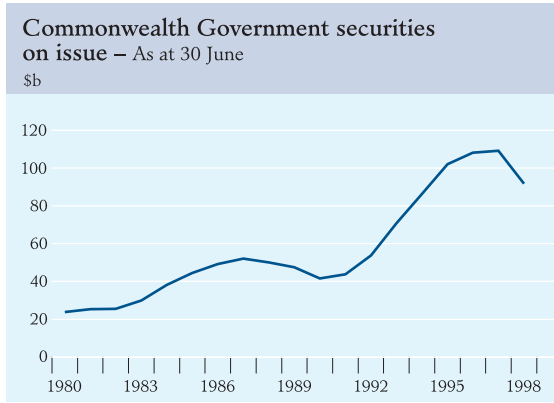


- The Reserve Bank continues to announce the system cash position and its dealing intentions at 9.30 am, early in the daily settlement session, which runs from 9.15 am to 4.30 pm. This dealing round follows the long-established procedures outlined in last year's Annual Report, with the dealing process completed by around 10.15 am.

- Since estimates of system liquidity are likely to be subject to greater forecasting error under RTGS and demand for funds might be more volatile than previously, the Reserve Bank is prepared to undertake a second round of dealing for liquidity management purposes, when cash market conditions are unexpectedly tight or easy. A second round can take place at any time during the day, but is usually conducted before 3.00 pm.
- Apart from the overnight paper-based claims discussed above, banks now finalise their settlement obligations in the settlement close session, between 4.30 pm and 5.15 pm (5.45 pm on Fridays). A bank which is short of ES funds at the end of this session has access to an overnight repo facility, at a penalty rate 25 basis points above the cash rate target. This facility is designed as a safety-valve to ensure end-of-day settlement can be completed by banks at a cost of funds near the cash rate target.

Responses to diminishing supply of CGS

While RTGS was the major force for change in dealing arrangements, the contraction in the supply of CGS, stemming from the Commonwealth's (headline) budget surplus, also had an impact. Over the year, the stock of CGS on issue fell from $109 billion to about $92 billion.



In June 1997, in anticipation of this fall, the range of securities which the Reserve Bank was prepared to accept as collateral for repurchase agreements was expanded to include Australian dollar securities issued by the central borrowing authorities of State and Territory governments, as long as they were lodged in the main trading system for these securities, Austraclear. In response to this change, about 30 per cent of the Bank's repurchase transactions were based on securities issued by State and Territory governments in 1997/98, about the proportion that might be expected given the respective amounts of CGS and State government securities on issue.

The Prime Assets Requirement (PAR) for banks was also reduced in June 1997, from 6 per cent of banks' liabilities to 3 per cent and, consistent with their eligibility for repurchase agreements with the Reserve Bank, State government securities also became eligible PAR assets. As the bulk of assets held by banks to

meet the PAR ratio had been CGS, the reduction in this ratio, and inclusion of State government securities in its calculation, allowed banks to reduce their holdings of CGS. This freed up the amount of these securities available for trading in the market. As noted in "Surveillance of the Financial System", in April 1998 the Reserve Bank announced that PAR would be abolished once banks were able to satisfy it (and APRA after 1 July) of the adequacy of their liquidity management policies.

Notwithstanding these changes, there were times during the year when the Reserve Bank's operations in domestic securities needed to be supplemented by transactions in foreign exchange swaps, in order to maintain desired cash market conditions. As explained in previous Annual Reports, foreign exchange swaps can be used in domestic liquidity management in much the same way as repurchase agreements. The difference is that, rather than exchanging cash for government securities, a foreign exchange swap involves the exchange of cash for foreign exchange. Use of swaps was mostly towards the end of the financial year, as the market increased its demand for liquidity in preparation for the introduction of RTGS, and following the sizeable foreign exchange intervention in June, which led to a substantial withdrawal of liquidity from the market as banks paid to the Reserve Bank the Australian dollars that it had purchased.

The value of foreign exchange swap transactions in 1997/98 was much the same as in earlier years, and remained small relative to the Bank's transactions in government securities, with turnover of $33 billion compared with turnover in government securities of $309 billion (see table). Swaps outstanding fluctuated during the year. From $2.7 billion at the start of the financial year, they rose to $6.3 billion in January before falling to a low of $2.1 billion in April and then rising again to $7.9 billion by June.

Market operations for liquidity management purposes*
($ billion)

	1995/96	1996/97	1997/98
Repurchase agreements**			
– Purchases	74	201	275
– Sales	14	9	8
Short-term CGS			
– Purchases	25	23	26
– Sales	2	1	–
Total domestic operations	115	234	309
Foreign exchange swaps**			
– Purchases	43	29	31
– Sales	1	6	2

* Market value of transactions

** First leg of transaction

The net amount of securities held by the Reserve Bank under repurchase agreements rose by $3 billion in 1997/98 to $9 billion at end June, though some of this increase was unwound in July. While the repo book was large by historical standards, the daily rolling-over of maturing repos was a smooth process, partly because of the depth of the repo market. Another factor was that the average term of the repo book was lengthened from two days at the end of the previous financial year to about 14 days by mid 1998. This kept the amount of repos maturing each day to a manageable level, thereby containing pressures in the cash market.

Looking ahead, it seems likely that reliance on repurchase agreements backed by domestic securities will inevitably diminish, as the supply of such securities falls, notwithstanding the Government's commitment to sustaining a degree of liquidity in the Commonwealth bond market. It is possible that there will be greater routine reliance on foreign exchange swaps in the Reserve Bank's liquidity management operations, as occurs in a number of European countries.

Debt repurchases for the Commonwealth Government

As well as operations associated with implementation of monetary policy, the Reserve Bank operates in domestic markets as agent for the Commonwealth Government for debt management purposes and to enhance the liquidity of the bond market. This includes the conduct of tenders on behalf of the Commonwealth for the primary issue of securities and the associated settlement and registry systems. In addition, in 1997/98 the Bank purchased from the market a large volume of stock on behalf of the Commonwealth. This purchase was necessary in order to facilitate the process whereby a budget surplus is used to reduce the level of public debt outstanding.

Total purchases by the Commonwealth amounted to $8.0 billion (face value). Apart from $0.9 billion bought directly from the Reserve Bank's portfolio, bonds were purchased from the market by the Bank and on-sold to the Commonwealth. These purchases included $4.4 billion of stock due to mature in 1998/99 and $2.7 billion of longer-term stock.

The Bank also facilitated the early retirement of $7.1 billion of Commonwealth debt due to mature within the financial year. This involved purchasing such stock in the market in the months leading up to maturity dates, and on-selling to the Commonwealth. The advantage of this for the Commonwealth was that it helped to smooth the pressures on its cash balances which would otherwise have occurred if all the stock had been redeemed on maturity date. Each line of stock maturing tends to be large (around $4–5 billion), reflecting the concentration of issues into a few benchmark lines so as to promote market liquidity.

The Domestic Markets dealing room bought $7 billion of Commonwealth bonds from the market in 1997/98, as part of the Government's debt reduction program.

Stock lending

The Reserve Bank is prepared to lend stock from its large domestic bond portfolio to enhance market liquidity. In doing so, the Bank earns an incremental return for accepting limited risk. Stock lending has no implications for the amount of liquid funds in the banking system since, in effect, such stock is exchanged for other stock, not for cash. The scale of stock lending in recent years is shown in the table below.

Stock lending by the RBA

	Number of transactions	Amount lent (face value, $ billion)	Income ($ million)
1994/95	350	12.1	0.6
1995/96	485	16.9	0.7
1996/97	540	11.9	0.7
1997/98	935	16.7	1.1

Over the financial year, around $17 billion of stock was lent to the market, compared with $12 billion the previous year. Around three-quarters of this were lines of stocks included in the 10-year futures basket for the contract traded on the Sydney Futures Exchange. In coming years, as the amount of CGS on issue declines, stock shortages are likely to occur more often. Accordingly, the stock-lending facility might become more important for lubricating the market.

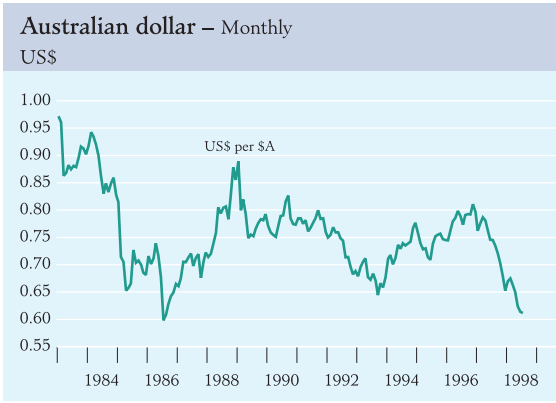
In its stock lending, the Reserve Bank responds to market approaches. To ensure that borrowers of stock exhaust market opportunities before approaching the Bank, policies in relation to this facility were revised in 1997/98 so that its pricing better reflected market conditions, and included a penalty element to discourage early use of the facility. The Bank also aims to ensure that borrowed stock is reasonably dispersed through the market.

Foreign Exchange Intervention

Australia operates a floating exchange rate regime, which means that the exchange rate is determined by the balance of demand and supply in the market for the Australian dollar. The broad factors which influence demand and supply, such as economic and financial conditions in Australia and abroad and the setting of monetary policy relative to that abroad, are well known. But, as is the case in foreign exchange markets in all countries, the way in which the various forces interact at any given point in time is far from being completely understood, so the markets (or the authorities) are rarely ever confident about what is the appropriate level of the exchange rate. On some occasions – fortunately not common – the absence of strongly held beliefs about fair value for the exchange rate means that market participants base their trading on the extrapolation of recent trends or on their assessment of other participants' views, both of which can lead to overshooting.

Foreign exchange intervention can play a useful role at such times in restoring a sense of two-way risk and thereby lessening the momentum which might otherwise result in overshooting. Intervention over the post-float period has generally been of this nature. The Reserve Bank does not intervene to prevent adjustment of the exchange rate; intervention typically takes place only after the exchange rate has already appreciated or depreciated significantly. In that sense, the aim has been a modest one: to limit the size of the movement once a substantial adjustment has already occurred, i.e. to trim the peaks and troughs. The Reserve Bank believes that in the long run it is the effective operation of monetary policy which determines the level of the exchange rate, and that it would be futile in the absence of sound monetary policy to use intervention to pursue a particular level for the exchange rate.

The Reserve Bank remains strongly of the view that the floating exchange rate regime has served Australia very well over the 15 years since its introduction and, given the large fluctuations in our terms of trade, remains much more suited to the Australian economy than any other exchange rate arrangement. Over this



period, the exchange rate against the US dollar generally traded in the range of US60 cents to US80 cents (see graph). Two complete cycles were experienced between the mid 1980s and mid 1990s, and over the past year a third cycle has been in process, as the exchange rate moved down towards US60 cents.

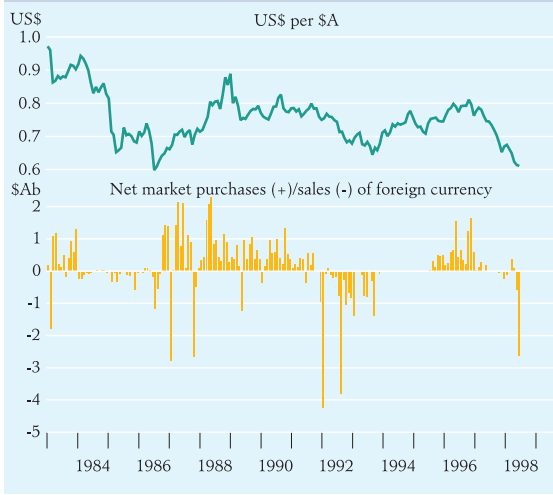
As outlined in the May 1998 *Semi-Annual Statement on Monetary Policy*, the Reserve Bank has accepted that a significant depreciation of the Australian dollar in 1997/98 was appropriate as a response to developments in Asia, and through most of this period it did not seek to exert any influence; until June 1998, intervention in the market was relatively minor and brief. In June, however, larger-scale intervention was undertaken. Speculative selling by large international funds managers was clearly evident and natural buyers of the Australian dollar, such as exporters, whose transactions normally are linked closely to trade flows, began to trade speculatively, turning earlier purchases made at higher rates back into the market. Judging a potential for further instability, and recognising that there had already been a large adjustment in the exchange rate, the Bank felt that there was a case for it to be on the other side of the market. It bought a considerable amount of Australian dollars ($2.6 billion) at levels between US62 cents and US60 cents, though taking care to avoid drawing "lines in the sand".

It is important to recognise that when it intervenes in the foreign exchange market the Reserve Bank simply exchanges one currency asset for another; for example, in June 1998 the Bank sold US dollar assets and purchased Australian dollar assets. Intervention does not change the size of the Bank's balance sheet and does not involve "spending" money, even though it is often described in this way in the popular media. Because intervention by the Reserve Bank throughout the post-float period has followed the pattern of buying foreign currency when it is cheap (i.e. when the Australian dollar is high) and selling it when it is expensive (when the Australian dollar is low), it has yielded significant profits.

The recent intervention continued this pattern, in that the sales of foreign exchange reversed some of the substantial purchases made over late 1996/early 1997 when the exchange rate of the Australian dollar was high. As such, in contrast to some popular claims that, by intervening, the Reserve Bank was handing easy profits to speculators, it was in fact realising substantial profits on earlier purchases of foreign currency. Some of these were reflected in 1997/98

earnings available for distribution and some will be reflected in the coming year when the foreign currency that was sold is delivered. The relationship between intervention and the Bank's profits is explained in more detail in a Research Discussion Paper, entitled *Reserve Bank Operations in the Foreign Exchange Market: Effectiveness and Profitability*, issued in 1994.

Australian dollar and RBA foreign exchange operations – Monthly



In addition to its market sales of foreign exchange, the Reserve Bank undertakes purchases and sales of foreign exchange with the Commonwealth Government to meet its requirements for foreign exchange. These transactions are carried out at market prices. In 1997/98, the Bank bought $1.4 billion in foreign exchange from the Government and sold $4.4 billion to it; net sales were $3.0 billion. These amounts were in line with the Commonwealth's average net purchases and sales in recent years.

RBA foreign exchange transactions

($ billion)

	Transactions							
	With market	With Government	Other (including swaps)	Net transactions	Valuation changes	Net change in Official Reserve Assets	Level of Official Reserve Assets	RBA outstanding foreign exchange swaps
1990/91	4.7	-4.6	1.4	1.4	0.7	2.1	24.0	0.3
1991/92	-4.3	-2.8	3.2	-3.9	2.1	-1.8	22.2	-2.0
1992/93	-10.3	-2.2	8.6	-4.0	2.5	-1.4	20.8	-8.4
1993/94	-2.2	0.5	2.7	1.1	-1.2	-0.1	20.7	-10.8
1994/95	–	-0.7	-1.3	-2.0	1.5	-0.5	20.2	-8.8
1995/96	5.6	-4.9	0.1	0.8	-1.9	-1.1	19.1	-5.4
1996/97	5.2	-1.0	-0.8	3.4	0.3	3.7	22.8	-2.7
1997/98	-3.2	-3.0	6.1	–	2.7	2.6	25.4	-7.9

The net effect of all foreign exchange transactions under-taken by the Reserve Bank in 1997/98 – including market intervention, net sales to the Commonwealth

Government, interest earnings and swaps – was to leave gross holdings of Official Reserve Assets broadly unchanged. Valuation effects added $2.7 billion to reserves during the year. As a result, the overall value of foreign reserves rose by $2.6 billion over the year to $25.4 billion. Net reserves, after deducting swaps outstanding, fell by $2.6 billion to $17.6 billion.

Management of Foreign Reserves

The foreign currency reserves held by the Reserve Bank to provide the wherewithal for intervention in the foreign exchange market need to be carefully managed to ensure that their liquidity, risk and return characteristics are maintained in line with the Bank's objectives. Investments need to be highly liquid, so that they can be made available quickly for intervention purposes when necessary, and need to carry minimal credit risk. Essentially, this means that the bulk of the assets are securities issued by the national governments of the United States, Germany and Japan and deposits with highly rated banks.

In contrast to its role in domestic markets, the Reserve Bank has no special status in markets abroad, and it is therefore able to act like other investors in managing its foreign reserves portfolio, though it is always careful to ensure that its management decisions are consistent with stability in the markets where it is investing.

In view of its objectives, and taking account of past patterns of risk and return in the different markets, the Reserve Bank has judged that its optimal portfolio of foreign assets over the long run is 40 per cent US dollars, 30 per cent yen and 30 per cent Deutsche Marks. Similarly, the optimal duration of assets in each of these portfolios over the long run is determined to be 30 months. These portfolio characteristics are incorporated in a benchmark against which investment decisions are measured.

Composition of benchmark portfolio

	United States	Japan	Germany
Asset allocation (%)	40	30	30
Currency allocation (%)	40	30	30
Duration (months)	30	30	30

The investment climate in 1997/98 was difficult, particularly because of the behaviour of Japanese financial markets. Bond yields in Japan began the year at levels which were already very low by any historical standard. The yield on the benchmark 10-year bond, for instance, was 2.3 per cent at the start of the financial year, at that stage the lowest yield ever reached in Japan and not much above the lows recorded by US bonds in the 1930s depression.

These low running yields, and the risk of large capital losses if bond yields were to rise to more normal levels, had already induced the Reserve Bank to reduce its holdings of long-term bonds, with the result that the duration of its Japanese portfolio was significantly below that of the benchmark. In the event, yields continued to move down, at one stage reaching 1.125 per cent, equalling the lowest recorded by historians (in Genoa in 1619). This meant that the return on Japanese assets underperformed the benchmark, as the short duration limited capital gains when yields fell. Despite this, the Bank remained of the view that the risk/return associated with long-term Japanese bonds did not justify benchmark holdings; duration was kept short of the benchmark and the amount of the portfolio invested in Japanese assets was reduced, with the funds placed in US and German securities, which had higher yields and yet were viewed as having no greater risk of capital losses.

Over the year as a whole, the short duration position meant that the return on the Japanese portfolio, 1.26 per cent, was well below the benchmark return of 3.31 per cent; in dollar terms, this underperformance was equivalent to about $120 million.

Returns in the US and German portfolios exceeded benchmark, by small margins in both cases. In the US portfolio, the return was 7.86 per cent, compared with a benchmark return of 7.70 per cent, while in the German portfolio the return was 5.72 per cent, against a benchmark return of 5.70 per cent. In the US portfolio, this outperformance was equivalent to about $10 million, and in Germany to about $2 million.

Asset and currency allocation decisions contributed about $90 million to portfolio performance relative to benchmark, due mainly to the decision to reduce the allocation to Japan below benchmark, and correspondingly to increase the allocation to the United States and Germany.

Overall, the total return on the foreign exchange component of Official Reserve Assets, measured in a common currency (SDRs), was 4.47 per cent. This was 10 basis points below the return on the benchmark portfolio (see table). The additional returns from asset and currency allocation decisions were not sufficient to offset the below-benchmark returns on Japanese investments.

Actual and benchmark returns in 1997/98

(Per cent)

	Actual	Benchmark
US (in US$)	7.86	7.70
Germany (in DM)	5.72	5.70
Japan (in ¥)	1.26	3.31
Total foreign currency (in SDRs)	4.47	4.57

The Reserve Bank's approach to active reserves management is designed to enhance returns over a long period, and does not guarantee that actual returns will exceed benchmark returns in every year. Since the Bank began measuring performance against a benchmark in 1991/92, returns have exceeded benchmark in five years and have been less than benchmark in the remaining two years; returns have also exceeded benchmark over the seven years taken together (see table).

Actual and benchmark returns: aggregate foreign currency portfolio

	Rates of return in SDRs (per cent)		Value of difference between actual and benchmark returns ($ million)
	Actual	Benchmark	
1991/92	9.8	8.9	165
1992/93	16.3	11.6	420
1993/94	4.0	3.8	31
1994/95	5.2	7.4	-331
1995/96	4.0	3.7	40
1996/97	4.5	4.2	34
1997/98	4.5	4.6	-19

In the case of gold, the Reserve Bank continued its practice of lending part of its holdings to market participants. Over the past year, the bulk of the Bank's holdings of 80 tonnes was on loan. Interest earned through this activity amounted to $21 million in 1997/98, a return of a little under 2 per cent. Nonetheless, the overall return on gold, taking into account changes in its price as well as interest on gold loans, was minus 5.4 per cent, measured in SDRs. This was well below the return on foreign currency assets. As a result, the decision taken last year to reduce gold holdings, and reinvest the proceeds in foreign currency assets, meant that earnings on the Bank's overall portfolio of gold and foreign exchange in 1997/98 were about $280 million higher than if gold holdings had remained at their earlier level. The cumulative gains, taking into account the additional returns made in the previous year, are about $390 million.

In the coming year, the Reserve Bank – like all other international investors – will have to review its European investment policies in the light of progress towards European Monetary Union (EMU). At present the Bank invests only in bonds issued by the German federal government, but with 11 countries now having committed to joining EMU, there will be scope to expand investments to include other highly rated and liquid bonds.

The Impact of Market Operations on the Balance Sheet

The Reserve Bank's balance sheet contracted by $3.6 billion (7 per cent) in 1997/98, reversing the run-up that occurred in the previous year when a number of special factors gave the balance sheet a temporary boost. As noted in last year's Annual Report, in 1996/97 there was a sharp rise in Government deposits and deposits held by banks in ES accounts. The former were bolstered by a special dividend payment by Telstra, ahead of its partial privatisation, while banks' holdings of ES funds temporarily reached high levels in June 1997, for reasons explained earlier in this Report.

On the assets side of the balance sheet, these swings were reflected mainly in holdings of domestic securities. After a rise of $9.3 billion in 1996/97, holdings of these securities fell by $4.4 billion in the latest year. This reflected market operations to neutralise the liquidity impact of swings in Government deposits and ES funds. Within the total, Treasury note holdings were reduced by $0.5 billion through sales and maturities; holdings of Treasury bonds were reduced by $6.9 billion, again through maturities and outright sales. Holdings of securities under repurchase agreements, in contrast, rose by $3.0 billion.

Holdings of gold and foreign exchange rose by $2.1 billion. As noted above, sales for currency intervention purposes were more than offset by swaps undertaken for liquidity management, interest received and valuation effects.

Change in RBA balance sheet 1997/98

($ billion)

Notes on issue	1.6	Domestic securities		
Government deposits	-4.4	– Treasury notes	-0.5	
Deposits of other clients	0.1	– Treasury bonds	-6.9	
ES accounts	-4.2	– Repos	3.0	-4.4
Non-Callable Deposits	0.3	Gold and foreign exchange		2.1
Other liabilities		Other assets		-1.3
(mainly capital and reserves)	3.0			
Total	-3.6	Total		-3.6