

## THE VARIABILITY OF RESERVE BANK PROFITS

Over the past 30 years, the RBA has returned profits averaging about 4<sup>1</sup>/<sub>2</sub> per cent of assets, although these have been lower in recent years. This is a relatively high rate of return for a financial institution; commercial banks, for example, typically return about 1 per cent on assets. Central banking tends to be profitable because a proportion of assets can be funded by issuing currency notes, rather than interest-paying liabilities such as deposits. About half the RBA's assets are funded by the issue of currency (the rest is funded from deposits from banks and governments and from capital).

A less favourable characteristic of central banking is that it carries a high degree of risk. This is because central banks are required to hold large amounts of securities denominated in domestic and foreign currency in order to carry out their responsibilities, which exposes them to market risk. This is the risk that interest rates and/or exchange rates will move in a way which will adversely affect the value of assets, and therefore profits. As with other countries' central banks, the RBA's exposures to interest rates and exchange rates far exceed those of commercial banks.

It is not surprising, therefore, that the RBA's profits exhibit a high degree of variability. Further, the potential for variability has increased over time because of changes to accounting practices. In years past, central banks coped with the unique risks they faced by operating under special accounting practices. Often these did not immediately recognise in profits all changes in the value of assets; in essence, these practices involved the smoothing of profits over a number of years. But as central banks have come under increasing pressure to be more transparent and accountable, there has been a tendency to adopt conventional accounting rules

which, among other things, involve the constant marking to market of asset portfolios, with valuation fluctuations reflecting immediately in profits.

This chapter discusses the implications of this for the variability of the RBA's profits. In doing so, it distinguishes two aspects of profits:

- underlying earnings, which reflect the net interest income earned on assets (less operating costs); and
- valuation gains and losses on holdings of assets.

### Underlying Earnings

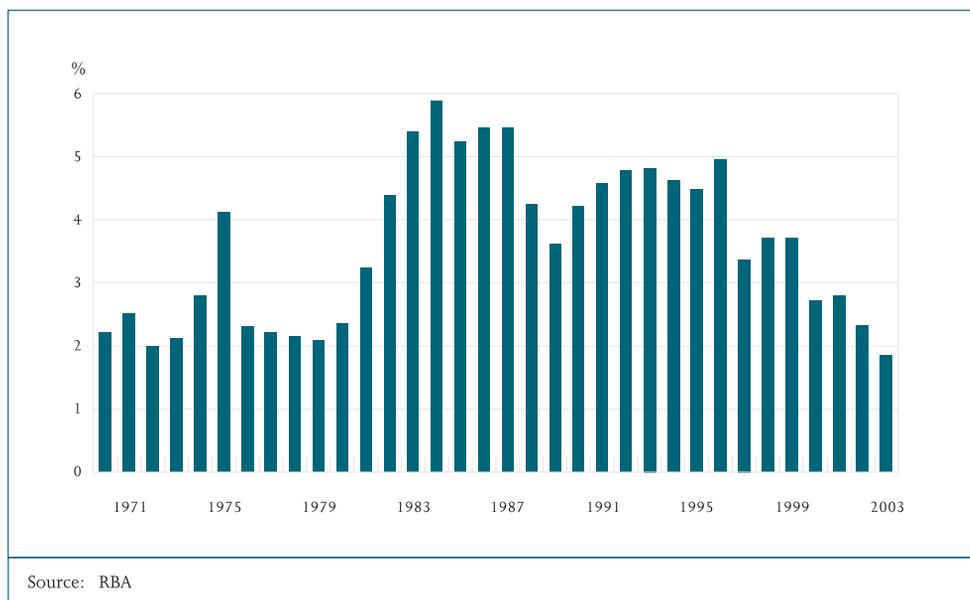
Underlying earnings accrue from the fact that interest earnings on assets exceed interest payments on liabilities. This occurs because, as noted, a substantial proportion of liabilities is in the form of currency notes, on which no interest is payable. Liabilities in the form of capital also do not involve any interest payments.

In contrast, virtually all the financial assets held earn interest. These are mainly domestic and foreign securities and deposits with foreign banks. Interest payments by the RBA in the past year averaged only 1.3 per cent when measured across all liabilities, while interest earnings were 3.5 per cent of assets.

Operating costs tend to be fairly small relative to the flows of interest payments and receipts, so it is not surprising that underlying earnings for the year were only a little lower than the net interest margin – about 2 per cent of assets.

Underlying earnings are a relatively stable component of profits from year to year, but they do move over time with the long cycle in interest rates. They rose with interest rates in the 1980s to an average of almost 5 per cent of assets before declining to about 2 per cent recently as interest rates, both in Australia and overseas, fell.

GRAPH 23 | UNDERLYING EARNINGS Per cent of assets



In absolute terms, the size of underlying earnings also reflects, of course, the size of the RBA's balance sheet; higher holdings of assets will normally yield higher underlying earnings. The balance sheet has expanded considerably over recent years, for a variety of reasons, but the growth has not been sufficient to offset the effect of the decline in interest margins. As such, underlying earnings have contracted from about \$1.75 billion in the mid 1990s to around \$1.25 billion last year.

### Valuation Gains and Losses

As noted, the RBA's policy responsibilities require it to hold a high proportion of its assets whose value is affected by changes in interest rates and exchange rates. Ninety-eight per cent of the RBA's assets are subject to interest rate risk and, of these, about half on average has tended also to be subject to exchange rate risk.

Rises in the general level of interest rates cause the market value of existing securities to fall. A summary measure of the interest rate sensitivity of a portfolio of securities is given by the portfolio's duration. This is a measure of the weighted average maturity of all the cash flows (coupon payments and maturities) associated with the portfolio. The longer the duration of a portfolio, the more sensitive it is to changes in interest rates.

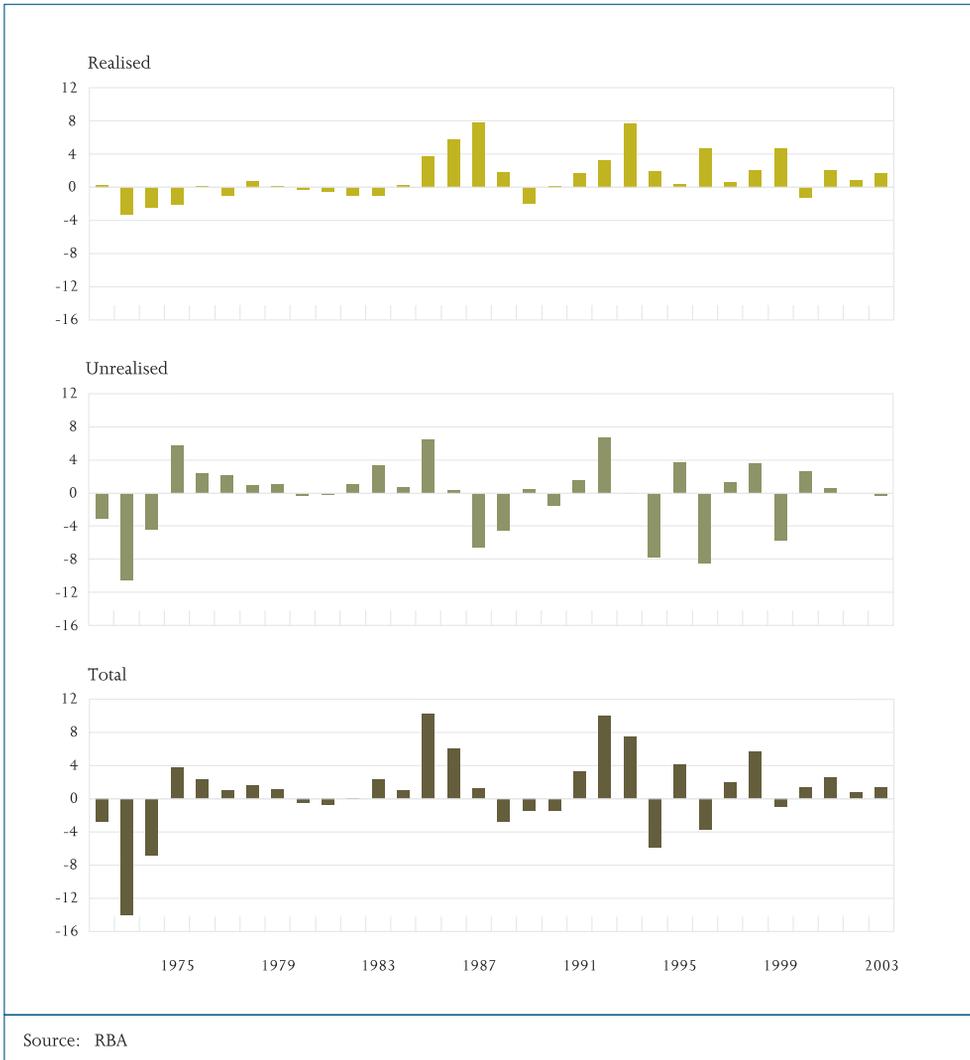
The duration of the RBA's holdings of securities is about 2 years. This means that each rise of 1 percentage point in the general level of interest rates will reduce the market value of the securities by 2 per cent. On a portfolio of about \$65 billion, this translates to an absolute loss of about \$1.3 billion. Given that interest rates on securities can move by several percentage points in a year, the potential losses faced from this source are very large.

For that proportion of assets held in foreign currencies, there is an additional risk associated with changes in exchange rates of those currencies against the Australian dollar. Foreign currency assets are held as part of Australia's official reserves, and provide scope to intervene in the foreign exchange market.

On average, about half the RBA's assets have tended to be in foreign currencies. At present the proportion is higher than this, at around 60 per cent, but a large part of these foreign currency investments is held under swap agreements and is therefore not subject to foreign exchange risk as the exchange rate at which they are to be sold has been agreed. As such, the proportion of assets exposed to foreign exchange risk is about 20 per cent.

The proportion of assets exposed to foreign exchange risk tends to vary over the exchange rate

GRAPH 24 | VALUATION GAINS AND LOSSES Per cent of assets



cycle as the RBA undertakes intervention in relation to the Australian dollar. When the exchange rate of the Australian dollar is at low levels, for example, the RBA is likely to be a buyer of Australian dollars and a seller of foreign currencies; this means that the proportion of its assets held in foreign currencies tends to fall. Conversely, when the Australian dollar is at high levels, the RBA tends to be a seller of Australian dollars and a buyer of foreign currencies, so the proportion of assets held in foreign currencies tends to be above average. Although this intervention is undertaken for the purpose of influencing the exchange rate, it has the side benefit of helping to

limit the RBA's exchange risk and, on average, results in profits from foreign exchange intervention. This is because intervention operations, if carried out successfully, mean that the proportion of assets held in foreign currency tends to be at its lowest when the exchange rate is at a low level, which is also when the probability of a rise in the exchange rate is at its highest. Conversely, reserves tend to be at their highest level when the exchange rate is at its highest, and therefore when a fall will most likely occur.

Even with the present relatively low proportion of foreign currency assets, the foreign exchange risks faced by the RBA are still substantial in absolute

terms. For example, with net foreign currency assets currently at around \$12 billion, a 10 per cent rise in the Australian dollar would result in a valuation loss of around \$1.2 billion.

Periods of rising interest rates and a rising exchange rate can coincide (in fact, in the past, they have often done so) so the losses from interest rate movements and currency movements may occur simultaneously, adding to the potential losses faced by the RBA. The potential valuation losses are substantially larger than the RBA’s underlying earnings, thereby giving rise to the possibility that the RBA could record an accounting loss in any year.

The largest valuation loss over the past 30 years was in 1973, at 14 per cent of assets; the largest valuation gain was in the mid 1980s, at 10 per cent of assets. Both of these were due mainly to foreign currency movements. Gains and losses have averaged about 3½ per cent of assets (in absolute terms) over the past 30 years, which has been broadly similar to the average size of the RBA’s underlying earnings over that period. On balance, they have added to profits as the number of years in which gains have been recorded have outnumbered years of losses by

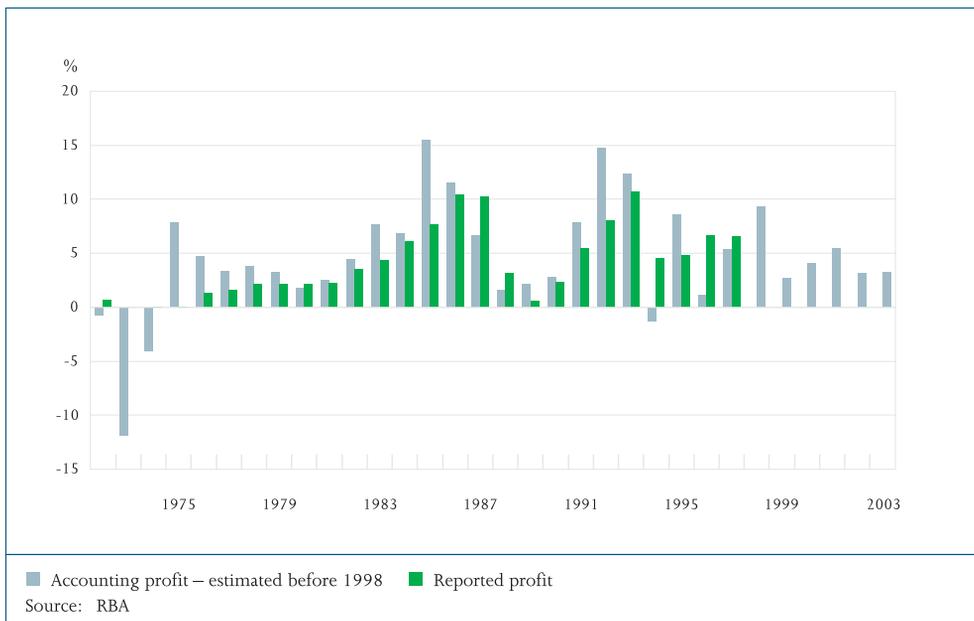
two to one. This reflected the fact that for a good part of this period there was a downward trend in the exchange rate, which produced gains on foreign currency assets. There is no reason to believe that this will continue in the future, so the incidence of gains and losses should become more evenly balanced.

### The Impact of Accounting Standards

Since 1998, the RBA has reported its accounting profits consistent with Australian Accounting Standards and the Commonwealth Authorities and Companies Act. This means that all valuation gains and losses on financial assets are now fully reflected in accounting profits. This was not always the case. In earlier years, the RBA complied with reporting standards determined by regulations under the Reserve Bank Act. Under these arrangements, some valuation gains or losses on traded assets were not immediately reflected in profits but were absorbed into various reserves or provisions. This had the effect of smoothing profits from year to year.

The experience of the early 1970s provides a good illustration. As noted, the RBA’s largest loss on foreign currency positions was in 1973, when total

GRAPH 25 | ACCOUNTING PROFITS Per cent of assets



losses amounted to about 12 per cent of assets. At that time, Australia had a pegged exchange rate and there were widespread expectations that the currency would be revalued upwards. This led to a rise in the RBA's holdings of foreign exchange as, in order to clear the foreign exchange market each day as it was required to do, the RBA had to buy foreign currency and sell Australian dollars to absorb the opposite pressures from the market. In addition, the RBA was also required to provide forward foreign exchange cover to companies engaged in international trade and its forward commitments (to buy foreign exchange at the then current exchange rate) trebled over a short period.

When the exchange rate was revalued upwards, the RBA incurred large losses both on its outright holdings of foreign currencies and its forward position. Yet the profit and loss account for that year did not show a large loss, as might have been expected under current accounting rules, but a very small profit. The foreign exchange losses were, to a small degree, absorbed by transfers from financial reserves and from net interest earnings, but the bulk was treated as an "unfunded adjustment account" on the balance sheet. This accounting treatment was consistent with the reporting requirements applying to the RBA at that time, as certified by the Auditor General.

Reported profits before 1998 can be adjusted to provide a series that is broadly consistent with the current measure of total accounting profits. If current accounting practices had been followed over the past thirty years, the RBA would have shown losses in four years, whereas the results actually recorded have never shown a loss. On the whole, the current approach would also have resulted in greater variability in profits, as shown in the table. A net loss of 11.8 per cent of assets would have been made in 1973, while the largest profit would have been 15.5 per cent of assets. The largest profit recorded under the previous regulations was 10.7 per cent of assets. These adjusted numbers give a better indication than reported profits of the likely variability in profits the RBA could face going forward.

Although the earlier approach resulted in a less volatile pattern of profits it did not systematically

overstate profits in the longer-term since periods of large valuation losses, which were at least partly provisioned, were often followed by periods of valuation profits which were treated in a similar way.

**RBA Profit and Loss: 1972-2003**  
(per cent of assets)

	Largest loss	Largest profit	Overall variability*
Reported profit	-	10.7	2.6
Estimated accounting profit	-11.8	15.5	3.7

\* Average absolute deviation from mean

### Earnings Available for Distribution

The RBA pays dividends out of profits to its shareholder, the Australian Government. Only profits that are realised are eligible to be paid to the Government. Included in this measure are underlying earnings and any gains or losses that are realised on the sale of assets. This is consistent with best practice among central banks and with the Reserve Bank Act. To do otherwise could potentially require the RBA to sell assets in order to fund a dividend payment to the Government.

This treatment means that there is a difference between accounting profits and earnings available for distribution. Further, because the latter is an important component feeding into the Government's budget, it tends to receive more attention than the RBA's accounting profits.

Earnings available for distribution on average are likely to be more stable than accounting profits as only those gains or losses that are realised are included. Unrealised gains or losses are, under this concept, reflected the Unrealised Profits Reserve. Only if unrealised losses are so large that they exceed the balance in the Unrealised Profits Reserve is an amount charged against earnings available for distribution, in order to restore the balance in this reserve to zero.

Even though realised gains and losses will on average be smaller than total valuation gains or losses, they are still potentially large relative to underlying earnings. As such, earnings available for distribution can be volatile from year to year.