
Foreign Exchange Settlement Practices in Australia

Introduction

The settlement of foreign exchange transactions involves particular risks because two currencies are delivered in different countries, often in different time zones and often through the use of agent, or correspondent, banks. Dealers' settlement exposures last from the time they issue irrevocable instructions to pay the currency they have sold until they confirm receipt of the currency they have bought. This risk is particularly important to Australian dealers as the Australian foreign exchange market ranks ninth in terms of global turnover.

Although the risk in foreign exchange settlement has long been recognised – the failure of Bankhaus Herstatt in 1974 certainly confirmed its existence – it has only been in the past few years, co-inciding with the rapid growth in market transactions, that detailed studies of it have been undertaken and that a concerted effort has been made by central banks to ensure that the risks are addressed by commercial banks. The most well-known study was of G10 markets by the Committee on Payment and Settlement Systems (CPSS) of the central banks of the G10 countries (often referred to as the Allsopp Report), which was published by the Bank for International Settlements in 1996.

Neither the Australian dollar nor the

Australian market were included in the CPSS report, despite their importance in the world's foreign exchange markets. Given this, the RBA decided to undertake its own study; apart from the prudential issues the RBA felt that it is also critical to the competitive position of the Australian foreign exchange market that Australian settlement and risk management practices were not out of line with world best practice.

The RBA's Study

The RBA's study, which is available from the Bank's Information Office and is on its web site, involved a survey of 24 of Australia's foreign exchange dealers during the month of April 1997. Those dealers selected to participate included non-banks as well as banks; the selection criteria were designed to include dealers with unique characteristics, such as ownership and location, as well as size. The 24 dealers accounted for over 90 per cent of local market turnover.

The study showed that foreign exchange dealers in Australia face large risks as a result of the settlement process. Exposures lasting in excess of 24 hours are the norm. Table 1 shows the weighted average duration of exposures for the five most traded currency pairs in the Australian market. Together these currency pairs account for around 95 per cent

of local market turnover. The US dollar forms one leg of each of the five currency pairs, so settlement practices for that currency are an important determinant in addressing foreign exchange settlement risk in Australia. Where the US dollar is purchased, the weighted average period of exposure of each of the currency pairs is well in excess of 24 hours and, while the exposures last no more than 24 hours where the US dollar is sold, they are still significant.

Table 1: Industry-weighted Average Exposure Hours

Currency pair	USD bought	USD sold
AUD/USD	33	12
USD/DEM	31	22
USD/JPY	37	17
NZD/USD	37	18
GBP/USD	29	24

The dealers surveyed had an average aggregate daily peak exposure of AUD122 billion each day during April 1997. The exposure built up, starting the previous day, as the payment instructions for the sold currencies became irrevocable; exposures declined as it was confirmed that the currencies purchased had been received.

If not all purchases of currencies have been confirmed when payment instructions for the next day's settlements start to become irrevocable, the exposures will start to accumulate. On an industry basis that is what happens in Australia. Graph 1 illustrates how the exposure that starts to build up rapidly from just after 10 am on settlement day (day t), is still significant at 11 pm the next day (t+1). Meanwhile, the next day's settlements have started to build, such that while the peak exposure generated on a single day is AUD122 billion, it is AUD189 billion on an ongoing cumulative basis.

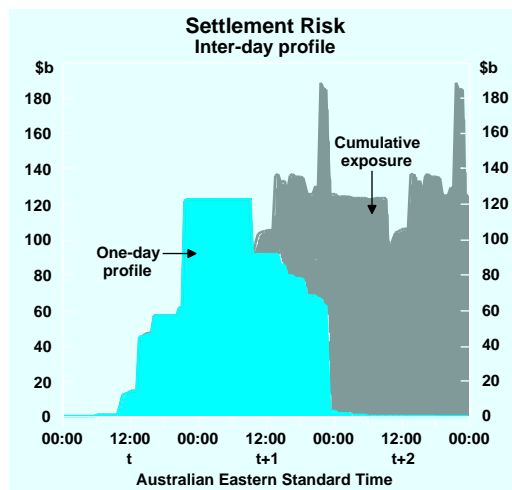
Reducing settlement risk in foreign exchange transactions

It is often erroneously assumed that foreign exchange settlement risk is purely a time zone problem, where one currency is delivered before the second is received. The RBA's study illustrated that time zone differences are only one component of the risk. For example, although there is only a two hour time difference between Australia and New Zealand the RBA found that, on average, dealers' foreign exchange settlement exposures arising from AUD/NZD transactions last for at least a day, irrespective of which currency is delivered first. This reflects the fact that the period of exposure when settling a foreign exchange transaction lasts from the time a payment instruction for the currency sold can no longer be cancelled until the time receipt of the currency purchased is confirmed.

Changes to domestic payments systems can help dealers reduce foreign exchange settlement risk. The introduction of a real time gross settlement (RTGS) system in Australia, to replace the current deferred net settlement system for high-value payments in 1998, will enable dealers to reduce the duration of their exposures arising from the purchase of Australian dollars. Settlement of Australian dollar transactions will then be immediately final as they are made and not the following morning as at present.

But it was also clear from the study that for many dealers much can be done to reduce foreign exchange settlement risk in Australia.

Graph 1



While some dealers are clearly aware of the issue and are actively implementing strategies to reduce their exposures, others have work to do to comprehend the spectrum of risks to which they are exposed when settling foreign exchange transactions. The study identified significant differences between the duration of settlement risk for the various dealers. In fact, if best practice were adopted by all dealers, one day's settlements would be extinguished before the next day's payments became irrevocable, significantly reducing total risk.

The period for which individual dealers are at risk from foreign exchange settlements can be reduced by:

- negotiating arrangements with correspondent banks to achieve the latest possible cancellation times for the payment instructions for the sold currency;
- negotiating arrangements with correspondent banks to ensure that statements are sent as soon as possible after value has been received; and
- improving their own systems so that they promptly reconcile payments with those statements.

In the case of Australian dealers, the RBA study revealed that quite significant reductions in the duration of foreign exchange settlement risk can be achieved simply by improving their reconciliation practices, by ensuring that their correspondent banks send statements in a timely fashion electronically and that the statements are reconciled promptly.

Such steps are aimed at reducing the time dealers are at risk. But the amount at risk can also be reduced by netting, provided it is legally enforceable. Netting can be on a bilateral basis where two foreign exchange dealers agree to net payments between themselves. Or it can be through a multilateral scheme whereby a clearing house – such as the Exchange Clearing House (ECHO) for example – becomes the counterparty to contracts between a number of users and settles its net position with each user.

United States high-value payments systems' operating hours were extended in December

1997 to overlap with European and Asian banking hours. This will help dealers co-ordinate settlement times and thus contribute to reducing settlement risks. These extended hours are also important to a recent proposal that could potentially eradicate foreign exchange settlement risk, at least for participating banks in certain currencies. Participating banks would hold accounts with a special purpose bank, to be called Continuous Linked Settlement (CLS) Bank. Final and irrevocable settlement of foreign exchange transactions would take place across those accounts. The CLS Bank would be a member of the RTGS system of each of the currencies being settled, enabling it to effect payments to and from each of the participating banks in real time.

Conclusion

The RBA's survey has shown that Australian foreign exchange dealers face settlement risks of an order, in relative terms, similar to those in other centres. The variance of the extent of risks faced by Australian dealers suggests that aggregate risks can be markedly reduced by the adoption of improved back office practices by those whose procedures currently lag significantly behind best practice. The RBA has emphasised the importance of this issue to dealers, and will be conducting another survey in 1998 to assess progress.

The RBA has encouraged dealers to assess carefully the opportunities to reduce settlement risk through netting schemes and is supporting the introduction of legislation to give legal certainty to netting in financial markets, a prerequisite to the participation of Australian banks in multilateral netting schemes for foreign exchange. The RBA is also encouraging the proponents of the CLS Bank to include the Australian dollar in its arrangements, and the Australian banks to take advantage of the opportunities that this might provide to reduce foreign exchange settlement risk. ✎