Safety and Stability

Robust arrangements for clearing and settlement of payments and other financial obligations are crucial to overall financial system stability. Recognising this, policymakers have developed high-level standards – in the form of the *Core Principles for Systemically Important Payment Systems* and the *Recommendations for Securities Settlement Systems* – that are now internationally accepted as representing minimum requirements for good practice in this area. Observance of these standards forms part of assessments by the International Monetary Fund and the World Bank of the soundness of a country's financial system. Australia has not yet been subject to such an assessment. Nonetheless, the Board has judged that Australia rates highly against these international standards, a judgment it will revisit on an ongoing basis as the standards take on greater operational content. Over the past twelve months, two main issues relating to safety and stability have been on the Board's agenda. One is the introduction of CLS Bank, a global initiative to reduce foreign exchange settlement risk, which commenced operations in September 2002. The other is the development of financial stability standards for securities clearing and settlement systems, for which the Board now has regulatory responsibilities.

Foreign exchange settlement risk

The reduction of risks associated with the settlement of foreign exchange transactions has been a continuing priority for the Board, and it has been a strong supporter of private-sector efforts to strengthen settlement mechanisms. These efforts have focused on the development of a "continuous linked settlement" mechanism, known as CLS Bank.

A foreign exchange transaction involves the payment of one currency for another. Before CLS Bank commenced operations, the settlement of each leg could occur only in the domestic payment system of each country, often in different time zones and using correspondent banks to settle on behalf of banks not represented locally. The settlement processes were not co-ordinated and there was the risk that one party could pay out the currency it had sold, but not receive the currency it had bought, because its counterparty or its correspondent bank had failed to deliver. Even if this failure were due only to short-term operational problems, the party expecting funds would have remained without those funds and there could be "knock-on" effects if the funds were needed to complete another transaction, either in the foreign exchange or domestic markets. The amounts involved in foreign exchange settlements can be very large – the Australian dollar leg of foreign exchange transactions exceeds A$100 billion on some days – so the scope for disruption was substantial. Australian banks were also particularly disadvantaged by the time zone: over 90 per cent of Australian dollar trades are against the US dollar, which was settled some 14 to 16 hours behind Sydney.

CLS Bank is a special-purpose bank which links the settlement of both legs of foreign exchange transactions in eligible currencies. Banks using the service maintain accounts with CLS Bank in each currency and transactions are settled simultaneously across these accounts. Settlement takes place on a "payment-versus-payment" (PvP) basis – to minimise its exposure to member banks, CLS Bank settles transactions if, and only if, each member retains an overall positive balance across its currency accounts after each settlement. Settlement risk is eliminated because CLS Bank ensures that one party cannot pay out the currency it has sold, but not receive the currency it has bought, because its counterparty or the counterparty's correspondent bank has failed to deliver.

Development of CLS Bank began in 1997 as an initiative of a group of major international banks. Though its implementation proved to be a protracted process, the Board is pleased to note that CLS Bank commenced live operations on 9 September 2002, settling transactions in seven "first wave" currencies – the Australian dollar, Canadian dollar, euro, Japanese yen, pound sterling, Swiss franc and US dollar. CLS Bank expects to add the Danish krone, Norwegian krone, Singapore dollar and Swedish krona to the original currencies around the middle of 2003 and has endorsed in principle the inclusion of the Hong Kong dollar and New Zealand dollar in mid 2004.

Inclusion of the Australian dollar in the CLS arrangements required a number of regulatory actions

and changes to operating procedures in Australia's domestic payment system. As a formal step, the Reserve Bank was asked by the Federal Reserve Bank of New York (which is the primary supervisor of CLS Bank) to approve the inclusion of the Australian dollar as an eligible CLS currency. In common with the central banks of the other "first wave" CLS currencies, approval was based on the minimum standards and principles for central bank oversight set out in the *Report of the Committee on Interbank Netting Schemes* (the Lamfalussy Report), published by the Bank for International Settlements in 1990. These were the standards in place when the development of CLS Bank got under way.

Individual transactions are settled by CLS Bank on a gross basis but, to keep liquidity needs in each currency to a minimum, banks need to pay in only their net short position or receive from CLS Bank only their net long position. To ensure the finality and irrevocability of these net payments by Australian members, CLS Bank has been declared a "netting market" under the *Payment Systems and Netting Act 1998*. Payments to and from CLS Bank are made through the relevant domestic real-time gross settlement (RTGS) system. In Australia, CLS Bank required an Exchange Settlement Account at the Reserve Bank for this purpose, and an application for such an Account was approved by the Payments System Board before CLS Bank commenced operations.

The CLS settlement process operates during a five-hour window, from 7.00 am to mid-day Central European Time. Depending on the time of year, that window closes between 8.00 pm and 10.00 pm in Sydney. Recognising the difficulties that this narrow window presents, the CLS arrangements give priority to settlements in the Asia-Pacific region, the aim being to complete these settlements two hours earlier than in the other regions. For its part, the Reserve Bank has extended the operating hours for Australia's RTGS system to synchronise them with the core hours of CLS Bank and Australian banks participating in the CLS system have extended their operating hours as well. The tight daily timetable means that operational problems in CLS Bank or its members could be disruptive to the CLS system, and to domestic payments systems more broadly. To minimise this risk, CLS has invested heavily in its own risk management and business continuity plans and requires its members to meet strict operational and technical standards.

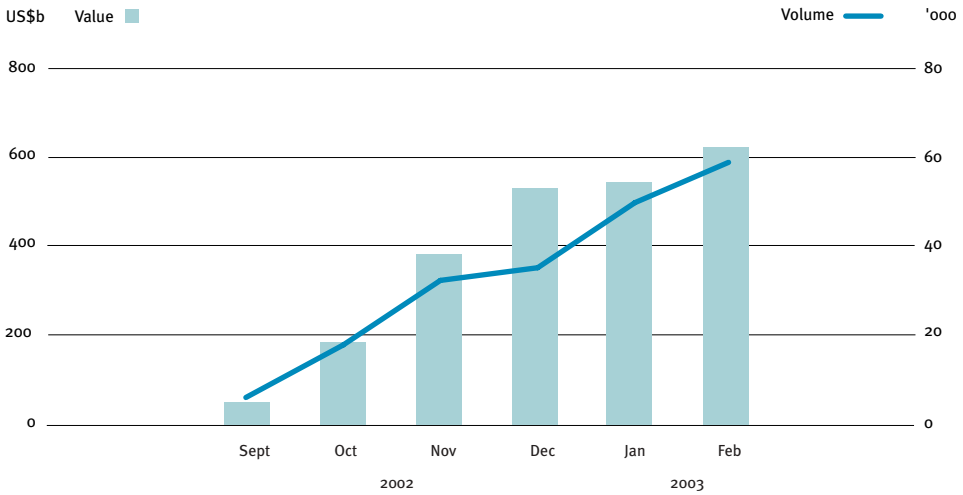
Although payments to CLS Bank are made on a net basis, they can on occasion be large and, in Australia, they occur late in the day. To assist banks in managing their liquidity, at a time when most Australian markets have closed, the Reserve Bank introduced a new facility designed to meet periodic and potentially large demands for intra-day liquidity at relatively short notice. The new facility, announced in July 2002, widens the range of acceptable collateral for intra-day repurchase agreements to include selected bank bills and certificates of deposit.

Since it commenced operations, the number and value of foreign exchange transactions settled by CLS Bank have grown strongly. Taking all eligible currencies together, around 60 000 transactions valued at US$600 billion are now settled each day; the Australian dollar leg of transactions accounts for around 1 200 transactions each day valued at around A$22 billion. Further strong growth in CLS activity is expected over 2003 as additional members and non-member banks, and their customers, settle through the CLS system.

CLS Bank is now making a significant contribution to the reduction of foreign exchange settlement risk, a longstanding objective of central banks, but it does not eliminate other risks associated with the finalisation of foreign exchange transactions, such as operational and liquidity risks. In the case of correspondent banking arrangements, for example, the CLS system actually results in a greater concentration of risks. The settlement of foreign exchange payments has always required banks to use correspondent (agent) banks in centres where they are not represented or their presence is not large. Many foreign banks use large Australian banks to settle their transactions in Australian dollars while Australian banks use large New York banks to settle transactions in US dollars. Banks may hold balances with their correspondent bank and incur a credit risk; alternatively, they may receive credit from the correspondent bank, in which case the latter takes on a credit risk. Banks have the opportunity to undertake careful due diligence before

CLS SETTLEMENTS: ALL CURRENCIES

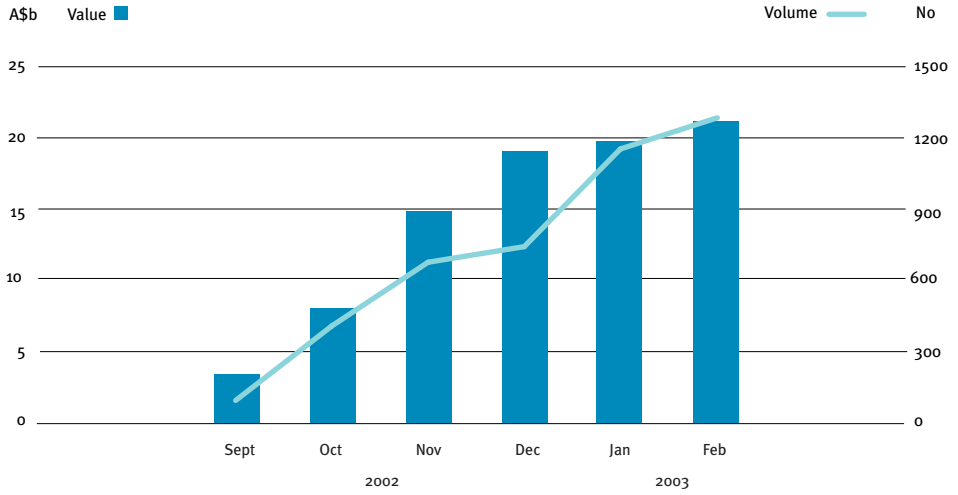
Daily average



Source: CLS Bank
In measuring total settlements, CLS Bank records both sides of each trade settled. The sale of A$10 million for US$5.5 million, for example, is counted as a settlement with a combined value of US$11 million.

CLS SETTLEMENTS: AUSTRALIAN DOLLARS

Daily average



Source: CLS Bank
In measuring settlements in individual currencies, CLS Bank counts only the relevant side of each trade settled. The sale of A$10 million for US$5.5 million, for example, would be measured as an A$ settlement with a value of A$10 million.

assuming such credit risks and are in a position to closely monitor and manage them. The CLS system gives a pivotal role to correspondent banks – in Australia, seven banks settle their own Australian dollar transactions directly with CLS Bank and settle all other Australian dollar transactions on behalf of other CLS members and their customers – and heightens the importance of prudent credit risk management in correspondent banking relationships.

Central banks are closely monitoring the CLS arrangements through a sub-group of the Committee on Payment and Settlement Systems at the Bank for International Settlements, chaired by the Federal Reserve Bank of New York and including the Reserve Bank.

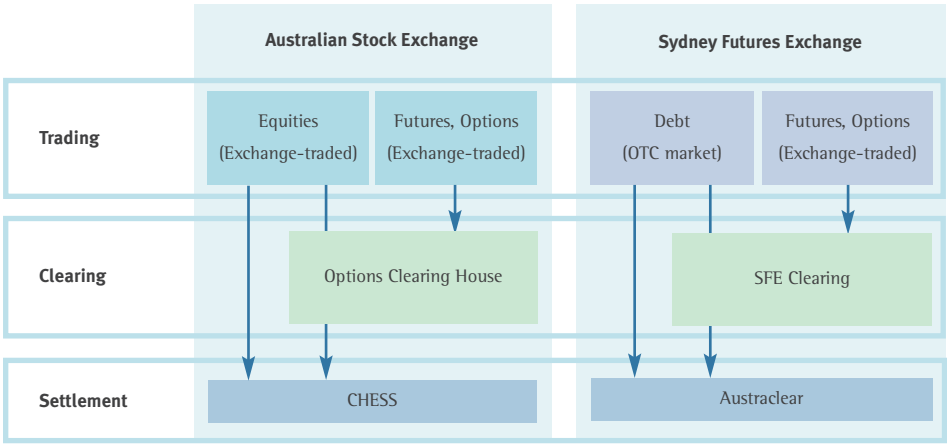
Securities clearing and settlement

Facilities that clear and settle transactions in securities such as bonds and equities, and in derivative instruments such as options and futures, are a critical part of Australia's financial architecture. The efficient and safe operation of these "back office" functions helps to ensure that disturbances, of external or domestic origin, do not spread throughout the financial system.

Clearing and settlement take place after market participants have entered into a transaction in a financial instrument. *Clearing* is the process of transmitting and reconciling instructions following the transaction, and calculating the obligations to be settled. Clearing may involve the netting of obligations and also the "novation" of the original trade to a central counterparty. *Settlement* is where the obligations of parties to the transactions are discharged. In a securities transaction, this typically involves the delivery of a security in return for payment; in a derivatives transaction, it usually involves only a one-way payment.

Clearing and settlement can be completed on a bilateral basis between the parties to the transaction but, in many circumstances, the process is conducted under the rules of an organised body. Where an organisation in Australia provides a regular mechanism for parties involved in financial product transactions to meet their obligations to each other, it is deemed to be a "clearing and settlement facility" and is required to hold a clearing and settlement facility licence under the *Corporations Act 2001*. Licences have been granted to the Australian Stock Exchange's ASX Settlement and Transfer Corporation (ASTC) (which operates the Clearing House Electronic Subregister System or CHESS) and Options Clearing House (OCH), and to the Sydney Futures Exchange's SFE Clearing Corporation (SFECC). Under transitional arrangements, another subsidiary of the Sydney Futures Exchange, Austraclear, is not required to obtain a licence until 11 March 2004.

AUSTRALIA'S CLEARING AND SETTLEMENT FACILITIES



As part of the new regulatory framework, the Board has formal responsibility for ensuring that licensed clearing and settlement facilities conduct their affairs in a way that is consistent with financial system stability. To this end, the licensed facilities are required to comply with financial stability standards set by the Reserve Bank. These standards aim to ensure that each licensed facility identifies and properly controls the risks associated with its operation; they proceed from the premise that the primary responsibility for risk management lies with the board and senior management of the facility. The Board has been overseeing the development of financial stability standards, which take a separate form for central counterparties and securities settlement systems because of the difference in their risk profiles. The Reserve Bank issued draft standards for public comment in November 2002 and expects to release its final standards around April/May 2003.

Standard for central counterparties

Central counterparties interpose themselves between the two parties to a trade and become the buyer to every seller and the seller to every buyer. As such, they become parties to trades and take on the same risks as any other market participant. If a party cannot meet its obligations to a central counterparty, the central counterparty could face liquidity pressures and eventual losses; if such difficulties were to threaten the solvency of the central counterparty itself, the consequences for financial stability could be severe. In Australia, OCH acts as a central counterparty for some transactions undertaken on markets operated by the Australian Stock Exchange, and the SFECC for futures and options and some debt transactions.

A central counterparty usually provides three key services to its members: the netting of financial obligations arising from trades; the calculation of resulting settlement positions; and a guarantee that trades will be settled, even in the event that one of

the original parties to the trade is in default. These services commence when the original contract between buyer and seller is replaced, or "novated", with two separate contracts – one between the buyer and the central counterparty, and the other between the central counterparty and the seller.

Central counterparty arrangements provide a number of benefits to financial market participants. Novated trades may be netted, which can mean substantial savings for members in the value of cash and securities needed to meet their obligations. In addition, a central counterparty takes on the credit risk associated with the trading of its members and manages this risk centrally. Members are able to concentrate on monitoring their credit risk against the central counterparty rather than the creditworthiness of other market participants. The corollary of these arrangements is that a central counterparty concentrates risks within the financial system. If these risks are not managed prudently, a central counterparty may be a source of systemic risk in the event of shocks to financial markets or to the economy more broadly. A range of specialised risk management procedures is available to a central counterparty for managing its credit risks. These include participation requirements that ensure that prospective participants have sufficient financial substance, and the use of "margining" techniques, settlement guarantee funds and pre-determined loss-sharing rules that provide the central counterparty with funds to cover the failure of participants. A central counterparty and its participants also face operational risks associated with business systems and procedures, and legal risks related to operating rules and participation agreements. These risks are present for most organisations but can be particularly important in central counterparties if they threaten critical financial infrastructure.

The Bank's draft financial stability standard for a central counterparty requires that it "... conduct its affairs in a prudent manner, in accordance with the standards of a reasonable clearing and settlement facility licensee in contributing to the overall stability in the Australian financial system, to the extent that it is reasonably practicable to do so". The Bank has set out a number of minimum requirements, and associated measures to be taken, which it considers are relevant in determining whether a clearing and settlement facility has met the standard. The requirements include:

- a well-founded legal basis;
- participation requirements that promote safety and integrity and ensure fair and open access;
- identification of the impact the facility has on the financial risks incurred by participants;
- settlement arrangements that ensure that exposures are clearly and irrevocably extinguished on settlement;
- appropriate systems, controls and procedures to identify and minimise operational risk; and
- reporting to the Reserve Bank.

There are also measures that are specific to central counterparties because of the risks they assume through novation. These address the nature and scope of novation; the risk-control arrangements of the central counterparty; default procedures when a participant is unable to fulfil its obligations to the central counterparty; and governance arrangements.

The Bank has issued guidance notes which provide further detail on how a licensee can meet the standard.

Standard for securities settlement systems

Securities settlement or "scorecard" systems maintain a record of title to securities and ensure that title changes take place according to instructions from the seller of the securities. Their main purpose is to record changes in ownership; in contrast to central counterparties, the systems do not become a counterparty to the trades they record. In Australia, there are two scorecard systems – the Austraclear system for debt securities, owned by the Sydney Futures Exchange, and the CHESS system for equities, owned by the Australian Stock Exchange.

A securities settlement system which acts as a scorecard provides a mechanism for counterparties to a securities transaction to meet their obligations to each other. The final settlement of a securities trade involves up to three steps: title to the security needs to be transferred from seller to buyer; funds must be transferred from the buyer's to the seller's deposit

account at their respective financial institutions; and, where buyer and seller hold accounts at different financial institutions, funds must be transferred from the buyer's financial institution to that of the seller across Exchange Settlement Accounts at the Reserve Bank. These steps need to be linked to ensure that transfer of securities occurs if, and only if, cash payment occurs. Such "delivery-versus-payment" (DvP) arrangements guarantee that the change in ownership of securities is final and irrevocable, freeing the buyer of a security to undertake further transactions with that security.

A securities settlement system does not take on credit risk and is not exposed to daily financial market volatility. Nonetheless, such systems do generate risks. DvP arrangements need to be robust in all circumstances so that settlement exposures between participants cannot build up. Systems also face legal risks that participants do not have clearly defined and enforceable title to securities, and operational risks that arise through the business activities of the facility.

The Bank's standard for securities settlement systems has the same objective as that for central counterparties, viz. that the licensee must conduct its affairs in a prudent manner and in a way that contributes to the overall stability of the Australian financial system. The Bank has also set out a number of minimum requirements that are common for both central counterparties and securities settlement systems. Other measures, however, are specific to securities settlement systems because of the scorecard nature of their business. These address, for example, the certainty of title to securities for participants and the mechanisms for dealing with the external administration of a participant.

Under the new regulatory framework, the Reserve Bank's responsibilities complement those of the Australian Securities and Investments Commission (ASIC), which has responsibility for corporate governance matters, market integrity, investor protection and all other matters pertaining to clearing and settlement facilities. ASIC also has responsibility for undertaking any legal action to enforce compliance with the requirements of either agency, including financial stability standards. The Reserve Bank and ASIC have released a Memorandum of Understanding (MOU) intended to promote transparency and regulatory consistency and help prevent unnecessary duplication of effort. In accordance with this MOU, the Bank has consulted extensively with ASIC on the drafting of the financial stability standards, and the agencies have also exchanged information in the preparation of their respective annual compliance reports to the Minister.