

PAYMENTS SYSTEM BOARD

ANNUAL REPORT

RESERVE BANK OF AUSTRALIA

1999

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OVERVIEW

The Payments System Board of the Reserve Bank was established on 1 July 1998, with a mandate to promote the safety and efficiency of the payments system in Australia. This marked a watershed in governance of the payments system. The new regulatory regime, introduced in response to the Financial System Inquiry (the Wallis Committee), was an acknowledgment of the importance of the payments system to financial stability and of the scope to reap significant gains in efficiency.

The Board has been given the backing of strong regulatory powers, unique among central banks. At the same time, the Government has indicated its preference for a co-regulatory approach and it has balanced the Board's powers with safeguards for private-sector operators.

To date, the Board's strategy has been to treat its powers as "reserve powers" to be exercised if other methods of persuasion and implementation prove to be ineffective. Its main priority over its first year has been to undertake a detailed stocktake of the safety and efficiency of the Australian payments system, as the basis for determining an initial work program.

Judged against international benchmarks, Australia has a very safe and robust payments system, particularly following the successful introduction of the real-time gross settlement (RTGS) system for high-value payments.

Assessments of efficiency, however, are more difficult. The Board's stocktake identified some areas in the retail payments system where the potential for improvement is obvious. One is the usage of direct debits, a highly efficient way of paying routine bills which has not found ready acceptance in Australia. Another is cheque-clearing times, where the considerable progress over the past year has yet to run its full

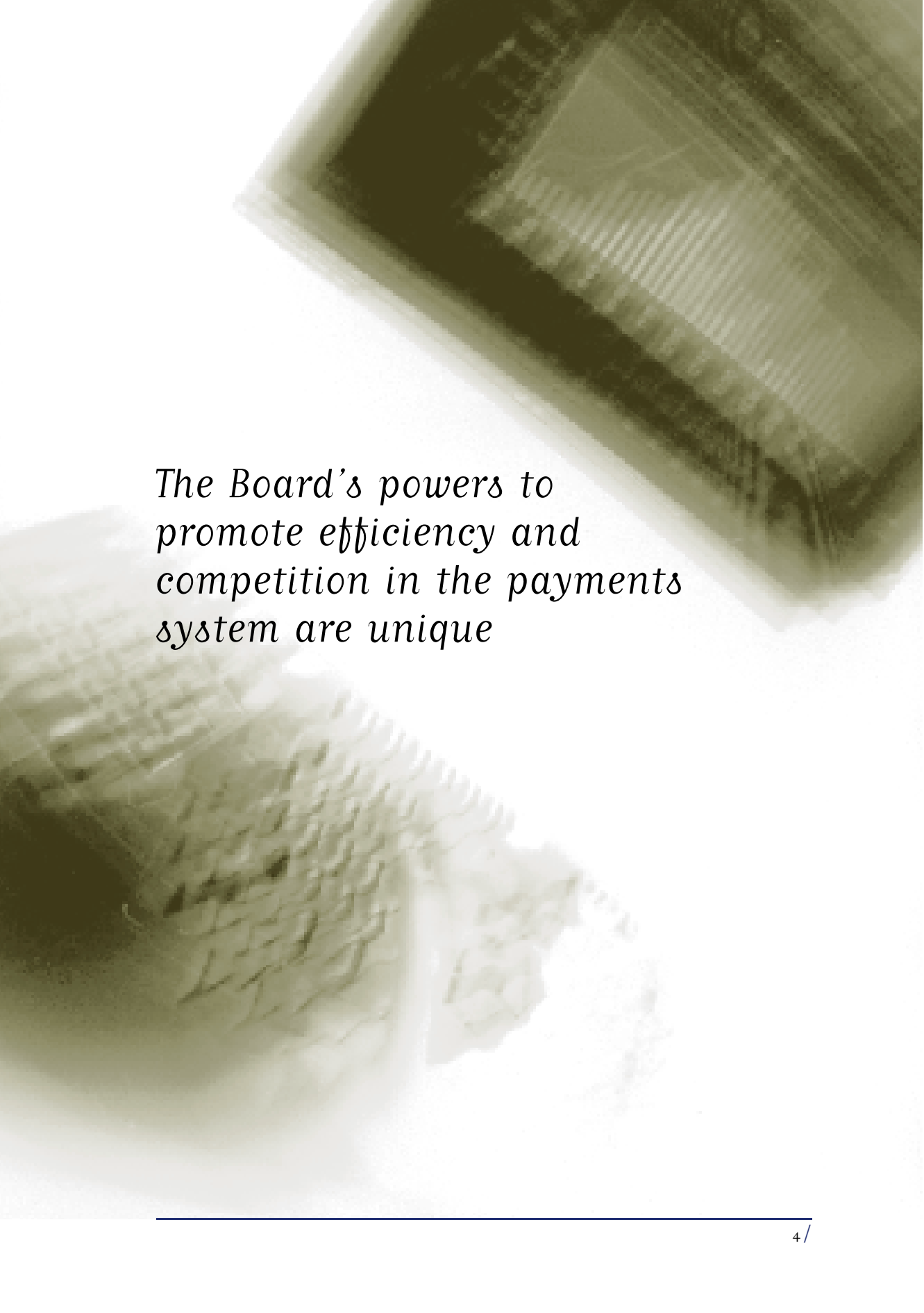


course. In other areas, however, inadequate data have made it difficult to benchmark performance against international best practice. To close this gap, comprehensive data on the costs of providing payment services will be collected from banks, other financial institutions and specialist payments firms.

This Report describes the Board's activities during its first year. As background, it outlines the origins of the Board and its responsibilities and powers. It also summarises the key findings from the Board's review of the Australian payments system that bear on judgments about safety and efficiency.

Steps the Board has taken include the widening of access to Exchange Settlement accounts at the Reserve Bank and strengthening the legal underpinnings of the RTGS system. The Board has also lent its weight to a number of initiatives designed to improve the safety and efficiency of the Australian payments system. On the safety side, the Board has pressed for the early inclusion of the Australian dollar in the CLS Bank, an important global initiative to reduce risks in the settlement of foreign exchange transactions, and has been overseeing Year 2000 preparations in the payments system. On the efficiency side, the Board has made it clear that it wishes to see a three-day cheque-clearing cycle become standard in Australia and it is exploring ways to encourage greater use of direct debits.

The Board and the Australian Competition and Consumer Commission have recently announced that they will be undertaking a study of arrangements for interchange fees and access in debit and credit card schemes. The study will seek to establish whether these arrangements are conducive to competition and efficiency in the payments system.



*The Board's powers to
promote efficiency and
competition in the payments
system are unique*



THE ROLE OF THE BOARD

ORIGINS OF THE BOARD

Until the establishment of the Payments System Board, the Reserve Bank exercised only informal oversight of the Australian payments system in the context of its broad mandate for financial system stability. The Australian Competition and Consumer Commission (ACCC) dealt with issues of access and competition in the payments system as part of its general responsibilities under the *Trade Practices Act 1974*.

Up to 1992, the Australian payments system had been controlled by the Australian Clearing House Association (ACHA), membership of which was made up of the banks, including the Reserve Bank, which then dominated cheque clearing. In 1992 the ACHA was replaced by the Australian Payments Clearing Association Ltd (APCA) which also included smaller banks, building societies and credit unions amongst its shareholders. Both the ACHA and APCA recognised the special role of the Reserve Bank but their rules gave it no more formal influence in decision making than other owners. The Bank also chaired the Australian Payments System Council (established in 1984), which advised the Treasurer on developments in the payments system but had no day-to-day role in operations or governance.

Like other central banks, the Reserve Bank's focus around that time was on improving the safety and stability of the payments system by reducing settlement, legal and operational risks, matters on which it was able to secure APCA's involvement and co-operation. The efficiency of the payments system was a secondary consideration. Even so, the governance of the payments system made it difficult to achieve efficiency gains that required industry co-operation; indeed, short-term concerns about competitiveness sometimes seemed to slow the pace of change.

In 1996, the Government established the Financial System Inquiry with a mandate to make recommendations "on the nature of the regulatory arrangements that will best ensure an efficient, responsive, competitive and flexible financial system... consistent with financial stability". The Inquiry devoted attention to the efficiency and governance of the Australian payments system, and concluded that there was considerable scope to increase efficiency without compromising safety. In reaching this conclusion, the Inquiry focused on Australia's heavy dependence on cheques, which resulted in relatively high payments system costs. Encouraging a change in the mixture of payment instruments, especially the substitution of electronic forms of payment for cheques, offered the potential for substantial gains in efficiency.

In summary, the Inquiry judged that Australia's payments system was not at international best practice. On the contrary, it was seen as being only in the middle of the field as far as efficiency was concerned.

The amounts at stake are substantial. The Inquiry itself lacked comprehensive data, but evidence from abroad suggests that the costs to financial institutions of providing payment services could be around half to one per cent of GDP. If the costs to consumers and firms are included, the same evidence suggests that as much as three per cent of GDP might be absorbed in making non-cash payments. If these figures applied to Australia as well, an "efficiency dividend" of only 10 per cent would generate savings in resources of over \$1.5 billion a year.

Having identified the problem, the Inquiry also reviewed the self-regulatory arrangements which governed the Australian payments system. While they had their strengths in technical matters, the Inquiry was unconvinced that the existing co-operative arrangements, in which the Reserve Bank had only a limited role, could be sufficiently responsive to the goals of public policy - particularly the goal of improving overall efficiency.

The Inquiry recognised the Reserve Bank's experience and expertise in the payments system and recommended that a "separate and stronger structure" should be created within the Bank to give it greater authority to pursue improvements in efficiency and competition. This "structure" was the Payments System Board. The Government accepted the Inquiry's recommendations, formally establishing the Board on 1 July 1998 and giving the Bank

extensive powers in the payments system. The Australian Payments System Council was disbanded.

THE BOARD'S RESPONSIBILITIES AND POWERS

The Board's responsibilities and powers are set out in four separate Acts:

- *Reserve Bank Act 1959*
- *Payment Systems (Regulation) Act 1998*
- *Payment Systems and Netting Act 1998*
- *Cheques Act 1986*

The *Reserve Bank Act 1959*, as amended, gives the Payments System Board responsibility for determining the Reserve Bank's payments system policy. It must exercise this responsibility in a way that will best contribute to:

- controlling risk in the financial system;
- promoting the efficiency of the payments system; and
- promoting competition in the market for payment services, consistent with the overall stability of the financial system.

Increasingly, central banks are being given explicit authority for payments system safety and stability, but the Board's legislative responsibility and powers to promote efficiency and competition in the payments system are unique. Inevitably, this responsibility must broaden the Bank's traditional focus on the high-value wholesale payment systems which underpin stability, to encompass the retail and commercial systems where large numbers of transactions provide scope for efficiency gains.

The Bank's wide-ranging powers in the payments system are set out in the *Payment Systems (Regulation) Act 1998*.



It may:

- "designate" a particular payment system as being subject to its regulation. Designation has no other effect; it is simply the first of a number of steps the Bank must take to exercise its powers;
- determine rules for participation in that system, including rules on access for new participants. The Reserve Bank now has the ultimate say on questions of access to the payments system, since access is inextricably linked to efficiency. In dealing with access matters, the Bank will work closely with the ACCC (see below);
- set standards for safety and efficiency for that system. These may deal with issues such as technical requirements, procedures, performance benchmarks and pricing; and
- arbitrate on disputes in that system over matters relating to access, financial safety, competitiveness and systemic risk, if the parties concerned wish.

The *Payment Systems (Regulation) Act 1998* also gives the Reserve Bank extensive powers to gather information from a payment system or from individual participants.

When it introduced this legislation, the Government said that it saw advantages in a co-regulatory approach and it built considerable flexibility into the new regulatory regime. In the first instance, the private sector will continue to operate its payment systems and may enter into co-operative arrangements, which need to be authorised by the ACCC. However, if the Bank is not satisfied with the performance of a payment system in improving access, efficiency and safety, it may invoke its powers. It may then decide, in

the public interest, to set access conditions or impose standards for that system. In doing so, however, it is required to take into account the interests of all those potentially affected, including existing operators and participants. Full public consultation is required and the Bank's decisions can be subject to judicial review.

The *Payment Systems and Netting Act 1998* gives the Board a role in removing two important legal uncertainties in the Australian payments system:

- under the so-called "zero hour" rule, a court may date the bankruptcy of an institution from the midnight before the bankruptcy order is made. Such a rule would threaten the irrevocable nature of payments in the RTGS system; the strength of this system is that payments cannot be unwound if a participant were to fail after having made payments earlier in the day. Similar concerns arise in the case of "delivery-versus-payment" arrangements in securities settlement systems, which provide liquidity to financial markets; and
- some payment systems in Australia settle on a multilateral net basis. Rather than routinely paying and receiving gross obligations, members of the system pay and receive the relatively small net amounts owed "to the system". This is convenient and efficient, but carries the risk that in the event of the bankruptcy of one of the parties, its administrator might "cherry pick" and insist that solvent institutions meet their gross obligations to pay it while refusing to honour its obligation to do likewise. Solvent parties would then receive little in return for their

payments to the failed institution, putting them under liquidity pressures and threatening their own solvency.

The *Payment Systems and Netting Act 1998* provides the basis for removing these uncertainties. The Act exempts transactions in approved RTGS systems from a possible "zero hour" ruling and ensures that approved multilateral netting arrangements cannot be set aside. The Act does not specify which particular systems are exempt; instead, as a means of providing flexibility, the Reserve Bank has been given the power to approve RTGS systems and multilateral netting arrangements which apply for such approval.

The *Cheques Act 1986* was amended in 1998 to provide that cheques that are settled in a recognised settlement system will be deemed dishonoured if the financial institution on which they are drawn is unable to provide the funds. This gives an important protection to institutions at which such cheques are deposited, because it allows them to reverse any provisional credits made on the basis of these cheques. The Reserve Bank has been given responsibility under the *Cheques Act 1986* to determine that a system for settlement of cheques is a recognised settlement system.

The Payments System Board is likely to acquire additional responsibilities as part of the Government's ongoing Corporate Law Economic Reform Program (CLERP). In March 1999, the Government released a consultation paper, *Financial Products, Service Providers and Markets - An Integrated Framework*, which proposes a role for the Board in the regulation of securities clearing and settlement systems.

Under the proposals, the regulation of clearing and settlement facilities would be the responsibility of the Australian Securities and Investments Commission (ASIC), with a significant role for self-regulation. However, the Treasurer may declare that a particular clearing and settlement facility is of such significance to the stability and integrity of the payments system that it should be regulated by the Board. Such a declaration would remove that facility from the coverage of the Corporations Law and place it under a comparable regulatory regime in the *Payment Systems (Regulation) Act 1998*. This Act would need to be amended to give effect to these proposals.

RELATIONSHIP WITH THE RESERVE BANK BOARD AND THE GOVERNMENT

The Reserve Bank now has two Boards. The *Reserve Bank Act 1959* provides a clear delineation between the Payments System Board, which has responsibility for the Bank's payments system policy, and the Reserve Bank Board, which has responsibility for the Bank's monetary and banking policies and all other policies except for payments system policy. Instances of conflict over policies should therefore be rare. However, if a conflict were to arise, the view of the Reserve Bank Board would prevail to the extent that there was any inconsistency in policy. If there are disagreements between the Boards on questions of jurisdiction or inconsistency of policy, they are to be resolved by the Governor, who chairs both Boards.

Members of the Payments System Board are not directors of the Reserve Bank in terms of the *Commonwealth Authorities and Companies Act*



1997. However, they are subject to those sections of that Act which deal with the conduct of officers and directors, including disclosure requirements, use of inside information and disqualification.

The Payments System Board is required to inform the Government of its policies. In the event of a difference of opinion between the Government and the Board, the provisions of the *Reserve Bank Act 1959* provide a mechanism for dispute resolution.

RELATIONSHIP WITH THE ACCC

The ACCC has a longstanding role in the Australian payments system. Payment systems often rely on co-operative arrangements between participants which are otherwise competitors; such arrangements therefore have the potential to contravene the provisions of the *Trade Practices Act 1974*. However, if the ACCC judges the arrangements as being, on balance, in the public interest, it may authorise them. Over recent years the ACCC has authorised a number of such arrangements, particularly those operated by APCA for cheque clearing, direct entry and high-value transactions. With the enactment of the *Payment Systems (Regulation) Act 1998*, there is an onus on the Reserve Bank and the ACCC to take a consistent approach to policies on access and competition in the payments system. This has been facilitated through a Memorandum of Understanding (MOU) between the two parties signed in September 1998. The MOU makes it clear that:

- the ACCC is responsible for ensuring that payments system arrangements comply with the competition and access provisions

of the *Trade Practices Act 1974*, in the absence of any specific Reserve Bank initiatives. Under its adjudication role, the ACCC may grant immunity from court action for certain anti-competitive practices, if it is satisfied that such practices are in the public interest. It may also accept undertakings in respect of third-party access to essential facilities; and

- if the Reserve Bank, after public consultation, uses its powers to impose an access regime and/or set standards for a particular payment system, participants in that system will not be at risk under the *Trade Practices Act 1974* by complying with the Bank's requirements.

The effect is that the ACCC retains responsibility for competition and access in a payment system, unless the Bank designates that system and follows up by imposing an access regime and/or setting standards for it. If the Bank does so, its requirements are paramount. Designation does not, by itself, remove a system from the ACCC's coverage.

In terms of the MOU, Reserve Bank and ACCC staff are in close contact on relevant matters. The Governor and the Chairman of the ACCC also meet at least once a year to discuss issues of mutual interest in the payments system.



*Debit and credit cards are now
more popular than cheques,
but direct debits lag*



THE AUSTRALIAN PAYMENTS SYSTEM

The Australian payments system is a broad term which describes the payment instruments by which individual payments are made or funds transferred, ranging from cash to sophisticated mechanisms on the Internet; payments clearing arrangements by which financial institutions exchange the resulting instructions; and payments settlement arrangements for the final transfer of value between financial institutions.

The Payments System Board has undertaken a detailed review of the Australian payments system, looking at how its characteristics have changed over the past decade and, where possible, "benchmarking" it against other countries. This review has been the basis for the Board's preliminary assessment of the efficiency and safety of the payments system.

The payments system covers two distinct types of payments: retail (which includes commercial) and high-value. Retail payments account for almost all payments by number but only a small part of total values exchanged; they are where efficiency gains are most likely to be found. High-value payments are small in number but account for most of the value of payments exchanged; they are critical to the stability of the payments system.

AUSTRALIA: PAYMENTS CLEARED 1998

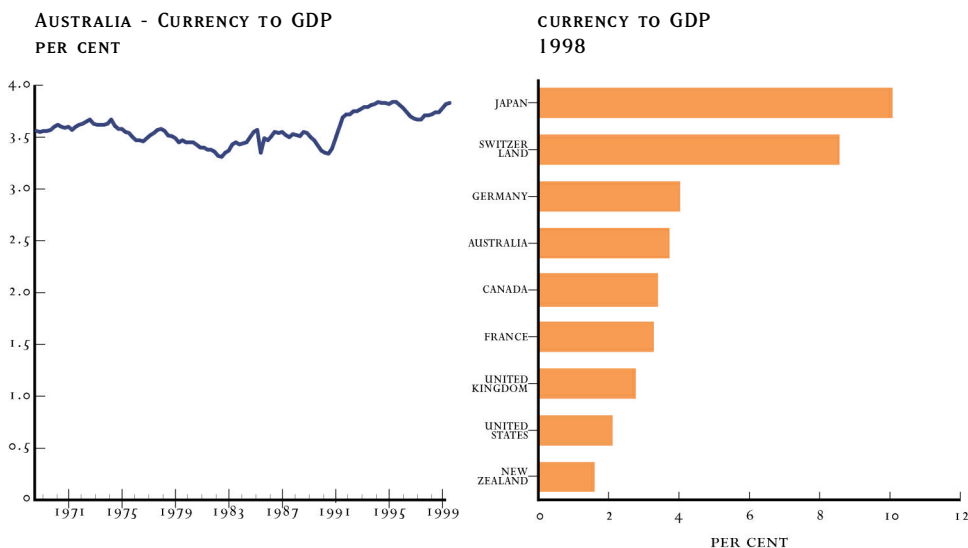
	RETAIL	HIGH-VALUE
Purpose	Retail and commercial payments	Foreign exchange, money market trades, corporate payments
Mechanism	Cash, cheques, direct credits and debits, cards	Real-time gross settlement
Daily turnover*	\$20 billion	\$100 billion
Average daily number*	8 1/2 million	16 000

*Excluding cash

RETAIL PAYMENTS

CASH

The Australian propensity to use cash has not declined. Although flow data on the number and value of cash transactions are not available, stock data suggest that cash is probably still the most important retail payment instrument. The stock of currency (notes and coins in the hands of the non-bank public) can be compared, on a per capita basis, with expenditure or shown as a ratio to GDP. Either way, the use of cash appears to be just as widespread in the late 1990s as it was in the 1980s.



Automated teller machine (ATM) withdrawals provide another proxy for cash transactions. This does not measure the total value of cash transactions because a single currency note can be used many times before being returned to a financial institution, but it does give a lower bound. Annual withdrawals from ATMs are around \$60 billion, exceeding the value of payments made by electronic funds transfer at point-of-sale (EFTPOS) and credit cards combined, indicating that cash still outstrips these payment instruments.

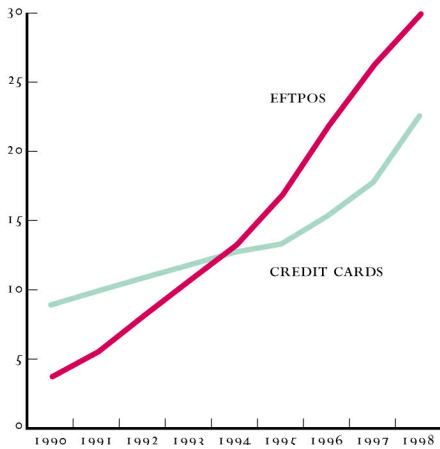
The continued importance of cash is not unique to Australia. Indeed, cash is even more popular in some other countries, and Australia is only in the middle of the field when currency to GDP ratios are compared.

NON-CASH RETAIL PAYMENTS

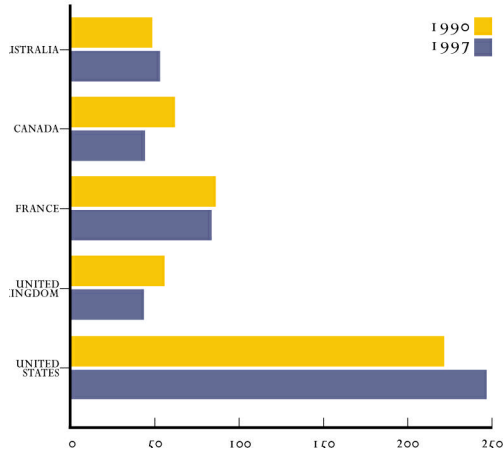
Although the use of cash remains well entrenched, non-cash payment instruments are becoming increasingly important in the retail payments system in Australia. Australians have always been keen users of cheques. The number of cheques each person writes annually has risen slightly over the 1990s, but cheques as a share of non-cash payments have declined substantially (from 50 to 36 per cent over the four years to 1998) in the face of the growing popularity of other means of payment, particularly debit and credit cards; together, these cards are now more frequently used than cheques.



NUMBER OF CARD PAYMENTS PER CAPITA



NUMBER OF CHEQUE PAYMENTS PER CAPITA 1990 vs 1997



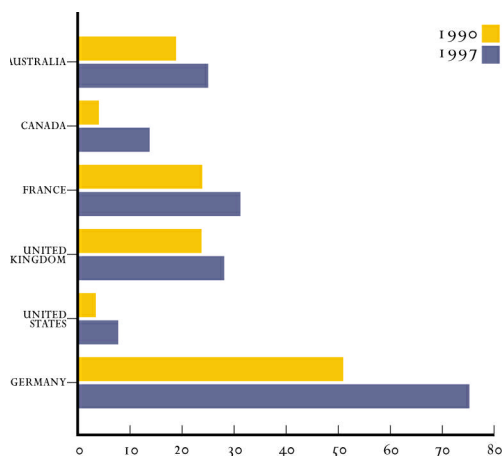
NUMBER OF NON-CASH RETAIL PAYMENTS PER CENT, 1998

Cheques	36
EFTPOS	22
Direct entry credits	19
Credit cards	17
Direct entry debits	6
	100

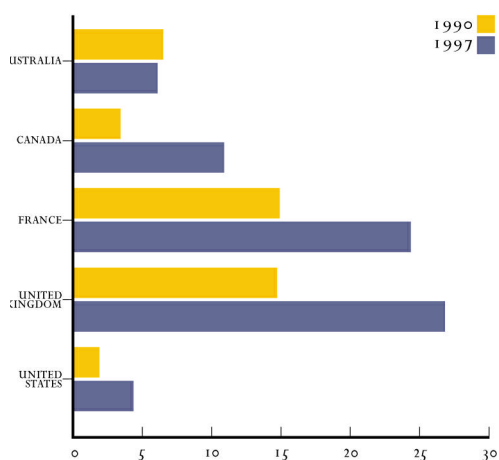
use countries, the share of payments by cheque has declined and in some - namely France, the United Kingdom and Canada - the number of cheque payments per capita has also declined. In contrast, the number of cheque payments per capita in Australia and the United States has been on the rise.

In the retail payments area, industrial countries divide roughly into two categories - those that use cheques extensively and those that use credit transfers ("giro payments"). Australia falls into the first category, along with the United States, the United Kingdom, Canada and France. Most of the European countries and Japan are in the second. In all the high-cheque-

NUMBER OF DIRECT CREDIT PAYMENTS PER CAPITA
1990 vs 1997



NUMBER OF DIRECT DEBIT PAYMENTS PER CAPITA
1990 vs 1997



Direct credits to customers' accounts at financial institutions are widely used in Australia for recurring bulk payments of salaries, pensions, interest and dividends, health fund refunds and social security payments. Usage has grown steadily over the 1990s, as has been the case in all G10 countries. Nevertheless, Australia is not a high user of direct credits by international standards; in a number of European countries, direct credits are also heavily used for single payments by individuals to other individuals and companies through giro systems.

Direct debits have always been a relatively little-used payment instrument in Australia. Though a convenient and relatively low-cost way of meeting recurring bills, the number of direct debit transactions per capita has actually fallen in Australia over the past decade. This is in sharp contrast to countries with payment patterns comparable to Australia and, in fact, to the experience of every G10 country.

In contrast to their reluctance on direct debits, Australians have taken to card payments with enthusiasm. At the beginning of the 1990s, EFTPOS and credit cards together accounted for around 15 per cent of non-cash payments but that figure has now risen to almost 40 per cent.

In summary, the key features of the Australian payments system are that:

- despite a decline in relative importance, cheques remain the most frequently used non-cash payment instrument; but
- with their strong growth over recent years, debit and credit cards *together* are now more important than cheques; and
- direct debits are the least used of payment instruments and Australia lags well behind other countries.



EFFICIENCY OF THE RETAIL PAYMENTS SYSTEM

The Financial System Inquiry concluded that there was considerable scope to increase efficiency in the Australian payments system, that is, to meet the needs of those using the payments system with fewer resources. On the basis of its preliminary stocktake, the Board generally concurs with that view but it is mindful that definitive conclusions are some way off.

An assessment of efficiency in the payments system is not a simple task. As a minimum, reliable data are needed on the costs of producing payment services, to enable a meaningful benchmarking of costs with other countries. Such data are not available in Australia.

In addition to costs, there are two other important dimensions of efficiency. The first is performance. Minimising production costs does not, of itself, maximise efficiency if it is at the expense of performance. Faster processing of transactions, increased accessibility, more convenience and improved reliability and control are all elements of a payment system which can increase efficiency, even at higher cost. As discussed below, recent improvements to the cheque-clearing system have provided important efficiency gains to consumers and small business, despite the cost of the project to financial institutions. Quality of service needs to be taken into account in any benchmarking exercise. The second dimension is pricing. A payment system will not be efficient unless the relative costs of payment instruments are reflected in their relative prices, so that consumers have appropriate signals on which to base their decisions.

The data needed to measure efficiency rigorously are extensive. The Board has commissioned a comprehensive data collection from banks, other financial institutions and payments service providers, and preparations are well under way. The information gathered will provide a basis to benchmark the costs and performance of the Australian payments system against international best practice. It should also shed light on some puzzles about the pricing of payment instruments - particularly cheques and cards - revealed in the Board's initial stocktake.

Overseas evidence suggests that paper-based payment instruments such as cheques are more expensive than electronic instruments and that automated direct credits and debits are the least costly payment method. If this ordering of costs also applies in Australia, as would be expected, it does not appear to be fully reflected in pricing. Although interpretation is complicated by fee-free transactions, banks in Australia tend to impose a higher charge for over-the-counter transactions than for others; cheque transactions also usually attract a higher fee than electronic transactions. In many cases, however, the fee for an EFTPOS transaction is similar to that for writing a cheque.

TRANSACTION FEES — AUGUST 1999

	ANZ	COLONIAL STATE	COMMONWEALTH	NATIONAL	ST. GEORGE	WESTPAC
	<i>Access Flexible Option</i>	<i>State Basic Account</i>	<i>Streamline Account</i>	<i>National Flexi Account</i>	<i>Everyday Account</i>	<i>Classic Account</i>
No. of free transactions	8 ¹	5	5 ¹	8 ²	8	8
Account-keeping fee (per month)	\$6.00	-	\$3.00	\$4.00	\$5.00	\$5.00
OTC withdrawal	\$2.50	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00
Cheque	\$0.65	n.a.	\$0.60	\$1.00	\$0.50	\$0.65
EFTPOS	\$0.40	\$0.50	\$0.40	\$0.50	\$0.50	\$0.65
ATM withdrawal						
— Own bank	\$0.65	\$0.50	\$0.60	\$0.50	\$0.50	\$0.65
— Other bank	\$1.50	\$1.50	\$1.25	\$1.25	\$1.50	\$1.25
Telephone transaction	\$0.40	\$0.50	\$0.40	-	\$0.20	\$0.65
Bill payments	\$0.40	\$0.50	\$0.40	\$0.30	\$0.20	\$0.65

¹ Maximum of 2 over-the-counter

² Maximum of 4 over-the-counter and cheque
n.a. not applicable

Australians are relatively heavy users of cheques, which are probably the most costly instrument for retail payments. If other payment methods could be substituted, the resource costs of the payments system could be considerably reduced. As a minimum, this would require a charge on cheque usage which reflected its relative cost; it would also require the ready availability of acceptable alternatives priced to reflect their costs.

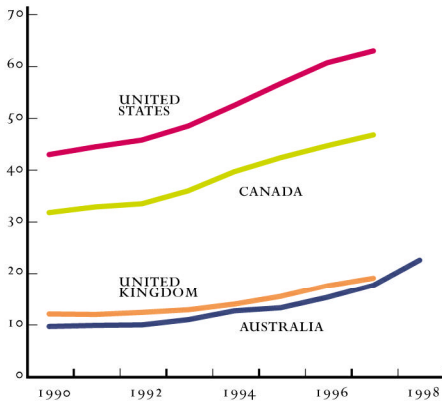
Although already a mature product, credit cards have grown in popularity over recent years in Australia and other industrial countries. Credit cards are being used for new classes of payments, including theatre tickets, mail order and, increasingly, utility bills. The Internet is likely to provide another boost to popularity. Underlying this shift in payment patterns seems to be the spread of loyalty and

other reward programs. These schemes can have the effect of making the marginal cost of each transaction to the customer negative. However, the cost of the transactions to the banks and the card companies is positive, and merchants bear those costs directly through merchant service fees (which are passed on to all customers, not only those using credit cards). The fees paid to credit card issuers appear to be an important source of revenue funding loyalty schemes. This pricing structure, encouraging as it does the use of credit cards, may prove to be impeding the efficient allocation of resources in the retail payments system.

Loyalty schemes also appear to be having an effect on the market for a close substitute, namely, direct debits. Australia is falling well behind comparable countries in the use of direct debits for routine bill payments. Faced



NUMBER OF CREDIT CARD PAYMENTS PER CAPITA



with a choice of paying a utility bill with an instrument that grants loyalty points and an interest-free period (but which can be relatively costly to provide), or one that requires a willingness to give up a degree of control to billers and financial institutions (but which is relatively cheap to provide), Australian consumers have responded rationally to inefficient price signals and opted for the credit card rather than the direct debit.

HIGH-VALUE PAYMENTS

In June 1998, Australia introduced its real-time gross settlement (RTGS) system for high-value payments. Under this system, all high-value payments are settled individually, as they are made, using funds in institutions' Exchange Settlement (ES) accounts at the Reserve Bank. Payments are "prefunded", in that they are made only if the paying institution has sufficient funds in its ES account.

There are three high-value payment streams which settle on an RTGS basis. The core system, where the exchange of value takes place, is the Reserve Bank Information and Transfer System (RITS), an electronic depository and settlement system for Commonwealth Government securities (CGS), which also provides access to ES accounts. The other two streams are Austraclear, an electronic depository and settlement system for other debt securities, and the SWIFT Payment Delivery System (PDS), the main vehicle for making payments which do not have an associated securities transaction. Overall, RTGS payments average around \$100 billion each day and account for over 90 per cent of the value of payments exchanged between financial institutions in Australia.

RTGS TRANSACTIONS 1998/99 – DAILY AVERAGE

	SYSTEM	VALUE (\$ BILLION)	NUMBER (THOUSANDS)
CGS and money market transactions	RITS	13.8	0.7
Other fixed-interest and money market transactions	Austraclear	21.3	2.6
Foreign exchange, corporate transactions, etc	SWIFT PDS	66.7	12.5

SAFETY OF THE PAYMENTS SYSTEM

Australia's RTGS system replaced a deferred net settlement system under which interbank obligations accumulated throughout the day and were not settled until 9.00am the following day. The RTGS system, in contrast, prevents the build-up of unsettled obligations and has sharply reduced interbank settlement exposures. It has made the Australian payments system much more robust.

The safety and stability of payment systems have been a major preoccupation of central banks over recent years. An initiative is under way to codify the desirable features of payment systems of systemic importance and to develop a set of guiding principles and practices. This work is being carried out by the Committee on Payment and Settlement Systems at the Bank for International Settlements, and the Reserve Bank has been fully involved in the exercise. The work is not yet finished, but five main themes that are emerging from it - legal underpinnings, risk control, timely settlement, access and oversight - emphasise Australia's recent progress in improving the safety and stability of its payments system.

As in most other countries, Australia's payments system arrangements grew up largely as a matter of convenience and convention. But closer inspection of the legal underpinnings by the industry and the Reserve Bank revealed a number of gaps and uncertainties. The main concerns were that:

- transactions might be declared void under a so-called "zero hour" ruling;
- payments netting arrangements might not be enforceable; and
- banks might have to pay out on cheques deposited with them, even if the bank on which they were drawn was unable to settle for them.

Two key pieces of legislation which came into force last year - the *Payment Systems and Netting Act 1998* and amendments to the *Cheques Act 1986* - give the Payments System Board a basis for dealing with these concerns. The Board has taken advantage of this legislation and its response is explained later in this Report.

Prior to the implementation of Australia's RTGS system, the payments system was subject to unacceptably high levels of settlement risk. Most participants could neither measure the risk nor control it. Now, over 90 per cent of the value of payments exchanged in Australia are settled on an RTGS basis, eliminating settlement risk for those payments. The Reserve Bank is also working with the Australian Payments Clearing Association to strengthen settlement arrangements in those clearing streams which continue to settle on a deferred net basis, by ensuring that they will have the protections afforded by the *Payment Systems and Netting Act 1998* and the *Cheques Act 1986*.



High-value transactions are now subject to more timely settlement, that is, continuously throughout each business day rather than at 9.00am the following day. This has moved Australia from being well behind international best practice to being unambiguously at best practice. Survey data recently published by the Reserve Bank show that the RTGS system has also made an important contribution to reducing foreign exchange settlement risk for the Australian dollar leg of foreign exchange transactions.

Before the RTGS system, the access of many banks to the high-value payments system was through agency arrangements in the paper clearing system, or through a high-value electronic system operated by five of the largest banks. This had the effect of concentrating risks in a limited number of banks and making smaller banks dependent on their commercial relationships with their larger rivals. All banks now have direct access to the various streams which operate on an RTGS basis.

Finally, oversight of the Australian payments system has been clarified and strengthened through the introduction of the new regulatory framework, with the Payments System Board at its centre. There is no doubt about the Board's authority or its ability to initiate change where this is deemed necessary.

Overall, the safety and stability of the Australian payments system scores highly against these broad principles. It would not have done so, however, before the RTGS system was introduced.

The Payments System Board acknowledges that it inherited a payments system in robust condition, but the agenda in this area is not complete. At present, the Board is closely following two issues which are fully engaging the Reserve Bank. These are the preparations for inclusion of the Australian dollar in the proposed CLS Bank and the concerted effort being made by participants at all levels to ensure that the Australian payments system is ready for the Year 2000. Both issues are discussed in the next part of this Report.

SAFETY OF AUSTRALIA'S PAYMENTS SYSTEM

	BEFORE JULY 1998	NOW
Legal underpinnings	Significant gaps	Identified gaps closed
Settlement risk	High and uncontrolled	Reduced by over 90 per cent
Timely settlement	Next day	Continuously (for high-value payments)
Access	Through agents (for many institutions)	Direct (for high-value payments)
Oversight	Informal	Statutory



The Board remains concerned that not all customers are sharing in improvements in cheque clearing



THE BOARD'S FIRST YEAR

The initiatives taken by the Payments System Board during 1998/99 have addressed both aspects of its mandate: the promotion of competition and efficiency on the one hand, and safety and stability on the other. The Board has liberalised access to Exchange Settlement (ES) accounts and has taken advantage of the new regulatory framework to strengthen the foundations of the RTGS system. In other areas, the Board has relied on information-gathering and consultation with industry participants rather than on the formal exercise of its regulatory powers.

COMPETITION AND EFFICIENCY

ELIGIBILITY FOR EXCHANGE

SETTLEMENT ACCOUNTS

In its January 1997 submission to the Financial System Inquiry, the Reserve Bank noted that the introduction of Australia's RTGS system for high-value payments provided scope to widen access to ES accounts at the Bank. ES accounts are the means by which providers of payment services settle obligations which they have accrued in the clearing process. Under the RTGS system, ES accounts are conducted on a strictly prefunded basis and the Reserve Bank does not take on a credit exposure to account-holders. There is also less risk of disruption spreading throughout the system if one participant were to fail.

The Financial System Inquiry recommended that access to ES accounts be liberalised, and the Government agreed that access should be

widened on the basis of clear and open guidelines determined by the Payments System Board.

For many years, access to ES accounts was restricted to banks. Banks were the only providers of payment services and were required by the *Banking Act 1959* to hold such accounts (this requirement was removed from July 1998). The Reserve Bank's supervision of banks gave it a degree of confidence that banks would be able to meet their settlement obligations and maintain their ES accounts in credit at all times.

When building societies and credit unions developed as alternative providers, their industry organisations argued that their members were competitively handicapped by having to depend on banks, with which they were directly competing, for some critical payment services. While building societies and credit unions could provide card and direct entry payments, they needed to rely on banks to settle their obligations. This added operational complexity, gave competitors insight into their business and increased their costs. In response, Special Service Providers (SSPs) were established to provide settlement services for building societies and credit unions, respectively, giving these industries greater ability to compete with banks. Two SSPs, then supervised by the Australian Financial Institutions Commission, were granted ES accounts in 1994. Because they were new organisations with relatively untested capacity in the settlement process, restrictions were placed on the transactions they could settle and collateral had to be posted to protect against the risk that they might be unable to meet their obligations.

Since the mid 1990s, there has been a second wave of competition in the payments business. A wide range of non-traditional payment providers, some of which are not deposit-takers or supervised financial institutions, are now playing a more active role. Some new participants believe that their ability to compete with traditional providers is limited in much the same way as building societies and credit unions had been.

Although an ES account is not a prerequisite for participation in the payments system, holding one can reduce participants' risks by allowing them to use a risk-free settlement medium. It can also affect their competitive position and lower their costs by reducing dependence on agency arrangements with an institution that is otherwise a competitor in payments.

At the same time, conducting ES accounts can pose risks to a central bank in multilateral net settlement systems, such as those used to settle low-value payments in Australia. These risks arise because the central bank is also responsible for financial system stability. If an institution did not have funds to meet its settlement obligations, settlement could not proceed and other institutions might, in turn, be unable to meet their obligations. Such a result would be very disruptive to the payments system and could threaten overall financial system stability. Different types of collateral arrangements can be built into multilateral net settlement systems to deal with the failure of a participant, but if these protections proved ineffective, the threat of systemic disruption could pressure the central bank to fund the settlement obligations of the failed institution.

If it did so, it would put its balance sheet (and ultimately taxpayers' funds) at risk by providing funds that may not be repaid.

In widening eligibility for access to ES accounts, the Board sought to strike a balance between enhancing efficiency and limiting the Reserve Bank's exposure to unacceptable risk. The new arrangements it announced in March 1999 allow all providers of third-party (customer) payment services to seek access to an ES account. However, applicants must have a need to settle clearing obligations with other providers and the liquidity to meet these obligations under routine, seasonal peak and stress conditions.

Institutions authorised and supervised by the Australian Prudential Regulation Authority (APRA) are already required to meet rigorous capital and liquidity requirements on an ongoing basis. Provided they can satisfy the Reserve Bank that they have the capacity to meet their settlement obligations, they are eligible for ES accounts without special conditions. However, where institutions have only limited payments experience, they may be required to lodge collateral to cover their participation in retail systems for a transition period, until it is clear that their business is consistent and predictable and their competence has been demonstrated.

Organisations not supervised by APRA will need to demonstrate that they have sufficient financial substance and that they have liquidity policies appropriate to their business. Where these organisations operate in deferred net settlement systems (but not RTGS), they will, with one exception, be required to lodge



collateral on an ongoing basis. The exception is that there are no collateral requirements for organisations that are always net receivers in payments clearing arrangements. Where collateral requirements apply, they will be set in relation to an institution's maximum expected net settlement obligations.

The Board's expectation is that this liberalisation of access should contribute to competition and efficiency, but probably at the margin. Since the new eligibility criteria were announced, the Reserve Bank has held discussions with a number of non-bank institutions about the possibility of opening ES accounts, but no new accounts have been set up.

CHEQUE-CLEARING TIMES

Cheques remain an important payment instrument in Australia, largely because they are convenient and give customers a good degree of control over the timing of payments. Nonetheless, the cheque is old technology and expensive compared to electronic means of payment, and some have argued that it is counterproductive for financial institutions to invest in making cheque processing more efficient. The Board does not accept this argument; it believes that the Australian community is entitled to a payments service that is of world standard. It has shared the community's longstanding frustrations at the costs imposed on customers - small to medium-sized businesses and retail customers alike - who have had to wait up to five business days or more to gain access to cheque deposits.

The decision about when to provide access to a cheque deposit is currently one for each

individual deposit-taking institution. When a cheque deposited at one financial institution is drawn on another institution, the industry rules and processes under which the cheque is cleared and a dishonour advised can limit how quickly an institution can make funds available to its customer, without incurring the risk that the cheque will subsequently be dishonoured. Speeding up industry cheque-clearing processes is therefore a prerequisite to making funds available more quickly.

For this reason, the Board took an early and close interest in APCA's project to introduce electronic clearing and dishonour of cheques. This project had been some years coming to fruition. Late in 1998, responding to concerns that its momentum might be flagging, the Chairman of the Payments System Board wrote to the chief executives of banks, and the industry associations for building societies and credit unions, seeking their assurance that they would provide the staffing and other resources needed to meet APCA's timetable. The Board is pleased that they did so and that APCA's project was implemented on schedule on 30 April this year.

Under the new electronic arrangements, an institution at which a cheque is deposited on a Monday will be in a position to know by Tuesday evening (either directly or through its clearing agent) whether the cheque has been paid. The institution could thus make the funds available on the Wednesday - that is, on a "three-day" cheque-clearing cycle - without the risk of a late dishonour. Such a cycle would bring Australia close to world's best practice in this area.

**AVAILABILITY OF CHEQUE FUNDS*
(NUMBER OF BUSINESS DAYS)**

	FUNDS AVAILABLE FOR WITHDRAWAL	FUNDS EARNING INTEREST
Australia	3-4	1
Canada	1	1
New Zealand	5	1
United Kingdom	4-5	3
United States	2-6	1

* Day of deposit is day 1

The Board would like to see the three-day cheque-clearing cycle become standard in Australia. The only impediments now to achieving this result are the internal systems and procedures of the institutions themselves. Accordingly, the Chairman of the Board has again written to the chief executives seeking details of when their institution makes funds available to its retail and small business customers, and of its plans for moving to three-day cheque-clearing.

Two major banks, three retail banks and twelve other banks have reported to the Board that they now make funds for cheques cleared electronically available on a three-day cycle (many also have special arrangements with some customers to make funds available more quickly). Some building societies and credit unions also meet this standard. The Board commends those institutions for this progress, but it remains concerned that not all customers of financial institutions are sharing in the improvement in efficiency.

**BANKS WITH THREE-DAY AVAILABILITY
OF FUNDS* (AS AT 31 AUGUST 1999)**

Adelaide Bank
Australia and New Zealand Banking Group
Asahi Bank
Bank of Queensland
Bank of America
Banque Nationale de Paris
Chase Manhattan Bank
Deutsche Bank
Dresdner Bank
IBJ Australia Bank
Macquarie Bank
National Australia Bank
Reserve Bank of Australia
Standard Chartered Bank Australia
State Street Bank and Trust Company
Toronto Dominion Bank
United Overseas Bank

*Some banks operating in wholesale markets do not have retail or small business customers



STUDY OF INTERCHANGE FEES FOR DEBIT AND CREDIT CARDS

Debit and credit card transactions involve a series of "interchange fees" between the financial institutions involved. These are the bank, building society or credit union which issues the card (the card issuer) and the institution which provides banking services to the merchant in conjunction with the transactions (the merchant acquirer). For example, when its customer withdraws cash from another institution's ATM, the issuer pays a fee to the operator of the ATM; this fee is often passed on to the consumer. Similarly, when its customer uses an EFTPOS facility provided by another institution, the issuer pays that institution and, again, the fee may be borne by the consumer. In credit card transactions, the interchange fee flows from acquirers to issuers. The merchants pay merchant service fees to their acquirers at least equal to the interchange fee.

While these interchange fees are usually not transparent to the card-holder or sometimes to the merchant, they are an essential part of the pricing structure in card schemes. They determine the revenue flows associated with card transactions, the costs ultimately borne by merchants and card-holders, the incentives to use and accept credit and debit cards, and the terms on which financial institutions and other payment providers can gain access to card networks. Interchange fees therefore have important implications for the efficiency of the retail payments system and they have been an obvious focus of attention for the Board.

Other recent developments on this issue have attracted the Board's attention:

- in 1997, the ACCC asked APCA to require its members to implement "efficient pricing principles" in setting interchange fees for EFTPOS and ATM interchanges, as a condition for authorisation of its proposed rules for the Consumer Electronic Clearing System. The ACCC was concerned that interchange fees could unreasonably restrict access to ATM and EFTPOS networks. APCA has subsequently advised the ACCC that it does not have the capacity to undertake self-regulation of interchange arrangements;
- some participants in ATM and EFTPOS arrangements have suggested that interchange fees for EFTPOS, in particular, are anti-competitive, making it difficult for new and smaller players to enter the business. Interchange fees for EFTPOS in Australia run in the opposite direction to those overseas, suggesting that the bilateral negotiation of fees in Australia has a different rationale from the centralised setting of fees in many other countries;
- interchange fees for credit cards may be encouraging the use of credit cards relative to more efficient instruments; and
- merchants have expressed concerns that restrictions on membership of credit card schemes place them in a worse competitive position on the fees they bear than is the case for debit card transactions.

Against this background, the Board and the ACCC have agreed to conduct a study of interchange fees for ATMs, EFTPOS and credit cards. This is in line with the recommendations of the

Financial System Inquiry, which itself lacked access to sufficient data in this area to reach any conclusions.

The objectives of the study are to:

- obtain information on interchange fees paid by financial institutions;
- clarify the basis on which interchange fees are currently set, looking particularly at the role of costs. For ATM and EFTPOS systems, this will require an understanding of how the bilaterally negotiated fees are arrived at; for credit cards it will be how common fees are determined;
- obtain information on current restrictions on credit card scheme membership; and
- assess whether interchange fees and membership arrangements are encouraging efficient provision of debit and credit card services.

The study will draw on the Reserve Bank's specific knowledge of payments issues and the ACCC's wide experience in access and pricing issues. It is expected to take around 12 months to complete.

DIRECT DEBITS

Direct debits are probably the most efficient means of paying regular bills or recurring obligations. However, while all major countries are further embracing this means of payment, Australia is slipping backwards. The Board believes that a greater take-up of direct debits can be achieved, and would deliver a substantial improvement in the efficiency of Australia's retail payments system.

Details of how Australian households pay their bills are not available but the Reserve Bank has gathered some information from some major billers, which together issue around 140 million bills each year.

BILL PAYMENTS PER CENT, 1998

Over-the-counter	59
Mail - mainly cheques	19
Credit cards over the phone	15
Direct debits	4
Direct credits	2
BPAY	1
Total	100

The charges facing billers for these different payment methods vary widely. The most expensive are over-the-counter payments through agents; the least expensive are direct debits, though they can involve set-up costs for billers.



DIRECT CHARGES TO BILLERS FOR A \$250 UTILITY BILL

	\$
Over-the-counter	1.00-5.05*
Mail - mainly cheques	0.40-0.90
Credit cards over the phone	3.75
Direct debits	0.15
BPAY	0.60

*Including merchant service fees if credit card used

The Board has been exploring with major billers the types of initiatives that might increase acceptance of direct debits in Australia. It has also been talking to participants in direct debit systems in the United Kingdom, France and Germany. Its assessment, at this stage, is that a greater take-up of direct debits is unlikely without the kind of consumer safeguards that have been introduced abroad and without concerted industry promotion. Consumer safeguards could include:

- assurances that any payment queried will be refunded promptly and unconditionally and that any disputes will be resolved quickly;
- caps on the amount that can be taken in any single bill payment;
- flexibility in nominating days for payments; and
- arrangements to allow the customer to approve each direct debit as it falls due.

To provide a basis for promoting direct debits to the Australian community, the Board would like to see the development of a Code of Conduct for direct debit billers. The Code would include a range of safeguards for consumers, and billers who adhere to the Code could be clearly identified. The Reserve Bank will be

working with billers, financial institutions and customers over the next twelve months to develop the Code.

SAFETY AND STABILITY

FOREIGN EXCHANGE SETTLEMENT RISK

During the 1980s and early 1990s, central banks in industrial countries concentrated attention on reducing settlement risks in their high-value domestic payment systems. In Australia's case, the effort culminated in the introduction of the RTGS system in June 1998. More recently, with their domestic payment systems strengthened, central banks and supervisory authorities have turned their focus to the risks associated with the settlement of foreign exchange transactions. Reflecting the enormous volume of foreign exchange market turnover in global markets, foreign exchange settlement risk facing individual market participants (which are mainly banks) can be large. If a participant failed to meet its settlement obligations, this might cause significant problems for other participants and could, in the first instance, threaten domestic payment systems.

The settlement of foreign exchange transactions faces particular complexities because, although each leg is settled through domestic RTGS (or other high-value) systems, settlement occurs in different countries, often in different time zones and frequently through the use of agent (correspondent) banks. Settlement risk lasts from the time at which the payment instructions for the currency sold can no longer be cancelled until the time at which the currency bought has been received with finality. This risk is more than just a time zone problem.

A report by G10 central banks (the "Allsopp Report", 1996) found that foreign exchange settlement risk was too large - frequently exceeding a bank's capital - and lasted too long. The Reserve Bank's 1997 survey of authorised foreign exchange dealers in Australia reached similar conclusions. It found that exposures lasting in excess of 24 hours were the norm and, in some cases, the period of exposure was more than three business days. At any point in time, the settlement exposure of the Australian market represented a multiple of its capital base. Follow-up reports, by G10 central banks (the "Sweet Report", 1998) and the Reserve Bank in 1999, have identified significant progress in the management of foreign exchange settlement risk but see the need for more to be achieved.

There are a number of avenues for reducing foreign exchange settlement risk. Individual banks can improve their own internal procedures and renegotiate arrangements with their correspondents, so that they can cancel payment instructions as late as possible (within the rules of the relevant payments system) and can confirm receipt of the currency bought as early as possible. Arrangements can also be put in place to make net rather than gross payments. These steps, respectively, can reduce the duration and amount of risk, but they do not remove it. Risk is fully removed only if both currencies in a foreign exchange transaction are settled simultaneously or on a "payment-versus-payment" basis: in simple terms, a bank pays if and only if its counterparty pays.

The pursuit of "payment-versus-payment" in foreign exchange transactions has been behind

proposals for a "continuous linked settlement" or CLS Bank, which is being developed by a group of major international banks. The CLS Bank will be a limited-purpose vehicle to facilitate the simultaneous settlement of participants' foreign exchange transactions in eligible currencies, across different time zones. It will be a US-chartered and supervised bank, operating in London for time zone reasons.

The initial proponents of the CLS Bank did not have any Australian representation and there was no early push for the inclusion of the Australian dollar in the scheme. The Australian dollar, however, is a major traded currency and one for which settlement risk is exacerbated by the time zone. The counterpart currency to over 90 per cent of Australian dollar transactions is the US dollar, which is settled in New York, 14 to 16 hours behind Sydney depending on the time of year. Australian banks also rely heavily on correspondent banks to settle US dollars, adding to the duration of risk because they must wait for statements from their correspondents before reconciling receipts.

The Australian dollar could be included as an eligible CLS currency only if there were a core of banks operating in Australia willing to be settlement members of the CLS Bank. A number of foreign banks operating in the Australian market were already shareholders in CLS Services (the holding company for the CLS Bank) and therefore eligible to be settlement members for the Australian dollar. The four major Australian banks became shareholders in CLS Services during 1998.



The Payments System Board recognises the importance of the CLS initiative in reducing foreign exchange settlement risk and has been keen to have the Australian dollar included as soon as practicable. Early in 1999, the Chairman of the Board wrote to the Chairman of CLS Services expressing concerns about apparent delays in including the Australian dollar in the initial "wave" of currencies to be settled by the CLS Bank. The letter drew out the importance of the Australian dollar in global foreign exchange market turnover and the tyranny of the time zone. In June 1999, CLS Services formally included the Australian dollar in an initial "wave" of seven eligible currencies, with settlement of the Australian dollar scheduled to begin by the end of March 2001. The Board welcomes this decision.

The Board is now taking a close interest in preparations for the inclusion of the Australian dollar; it will also have to formally approve an ES account for the CLS Bank to enable it to become a participant in Australia's RTGS system. The Reserve Bank is working productively with CLS Services and the local payments industry on the prudential and operational issues involved. These include the opening hours of the RTGS system and the implications for domestic liquidity management.

Payments to and from the CLS Bank will be made through settlement accounts it will hold with the central banks of eligible currencies. To achieve that, the opening hours of the various payment systems will have to overlap with the core hours of the CLS Bank, which will be 7.00am to midday Central European Time. In Australia's case, the RTGS system will need to

remain open into the evening, as late as 10.00pm during daylight saving. This will require changes in the RTGS system as well as the internal systems used by banks operating during the extended hours. Some changes might also be required of banks that do not have significant foreign exchange business.

Although individual transactions will be settled gross across the books of the CLS Bank, banks will pay in only their net short positions. On occasions, however, these net positions may be quite large and this may have implications for liquidity management by Australian banks, particularly since CLS payments will be made late in the Australian day. The advent of the CLS Bank may also significantly reduce the number of foreign-exchange-related transactions, which are currently an important component of the high-value payments made in Australia.

APPROVALS UNDER THE *PAYMENT SYSTEMS AND NETTING ACT 1998*

Under the *Payment Systems and Netting Act 1998*, the Board is able to grant protection to transactions in approved RTGS systems from a possible "zero hour" ruling. Before granting approval, the Reserve Bank must ensure that the regulations of the system are consistent with the conditions set out in the Act and do not allow participants to abuse the protection extended to them. In particular, the Reserve Bank must be satisfied that:

- there is potential for systemic disruption should a system participant go into external administration;
- there is a clear legal basis for the system;

- the rules governing the system identify a system administrator which has the appropriate resources, competence and integrity;
- there are system rules enabling the system administrator to suspend a settling participant, and/or any institution which it sponsors, which goes into external administration; and
- the system rules require a settling participant to assume the obligations of any participant whose transactions it settles, if that participant fails to fulfil those obligations. (A settling participant is an institution which can settle transactions on its own behalf and for other participants.)

In October 1998, the Board declared that the Reserve Bank Information and Transfer System (RITS) and Austraclear are approved RTGS systems in terms of the Act. The approvals ensure the finality of all RTGS transactions (including those delivered to RITS by APCA's SWIFT PDS), thus providing a legal underpinning for the elimination of settlement risk in Australia's RTGS system.

Under this same legislation, the Board also anticipates applications from APCA for protection of the multilateral netting arrangements that apply in its low-value clearing streams, and from APCA and Austraclear for their RTGS systems in fall-back mode, where they would operate as netting systems.

YEAR 2000 PREPARATIONS IN THE PAYMENTS SYSTEM

Because of its mandate for safety and stability, the Board has been overseeing the Year 2000 preparations of the Australian payments system. Like most other key sectors of the economy, the payments system is highly dependent on computer systems and telecommunications for its basic operations. This is true both with newer payment methods, such as EFTPOS, and more traditional means such as the cheque. With this in mind, the payments industry has undertaken a great deal of work to ensure that the various elements of the payments system continue to operate as usual in the Year 2000.

A comprehensive program to test the Year 2000 readiness of the Australian payments system got under way in October last year. The program was co-ordinated by APCA and covered the exchange of cheques, direct debit and credit transactions, debit and credit card payments in ATM and EFTPOS terminals, BPAY transactions and high-value payments. Importantly, it included the posting of transactions to the appropriate customer accounts. Banks, building societies and credit unions, as well as key payment service providers, participated in this industry-wide testing. They could do so only if they could confirm that their relevant internal systems were Year 2000 ready.

The Reserve Bank closely followed the progress of the testing program through direct contact with APCA staff and other specialists undertaking the work, receipt of regular written progress reports and membership of the industry



group responsible for monitoring the program. Where necessary, the Bank also lent its support to ensuring that deadlines were met. In this role, the Bank kept in regular contact with the Australian Prudential Regulation Authority (APRA) and other financial sector regulators. In its role as a provider of banking and settlement services, the Bank also participated directly in tests of the cheque, direct entry and high-value systems and a senior Bank officer co-ordinated the industry testing for high-value payments.

The testing program was successfully completed, on time, by 30 June. Because of this effort, the Australian public can expect that their electronic payment mechanisms, such as ATMs, EFTPOS and credit cards, will continue to work as usual over the New Year period.

The Reserve Bank is now working closely with the payments industry on contingency planning, to ensure that the payments system is well prepared for any unexpected disruptions. The Bank is co-ordinating a review of contingency procedures for systems which settle on an RTGS basis and has developed specific contingency procedures for the deferred net settlement arrangements applying to the cheque, direct entry and card-based clearing streams. The Bank has also been involved in industry contingency planning for low-value retail payment systems, including cheques, direct entry, ATMs and EFTPOS; plans were finalised at the end of August and will be refined and tested during the remainder of this year.

The Bank and APRA are establishing a joint communications centre which will operate over the New Year period. The centre will monitor

the operational status of the payments system and developments more generally, and will allow both institutions to communicate as necessary with financial institutions and other central banks and supervisory authorities.

Further details of the Reserve Bank's role in preparations for the Year 2000 can be found in *Year 2000 Preparations in the Australian Banking and Financial System*, available on the Bank's web site at www.rba.gov.au.

GLOSSARY OF TERMS AND ABBREVIATIONS

ACCC — Australian Competition and Consumer Commission

ACHA — Australian Clearing House Association

AFIC — Australian Financial Institutions Commission

APCA — Australian Payments Clearing Association Limited

APRA — Australian Prudential Regulation Authority

APSC — Australian Payments System Council

ASIC — Australian Securities and Investments Commission

ATM — Automated Teller Machine

BPAY — an electronic bill payment service owned by a consortium of banks, allowing payers to issue payment instructions via telephone or the Internet

CGS — Commonwealth Government securities

CLEARING — the process of transmitting, reconciling and in some cases confirming payment instructions prior to settlement; it may include netting of instructions and the calculation of final positions for settlement

CLERP — Corporate Law Economic Reform Program

CLS BANK — Continuous Linked Settlement Bank

DIRECT CREDIT — a payment initiated by the payer and made by the payer's financial institution crediting the payee's account at another financial institution

DIRECT DEBIT — a pre-authorised debit on the payer's bank account initiated by the payee



EFTPOS — *Electronic Funds Transfer at Point of Sale*

EXCHANGE SETTLEMENT (ES) ACCOUNT — *an account held at the Reserve Bank of Australia to settle obligations arising from the clearing of payments*

GIRO — *a form of direct credit widely used in Europe*

G10 — *Group of Ten countries: Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, Switzerland, United Kingdom, United States*

MULTILATERAL NET SETTLEMENT SYSTEM — *a settlement system in which each settling participant settles (typically by means of a single payment or receipt) the multilateral net settlement position which results from the payments made and received by it*

RTGS (REAL-TIME GROSS SETTLEMENT) — *a payment system in which processing and settlement take place in real time (continuously)*

RITS — *Reserve Bank Information and Transfer System*

SETTLEMENT — *the discharge of obligations arising from fund transfers between two or more parties*

SSPs — *Special Service Providers for the credit union and building society industries*

SWIFT (SOCIETY FOR WORLDWIDE INTERBANK FINANCIAL TELECOMMUNICATION) — *a co-operative organisation that operates a network for the exchange of payment and other financial messages between financial institutions*

SWIFT PDS — *SWIFT Payment Delivery System*

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CHAIRMAN : I J MACFARLANE

Chairman since 1 July 1998
Governor of Reserve Bank of Australia
Present term expires 17 September 2003



DEPUTY CHAIRMAN : J F LAKER

Deputy Chairman since 24 July 1998
Assistant Governor (Financial System)
Reserve Bank of Australia



G J THOMPSON

Chief Executive Officer
Australian Prudential Regulation Authority
Member since 17 August 1998



J I GERSH

Partner and Chairman of the Management Committee
of Arnold Bloch Leibler
Member since 15 July 1998
Present term expires 14 July 2003



S MCCARTHY

Director
Member since 15 July 1998
Present term expires 14 July 2003



J G THOM

Visiting Professor Macquarie Graduate School of Management
Member since 15 July 1998
Present term expires 14 July 2003



**RESERVE BANK
OF AUSTRALIA**

HEAD OFFICE

65 MARTIN PLACE
SYDNEY 2000

T: 02 9551 8111

F: 02 9551 8000

I: www.rba.gov.au

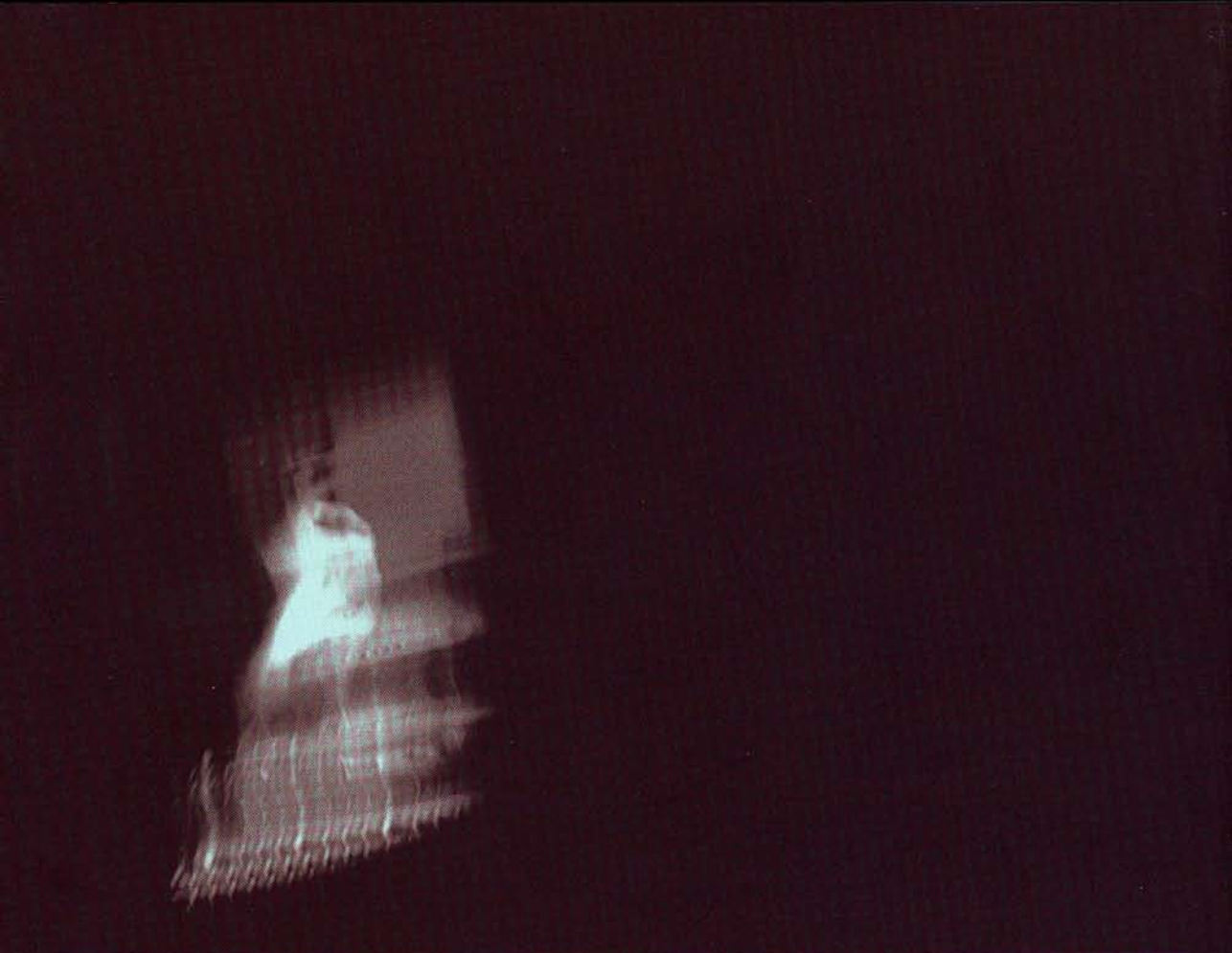
E: rbainfo@rba.gov.au

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THE MANAGER

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SECRETARY'S DEPARTMENT
RESERVE BANK OF AUSTRALIA

GPO BOX 3947
SYDNEY NSW 2001



PAYMENTS SYSTEM BOARD

The Bank's payments system policy is directed to the greatest advantage of the people of Australia; and the powers of the Bank under the *Payment Systems (Regulation) Act 1998* and the *Payment Systems and Netting Act 1998* are exercised in a way that, in the Board's opinion, will best contribute to:

- controlling risk in the financial system;
 - promoting the efficiency of the payments system; and
 - promoting competition in the market for payment services, consistent with the overall stability of the financial system.
-