



RESERVE BANK
OF AUSTRALIA

**Payments
System Board
Annual Report**

2011

Reserve Bank

Payments System Board

ANNUAL REPORT 2011

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Reserve Bank

Payments System Board

It is the duty of the Payments System Board to ensure, within the limits of its powers, that:

- the Reserve Bank's payments system policy is directed to the greatest advantage of the people of Australia;
- the powers of the Reserve Bank that deal with the payments system, set out in 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; and
- the powers of the Reserve Bank that deal with clearing and settlement facilities, set out in Part 7.3 of the *Corporations Act 2001*, are exercised in a way that, in the Board's opinion, will best contribute to the overall stability of the financial system.

Functions and Objectives of the Payments System Board

The responsibilities of the Payments System Board are set out in the *Reserve Bank Act 1959*. In particular, the Act requires the Board to determine the Reserve Bank's payments system policy so as to 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.

In order to give effect to these responsibilities, the Reserve Bank has powers that are set out in two Acts: the *Payment Systems (Regulation) Act 1998* and the *Payment Systems and Netting Act 1998*.

Under the *Payment Systems (Regulation) Act*, the Reserve Bank has the power to designate payment systems and to set standards and access regimes in designated systems. The Act also sets out the matters that the Reserve Bank must take into account when using these powers. The *Payment Systems and Netting Act* provides the Reserve Bank with the power to give legal certainty to certain settlement arrangements so as to ensure that risks of systemic disruptions from payment systems are minimised.

In addition, the *Reserve Bank Act* gives the Board responsibility for ensuring that clearing and settlement facilities contribute to the stability of the financial system. The relevant powers are set out in the *Corporations Act 2001*, which gives the Reserve Bank the power to determine financial stability standards for licensed securities clearing and settlement facilities.

This Report discusses the activities of the Board during 2010/11.

Governance

Composition of the Payments System Board

The Payments System Board comprises the Governor, who is Chairman, one representative of the Reserve Bank appointed by the Governor, one representative of the Australian Prudential Regulation Authority (APRA) appointed by APRA, and up to five other members appointed by the Treasurer for terms of up to five years. Details of the current members are set out on pages 5 and 6. Five members form a quorum at a meeting of the Board.

Meetings of the Payments System Board

The *Reserve Bank Act 1959* does not stipulate the frequency of Board meetings. Since its inception, the Board's practice has been to meet at least four times a year, and more often as needed; there were four meetings in 2010/11, with the November 2010 meeting held in Melbourne.

Table 1: Number of Meetings Attended by Each Member in 2010/11^(a)

Glenn Stevens	4	(4)
Malcolm Edey	3	(4)
John Laker	4	(4)
Joe Gersh	4	(4)
Robert McLean	4	(4)
Catherine Walter	4	(4)
Brian Wilson ^(b)	3	(3)

(a) Figures in brackets show the number of meetings each member was eligible to attend

(b) Brian Wilson was appointed to the Board on 15 November 2010

Conduct of Payments System Board Members

On appointment to the Board, each member is required under the Reserve Bank Act to sign a declaration to maintain confidentiality in relation to the affairs of the Board and the Reserve Bank. Further, members must by law meet the general obligations of directors of statutory authorities, as set out in the *Commonwealth Authorities and Companies Act 1997* (CAC Act). The CAC Act sets standards of conduct for directors and officers of Commonwealth authorities, with many of these requirements being modelled on comparable areas of the *Corporations Act 2001*. As such, members of the Payments System Board must:

- discharge their duties with care and diligence;
- act in good faith, and in the best interests of the Reserve Bank;
- not use their position to benefit themselves or any other person, or to cause detriment to the Reserve Bank or any person;
- not use any information obtained by virtue of their position to benefit themselves or any other person, or to cause detriment to the Reserve Bank or any person; and
- declare any material personal interest where a conflict arises with the interests of the Reserve Bank.

Members must also adhere to a Code of Conduct (the Code) that sets out specific requirements relating to confidentiality, conflicts of interest and public commentary on payments policy issues.

The confidentiality of information – including the Payments System Board materials and the discussion at the meetings – must be strictly maintained, including after members have left the Payments System Board. Members are also required to avoid any situation where they might be perceived as having acted with the benefit of knowledge not available to the general marketplace.

The Code requires conflicts of interest, whether of an actual or potential nature, and whether involving a member's personal or business affairs, to be promptly and fully disclosed. In the event that a member becomes aware of a conflict of interest associated with a particular issue facing the Payments System Board, the member is required to immediately disclose it to the Payments System Board, as required in the CAC Act, which also sets out how such conflicts are to be handled. Members considering taking on a material interest that might present, or might be perceived as presenting, some risk of conflict with their role as a Payments System Board member are required to consult the Governor before committing themselves.

In order to avoid any possibility of perceived conflicts that could damage the Reserve Bank's reputation, members are required to exercise due care in accepting from third parties entertainment, travel or accommodation, or any other benefit that is offered solely or mainly on the basis of membership of the Payments System Board.

Finally, the Code requires that members generally shall refrain from public commentary about current payments system policy issues, respecting the confidentiality of Payments System Board discussions. Members who, in the ordinary course of their activities outside the Reserve Bank, have occasion to discuss payments system policy matters generally, may do so on the basis that the views so presented are personal or affiliated with another institution, not the Reserve Bank. The Governor, as Chairman, and the Deputy Chairman will on occasion need to speak on payments system policy issues as part of their official duties, but in doing so will still respect the confidentiality of the Payments System Board discussions.

The Governor and the Deputy Chairman are required to adhere not only to the Code but also to the Reserve Bank staff code of conduct.

Where questions of interpretation of the Code arise, members shall consult with the Governor. Where issues arise that cannot be specifically foreseen in the Code, members will be expected to exercise sound judgement and behaviour consistent with the general principles outlined in the Code. Members will, where appropriate, consult with the Governor and, if necessary, the Treasurer.

Remuneration

Fees of the non-executive members of the Payments System Board are determined by the Remuneration Tribunal.

Indemnities

Members of the Payments System Board have been indemnified in accordance with section 27M of the CAC Act against liabilities incurred by reason of their appointment to the Board or by virtue of holding and discharging such office.

Payments System Board

August 2011



Glenn Stevens (Chairman)

Chairman since 18 September 2006
Governor
Reserve Bank of Australia
Chairman – Council of Financial Regulators
Present term ends 17 September 2013



Malcolm Edey (Deputy Chairman)

Deputy Chairman since 14 April 2009
Assistant Governor (Financial System)
Reserve Bank of Australia
Member – Council of Financial Regulators



John Laker AO

Chairman – Australian Prudential Regulation Authority
Member since 24 July 1998
Member – Council of Financial Regulators



Joe Gersh AM

Member since 15 July 1998
Present term ends 14 July 2013
Executive Chairman – Gersh Investment Partners Ltd
Chairman – Australian Reinsurance Pool Corporation
Director – Sydney Institute



Robert McLean AM

Member since 29 November 2006

Present term ends 28 November 2011

Chairman – Australia Program Advisory Board, The Nature Conservancy (Australia)

Director – LJ Hooker Pty Ltd

Director – The Centre for Independent Studies

Senior Advisor – McKinsey & Company



Catherine Walter AM

Member since 3 September 2007

Present term ends 2 September 2012

Chairman – Australian Synchrotron

Director – Australian Foundation Investment Company

Director – Victorian Funds Management Corporation

Director – Victorian Opera



Brian Wilson

Member since 15 November 2010

Present term ends 14 November 2015

Pro-Chancellor – University of Technology, Sydney

Director – Bell Financial Group Ltd

Member – Foreign Investment Review Board

Developments in Retail Payment Systems

Given its mandate to promote efficiency, the Board closely monitors developments in the Australian retail payments system. Developments during 2010/11 were consistent with the general trends of the past few years. The use of non-cash payment methods grew rapidly in 2010/11, with card use making a strong contribution, driven largely by debit cards, while cheque use continued to decline steadily. Survey data for 2010 suggest that cash use remains high in Australia, although its share of consumer payments has declined in the past three years, with debit cards being used for some low-value payments that had traditionally been made with cash. Other developments during the year included a further increase in credit and scheme debit card fraud for card-not-present transactions and a shift in the types of credit card products held following the automatic upgrade of gold to platinum cards by some institutions.

Trends in Retail Payments Use

Cash payments

In 2010, the Reserve Bank conducted its second major study into how individuals make payments (Consumer Payments Use Study) as part of its Strategic Review of Innovation in the Payments System.¹ One focus of the Study was the use of cash for consumer payments, for which little comprehensive data are otherwise available. The Study found that cash remains the most prevalent payment method for low-value transactions, accounting for 64 per cent of the number of consumer payments but just 34 per cent of the value.² This represents a significant decrease in both the number and value of payments – around 5 percentage points – from the 2007 Study.³ While cash was used more frequently than all other payment methods combined for payments up to \$50 at the time of the previous Study in 2007, the same is now true only for payments up to \$40, suggesting that cash is increasingly being used mainly for payments of low values. Card payments – particularly those made with a debit card – are responsible for the bulk of this shift away from using cash. Card payments accounted for around 24 per cent of payments under \$50 in 2010, up from 19 per cent in 2007.

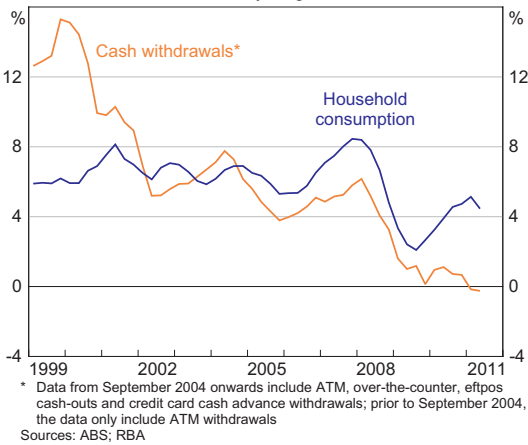
Consistent with the 2010 Study, data reported by financial institutions also suggest a longer-term shift away from cash payments. The value of cash withdrawals continued to contract in 2010/11, even as nominal household consumption grew by 4 per cent over the period (Graph 1).

1 Bagnall J, S Chong and K Smith (2011), *Strategic Review of Innovation in the Payments System: Results of the Reserve Bank of Australia's 2010 Consumer Payments Use Study*, RBA, June. The results of the Study are discussed further in the chapter 'Strategic Review of Innovation'.

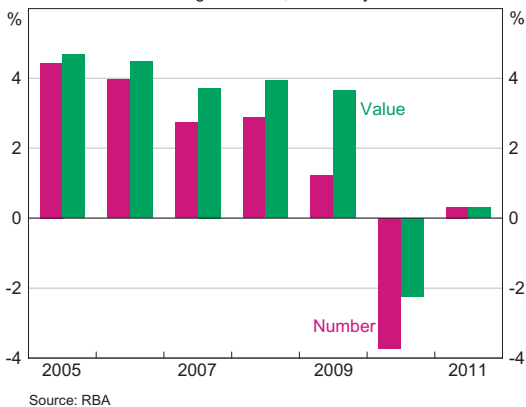
2 These comparisons are based on payment methods captured by both the 2007 and 2010 studies. To ensure that data from the two studies are comparable, the comparisons exclude payment methods added to the 2010 Study, such as internet/telephone banking and transactions above \$9 999. When all payment methods covered by the 2010 Study are considered, cash accounts for 62 per cent of the number and 23 per cent of the value of all payments by individuals.

3 Emery D, T West and D Massey (2008), 'Household Payment Patterns in Australia', in *Payments System Review Conference, Proceedings of a Conference*, Reserve Bank of Australia and Centre for Business and Public Policy at the Melbourne Business School, Sydney, 29 November 2007, pp 139–176.

Graph 1
Value of Cash Withdrawals and Household Consumption
 Year-on-year growth



Graph 2
ATM Withdrawals
 Annual growth rate, financial year



ATM withdrawals remained the most popular method for accessing cash in 2010/11, accounting for around 72 per cent of the total number and 61 per cent of the value of all cash withdrawals. Both the number and value of ATM withdrawals increased slightly in 2010/11 following sharp decreases in the previous year. Nonetheless, growth remains significantly lower than in the years preceding the introduction of direct charging in March 2009 (Graph 2). This suggests an ongoing effect of direct charging on consumer behaviour, with cardholders continuing to make less frequent visits to ATMs where they pay a direct charge, and making larger withdrawals on average, relative to the pre-reform period.

Obtaining cash with an eftpos transaction ('eftpos cash-out') is the next most frequently used means of accessing cash, accounting for 23 per cent of withdrawals. However, this accounts for only around 6 per cent of the total value of withdrawals since cash-outs – at around \$58 on average per withdrawal – are one-third of the size of an average ATM withdrawal. The relatively high number and low value of eftpos cash-outs may reflect the fact that these withdrawals are typically free to consumers and generally follow the purchase of goods or services. In 2010/11, the number and value of eftpos cash-outs increased by 7 per cent and 6 per cent, respectively, continuing the strong growth of recent years.

Over-the-counter (OTC) cash withdrawals account for around 2 per cent of the number of withdrawals but 28 per cent of the value. In 2010/11 their use declined slightly in both number and value. Cash advances on credit cards also continued their trend decline as a means of accessing cash.

Non-cash payments

The number of non-cash payments has increased steadily over the past few years, and recent trends in the use of individual payment methods have largely continued during 2010/11 (Table 2, Graph 3). The total number of non-cash payments grew by around 9 per cent during 2010/11 – higher than its average growth over the past five years – while the value of these payments was little changed. The average value of non-cash payments has consequently fallen, largely reflecting a fall in the average size of direct credit transactions. On average, Australians made 308 non-cash transactions per person in the year.

Table 2: Australian Non-cash Retail Payments

	2010/11		2010/11		Average annual growth, 2006/07–2010/11		
	Per cent of total		Average value	Growth, per cent		Per cent	
	Number	Value	\$	Number	Value	Number	Value
Cheques	4.0	10.6	5 146	-11.6	-5.2	-8.9	-4.4
Direct debits	10.0	37.9	7 387	3.6	2.6	5.4	3.5
Direct credits ^(a)	22.2	46.9	4 090	7.2	1.2	5.6	1.4
Debit cards	36.2	1.2	66	18.4	15.8	12.0	11.1
Credit cards ^(b)	23.3	1.7	145	5.7	5.7	4.5	5.5
BPAY	4.3	1.6	712	8.4	10.7	8.8	9.9
Total	100.0	100.0	1 938	9.3	1.4	6.5	1.7

(a) Excludes BPAY transactions; a reporting change by a bank caused a break in the series in 2009/10, increasing the number and decreasing the value of direct credits

(b) Excludes BPAY transactions

Sources: BPAY; RBA

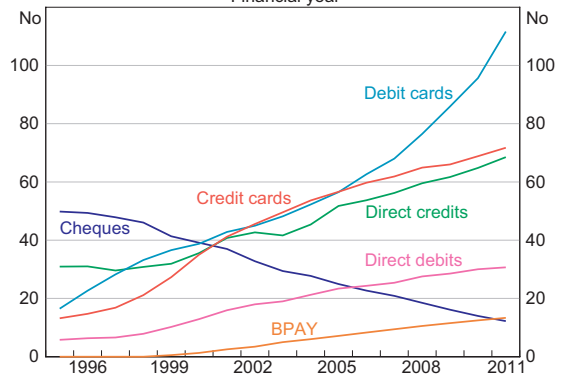
Around 60 per cent of these non-cash transactions were card payments, with an average of 112 debit card transactions and 72 credit card transactions made per person in 2010/11. Strong growth in the use of debit cards, at around 18 per cent, was the main driver of the overall growth in the number of non-cash payments. Card payments, however, are mainly used for mid-sized transactions and, therefore, accounted for only 3 per cent of the total value of non-cash payments. Direct entry transfers were the next most frequently used payment method in 2010/11, accounting for around one-third of the number of total non-cash transactions, with an average of 69 direct credit transfers and 31 direct debit transfers per person during the year. These payments tend to be relatively high in value, making up 85 per cent of non-cash payments.

The number of cheques written has continued its trend decline, with an average of only 12 cheques written per person in the year, compared with 50 cheques in 1995. As the number of cheques written has declined by more than the value of cheque payments, the average per-transaction value has increased to over \$5 000 per cheque, which suggests that they continue to be reserved for higher-value payments.

Card-based payments

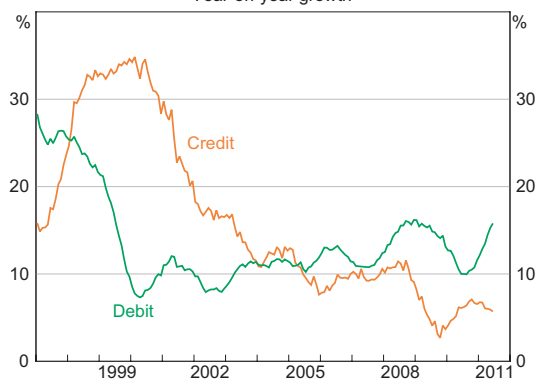
Around 4 billion card-based payments were made in 2010/11 for a total value of \$400 billion. This was an increase in the number of card-based payments of around 13 per cent in the year and an increase in the value of 10 per cent. While the average value of a card transaction fell, this reflects the increasing share of debit card use relative to credit cards; the average transaction values of both credit and charge cards, and debit cards were little changed in 2010/11, at \$145 and \$66, respectively.

Graph 3
Non-cash Payments per Capita*
Financial year



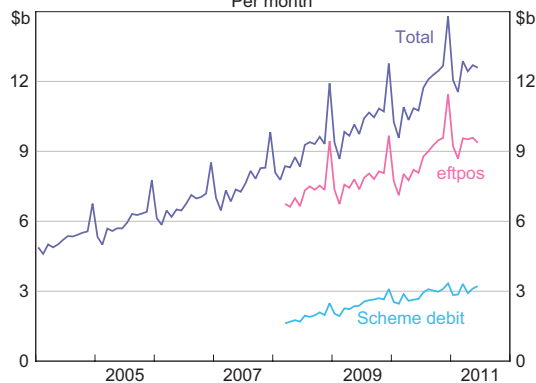
* Apart from BPAY, data from 2002 onwards are based on the RBA's Retail Payments Statistics. Data for earlier years come from APCA and the RBA, and have been adjusted for differences between these sources and the Retail Payments Statistics
Sources: ABS; APCA; BPAY; RBA

Graph 4
Value of Card Payments*
 Year-on-year growth



* RBA credit card data prior to March 2008 adjusted to remove BPAY transactions
 Sources: BPAY; RBA

Graph 5
Value of Debit Card Purchases
 Per month



Source: RBA

Growth in spending on debit cards accelerated to 16 per cent in 2010/11 from 10 per cent in 2009/10, while spending on credit cards slowed to around 6 per cent over the same period (Graph 4). The divergence may reflect households' continued caution in their borrowing behaviour.⁴ It may also partly reflect the continued reaction by both consumers and merchants to the Board's card payment reforms; there have been further declines in average reward benefits to holders of credit cards and an increase in the share of merchants levying a surcharge on credit cards (see 'Pricing and product offerings to cardholders' later in this chapter and 'Surcharging' in the next chapter).

Also contributing to the divergence in debit and credit card use has been substitution of debit cards for cash over the past few years. According to the Reserve Bank's Consumer Payments Use Study, consumers made an average of 3.4 debit card payments per week in 2010 – a significant increase on the average of 2.0 payments per week in 2007. By contrast, cash payments were largely unchanged over the same period, at an average of around 9 payments per week. One of the drivers of growth in debit card use over recent years has been the increased adoption of scheme debit cards, with the proportion of individuals making at least one payment per week on these cards almost doubling from 18 per cent in 2007 to 35 per cent in 2010. Reflecting this, growth in scheme debit payments had been outpacing

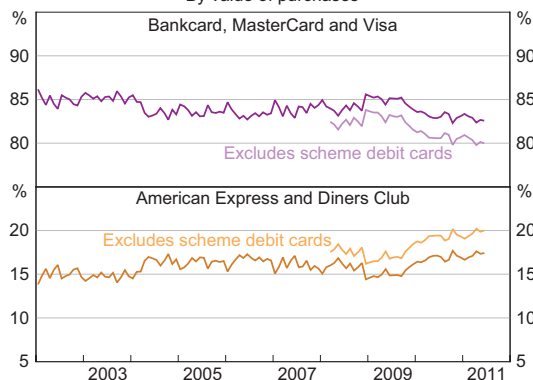
that of eftpos until 2010/11, albeit from a much lower base. During 2010/11, however, the number of eftpos purchases grew by 20 per cent and the value by 18 per cent, while growth in the number and value of scheme debit payments slowed to 12 per cent and 15 per cent, respectively. eftpos continues to account for around three-quarters of the total value of debit card purchases (Graph 5).

Within credit cards, the market shares of the three- and four-party schemes were little changed during 2010/11 (Graph 6). The combined market share of American Express and Diners Club has remained around 20 per cent, following a period of expansion in 2009/10 related to the issuance of 'companion' American Express cards to existing MasterCard and Visa cardholders by some of the major banks.⁵

4 For example, see RBA (2011), 'Household and Business Balance Sheets', *Financial Stability Review*, March, pp 43–57.

5 Some banks now offer their existing MasterCard or Visa credit cardholders a 'companion' American Express card on the same account, with cardholders able to earn more reward points on the latter card.

Graph 6
Market Shares of Card Schemes
 By value of purchases



Source: RBA

Online payments

The use of the internet to make retail payments has increased in recent years, accounting for around 17 per cent of the number and 15 per cent of the value of all non-cash retail payments in 2010/11. These payments were made in several ways, including by means of credit cards, scheme debit cards, BPAY, internet banking and specialised online payments providers such as PayPal. Given their increasing importance, the Reserve Bank has been monitoring market developments in online payments closely, and recently started collecting data from some specialised online payments providers to complement its regular data collection from financial institutions.

Internet banking is the most heavily used online payment method, accounting for 51 per cent of the number and 88 per cent of the value of online payments (Table 3). This reflects the use of internet banking for a wide variety of transactions, such as wage and salary payments, personal transfers and some types of corporate payments. BPAY – used mostly for bill payments – accounts for about another 24 per cent of the number of online payments and 10 per cent of the value. While credit and scheme debit cards also account for a sizeable share of the number of online payments, they account for only 2 per cent of the value. The specialised online payments providers currently constitute a relatively small share of the overall market, by both number and value.

Table 3: Online Payments
 Shares in the year to June 2011, per cent

	Number	Value
Internet banking	50.8	88.2
BPAY	23.7	9.8
Scheme credit and debit cards	21.6 ^(a)	1.8
Specialised online payments providers	3.9	0.2

(a) Includes double-counting of some PayPal transactions
 Sources: BPAY; RBA; specialised online payments providers

A distinct segment of the overall online payments market is the 'online retail' market for the purchase of goods and services. This market is largely characterised by the use of payment methods that provide real-time confirmation of payments to merchants and, as such, excludes BPAY and internet-banking transfers. This can

Other electronic payments

The number of direct credits increased by around 7 per cent in 2010/11, slightly faster than the five-year average, while the number of direct debits increased by around 4 per cent, somewhat slower than the longer-term trend. The value of direct credits and debits remained broadly steady, and average transaction sizes declined.

BPAY transactions continued to grow strongly at a pace close to the recent annual average. The number of transactions increased by around 8 per cent, and the value of transactions increased by around 11 per cent.

be important for online purchases, where consumers often want to complete transactions quickly so that goods or services can be booked, downloaded or shipped immediately. Currently only credit cards, scheme debit cards and the specialised online payments providers allow for this real-time functionality in Australia.

The online retail market is estimated to have accounted for around one-quarter of the total number of payments made online in 2010/11, but only 2 per cent of the value. Credit cards are the dominant payment method in this segment, making up around 61 per cent of the number and 76 per cent of the value of all online retail payments (Table 4). Nonetheless, the use of both scheme debit cards and specialised online payments providers has grown rapidly in recent years.

Table 4: Online Retail Payments
Shares in the year to June 2011, per cent

	Number	Value
Credit cards	61.1 ^(a)	75.5 ^(b)
Scheme debit cards	23.8 ^(a)	15.6 ^(b)
Specialised online payments providers	15.1	8.9

(a) Includes double-counting of some PayPal transactions

(b) Adjusted for the double-counting of some PayPal transactions

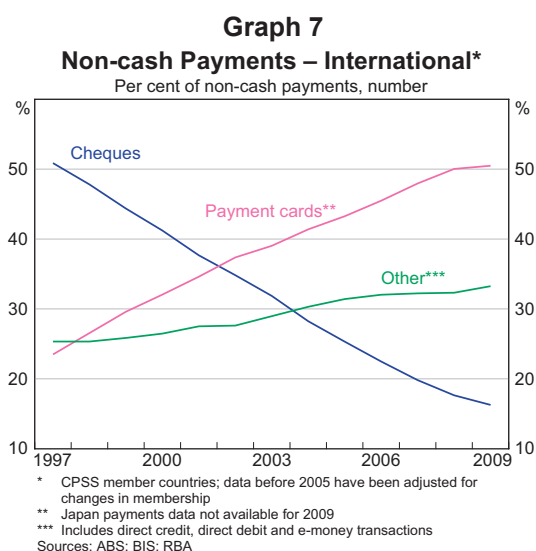
Sources: RBA; specialised online payments providers

Cheques

The number and value of cheques fell by around 12 per cent and 5 per cent, respectively, in 2010/11, which continued the long-term trend of declining cheque use. Cheques accounted for around 4 per cent of non-cash retail payments in 2010/11, down from 5 per cent in 2009/10 and around 10 per cent in 2005/06. The value of an average cheque payment increased by around 7 per cent over the year, in line with the trend of recent years. Together, these data suggest that cheque use is declining for low-value retail payments (for which there are several suitable electronic substitutes) but continues for high-value retail payments.

Payment trends internationally

International trends in payment instrument usage over the past few years have been similar to those in Australia. Electronic payment instruments, particularly cards, continue to increase in importance while cheque use declines (Graph 7). In 2009 (the latest period for which data are available), card payments made up half of all non-cash retail payments internationally compared with less than one-third in the late 1990s. Other electronic means of payment, mainly credit transfers and direct debits, have not grown as quickly as card payments, accounting for around one-third of non-cash payments in 2009. Cheque use has declined consistently over the past decade: cheques were used for less than 20 per cent of non-cash payments in 2009, compared with just under half of all transactions in 1998. In response to this decline, a



phasing out of cheques has already occurred in the Netherlands, and other countries – such as Canada, Ireland and New Zealand – have initiated discussions on the future of cheques. In 2009, the UK Payments Council proposed closing the central clearing of cheques by 2018; however, in July this year, following extensive public consultations, the Payments Council announced that this was no longer planned.

While the trend towards increased use of electronic payment instruments is broad based, there are some significant differences across countries in the types of payment instruments used (Table 5). In particular, Australia, Canada, Korea and the United States remain relatively heavy users of credit cards, even though the use of debit cards has been growing rapidly in these countries over recent years. In France, Germany and the Netherlands, direct debits are used extensively, while in Belgium, Sweden and Switzerland, direct credits are widely used. Cheques are still used frequently in Canada, France and the United States, though use is falling. Cash remains dominant in China, India and Mexico, with 20 or less non-cash payments per person in 2009.

Table 5: Non-cash Retail Payments in Selected Countries
Number per capita, 2009

	Cheques	Direct debits	Direct credits	Debit card ^(a)	Credit card ^(b)	Total ^(c)
Australia	15	29	75 ^(d)	90	67	277
Belgium	1	24	88	82	10	211
Brazil	9	22	37	12	15	96
Canada	34	22	34	115	79	284
China	1	na	1	3 ^(e)	na	5
France	51	51	43	107 ^(e)	na	255
Germany	1	103	71	24	5	205
Hong Kong	na	na	na	14	48	na
India	1	<1	<1	3	<1	5
Italy	6	10	20	15	10	66
Japan ^(f)	1	na	11	<1	41	61
Korea	19	27	50	22	97	218
Mexico	4	<1	7	4	4	20
Netherlands	na	77	90	125 ^(e)	na	302
Russia	<1	1	14	5	<1	26
Saudi Arabia	<1	<1	<1	42	1	46
Singapore	16	11	6	41	na	84
South Africa	2	11	9	18 ^(e)	na	40
Sweden	<1	26	97	143	39	305
Switzerland	<1	6	90	48	19	165
Turkey	na	na	na	2	24	na
United Kingdom	21	51	53	97	32	257
United States	82	36	23	125	73	340

(a) Includes scheme debit

(b) Includes charge cards

(c) Includes e-money and 'other' transactions

(d) Includes BPAY

(e) Split between debit and credit cards not available

(f) Figures for Japan are for 2008

Sources: ABS; BIS; RBA

Other Retail Payments Developments

Interchange fees

The Reserve Bank regulates interchange fees in the MasterCard and Visa credit card systems, and the Visa and eftpos debit card systems in Australia.⁶ Under standards imposed by the Reserve Bank, the weighted-average multilateral interchange fee in each system must be at or below a specified benchmark for each system on specified compliance dates – 1 November of every third year after 2006 and the date that any interchange fee is introduced, varied or removed. The benchmarks were unchanged in 2010/11, at 0.50 per cent of the value of credit card transactions and 12 cents per transaction for scheme debit cards, paid by the transaction acquirer to the card issuer. Although there was no change to the Standards, for the first time the same benchmark will apply to both the eftpos system and the Visa debit card system after a new multilateral fee schedule was announced for the eftpos system (see below). There was also no change to the regulated range for bilaterally negotiated eftpos interchange fees, which are required to be between 4 and 5 cents per transaction (paid by the issuer to the acquirer), excluding transactions with a cash-out component.⁷

The approach adopted by the Reserve Bank allows the schemes significant flexibility to set fees for different interchange categories, provided that the weighted average meets the benchmark. MasterCard and Visa have established a number of interchange fee categories based on factors such as the type of account (e.g. consumer or commercial), the type of card (e.g. standard or premium), the type of merchant (e.g. government, charity or service station) and the type of transaction (e.g. chip, non-chip or contactless) (Table 6). Both schemes left these interchange categories and the fees applying to them unchanged in 2010/11, following the previous round of modifications on 30 June 2010.

eftpos Payments Australia Limited (ePAL) – the body established in 2009 to govern the eftpos scheme – announced a multilateral interchange fee schedule in March 2011, to take effect from October 2011. The schedule will reverse the direction of existing bilaterally negotiated interchange fees for the bulk of eftpos transactions. Both the issuer and the acquirer must have opted-in to the schedule by mid August 2011 before the new fees will take effect; members who chose not to opt-in will remain on their bilateral agreements until they expire or are terminated.

The new multilateral interchange arrangements are:

- *Purchases \$15 and above without cash-out:* 5 cents is paid by the acquirer to the issuer. This reverses the current flow of interchange fees for most transactions. ePAL suggests this will encourage investment in eftpos enhancements, such as mobile and online payments.
- *Purchases below \$15 without cash-out, charity payments and Medicare Easyclaim:* no interchange fee is paid. ePAL intends for this to provide an incentive for merchants to accept small payments on eftpos.
- *Purchases with cash-out and cash-out-only transactions:* 15 cents is paid by the issuer to the acquirer – the opposite direction to purchase transactions. Current bilateral interchange fees on cash-outs are around 20 cents, also paid to the acquirer. ePAL suggests this will retain the incentive for merchants to support cash-out transactions.

⁶ For debit cards, MasterCard has undertaken to voluntarily comply with the interchange fee benchmark in the Visa Debit Standard. All interchange fees quoted in this section exclude GST.

⁷ Multilateral interchange fees in the eftpos system are required to be at or below 12 cents per transaction paid to the issuer, while bilaterally negotiated eftpos interchange fees must be between 4 and 5 cents paid to the acquirer.

Table 6: Interchange Fees
As at 30 June 2011, excluding GST

	Credit card Per cent unless otherwise specified		Debit card Cents unless otherwise specified	
	MasterCard	Visa	MasterCard	Visa
Consumer electronic	0.35	0.40	6.0	8.0
Consumer standard	0.40 ^(a)	0.45	19.0	0.30%
Consumer chip	0.35	–	12.0	–
Premium/platinum	1.00 ^(b)	1.00	0.50%	0.40%
Premium chip	1.00	–	–	–
Super premium	1.60 ^(c)	1.70	–	–
Commercial	1.27	1.28	1.27%	1.00%
Commercial chip	1.27	–	1.48%	–
Strategic merchant	0.25 or 0.34	0.25 to 0.35	3.6	4.0 to 60.0
Government/utility	0.30	0.30	7.0	8.0
Charity	0.00	0.00	0.00%	0.00%
Petrol/service station	0.34	0.32	4.0	6.0
Education	0.30	0.40	–	8.0
Supermarket	–	0.32	–	6.0
Insurance	–	0.40	–	8.0
Transit	–	0.30	–	6.0
Recurring payment	0.30	0.30	9.1	8.0
Quick Payment Service	0.40	–	4.0	–
Contactless payment	0.35	–	–	–
Micropayment	–	–	4.0	–
Large ticket ^(d)	–	\$20 + 0.20%	–	\$10 + 0.10%
Benchmark	0.50	0.50	12.0	12.0

(a) May be 0.30% or 0.35% depending on use of MasterCard's SecureCode online authentication system

(b) May be 0.90% or 0.95% depending on use of MasterCard's SecureCode online authentication system

(c) May be 1.50% or 1.55% depending on use of MasterCard's SecureCode online authentication system

(d) Transactions above \$10 000 excluding travel/entertainment purchases

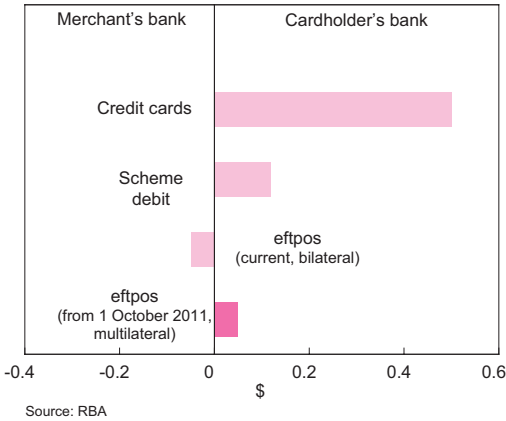
Sources: MasterCard website; RBA; Visa website

These interchange fees remain lower than those for scheme debit and credit cards for the majority of transactions. For a \$100 purchase, for instance, the new eftpos interchange fee will be 5 cents, compared with around 12 cents for scheme debit cards and 50 cents for credit cards on average (Graph 8).

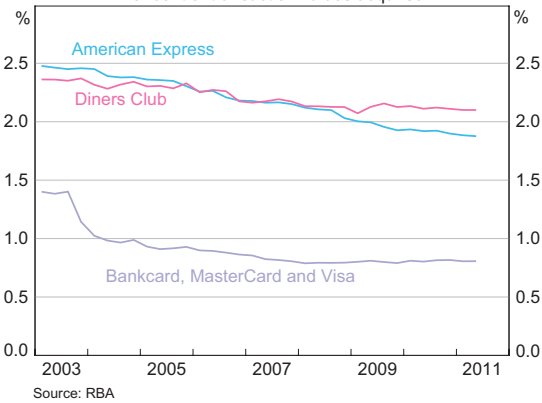
Merchant service fees

The average fee paid by merchants to acquirers for accepting MasterCard and Visa credit card transactions was little changed in 2010/11, at 0.81 per cent of the value of transactions (Graph 9). Indeed, the average merchant service fee, measured on a quarterly basis, has stayed within a narrow band of 0.79 to 0.82 per cent of

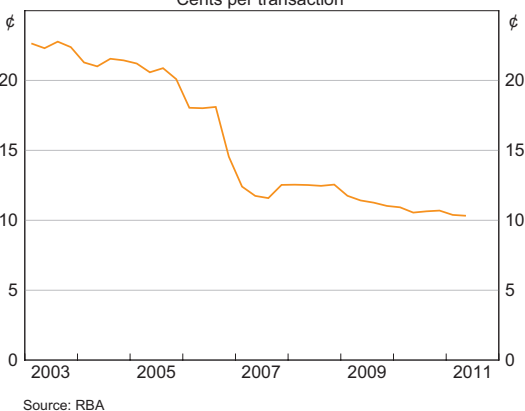
Graph 8
Interchange Fees on a \$100 Payment
 Excluding GST



Graph 9
Merchant Service Fees
 Per cent of transaction values acquired



Graph 10
eftpos Merchant Service Fee Margin Over Interchange Fee
 Cents per transaction



the value of these transactions for the past four years. The margin between the average merchant service fee and the interchange fee cap on MasterCard and Visa credit card transactions has remained stable at around 30 basis points over the same period, which is significantly narrower than the margin of 45 basis points in the September quarter of 2003 (just prior to the Board's reforms). This period of stability followed large falls in the average fee paid by merchants in the first few years following the Reserve Bank's reforms, which reflected an increase in competition between acquirers for the business of merchants.

The average fee paid by merchants for accepting American Express and Diners Club transactions declined slightly in 2010/11. The average merchant service fee for American Express declined by 4 basis points, to 1.90 per cent of the value of transactions; in 2009/10 it declined by 10 basis points. The average Diners Club fee declined by 2 basis points in 2010/11 and has changed little over the past two years.

In the eftpos system, the average merchant service fee continued its gradual decline, falling by 0.4 cents to 6.0 cents per transaction. Mirroring the credit card system, the decline in average merchant service fees in the eftpos system has been driven by increased competition among acquirers. In 2010/11, the margin between interchange fees and average merchant service fees narrowed slightly to 11 cents per transaction (Graph 10).

Pricing and product offerings to cardholders

Card issuers offer a range of card products, each providing a different mix of fees and benefits to the consumer. There are currently six main types of offering. These can be broadly grouped into cards that offer no rewards (including 'low-rate' and 'low-fee' cards) and cards with rewards programs (standard, gold, platinum and 'super premium') (Table 7). Low-rate cards are typically attractive to those cardholders who carry outstanding balances accruing interest from month to month ('revolvers'), as the average interest rate on these cards is around 6 percentage points lower than the interest rate on standard cards. Low-fee cards, on the other hand, are

Table 7: Typical Features of Personal Credit Cards, by Type^(a)
As at end June 2011

	Average annual fee	Average interest rate	Average spending for \$100 voucher ^(b)	Average rewards benefit	Range of rewards benefit
	\$	Purchases, per cent per annum	\$	Per cent of spending	Per cent of spending
No rewards					
Low rate	75	13.1	–	–	–
Standard ('low fee')	24	19.4	–	–	–
Rewards					
Standard	63	19.9	15 800	0.63	0.16–1.00
Gold	138	20.3	15 000	0.66	0.16–0.93
Platinum	252	20.3	10 800	0.93	0.58–1.23
Super premium ^(c)	563	20.7	8 100	1.24	1.16, 1.31

(a) The total sample comprises over 80 credit card products offered by 12 issuers; reported averages are calculated as simple averages of relevant products' features

(b) The value of spending required to obtain a \$100 voucher assumes cardholders with a credit card product containing a companion American Express card spend equal amounts on their MasterCard/Visa card and companion American Express card; figures do not factor in the ability to earn bonus points at certain merchants, caps on earning points or reduced point accrual rates for spending above certain thresholds

(c) There are two super-premium card products: the Citibank 'Select' card with an annual fee of \$900; and the CBA 'Diamond' card with an annual fee of \$425

Sources: credit card issuers' websites as at 30 June 2011

more typically held by cardholders who pay off their credit card in full each month ('transactors') and do not desire additional benefits or rewards programs. Those transactors who use their cards more regularly may be attracted to standard, gold, platinum or super-premium rewards cards.

Average annual fees charged to customers have not changed substantially from a year ago for most card products. Platinum cards are the exception, with fees falling from \$299 to \$252 on average. As discussed below, this appears to be related to increased promotion of premium products to customers.

The higher annual fees (and higher interchange rates) on platinum and super-premium cards are associated with more generous rewards programs than standard or gold cards. The average expenditure required to earn a \$100 shopping voucher is around \$15 800 on a standard rewards card, representing an average rewards benefit of 63 cents for every \$100 spent. By contrast, a platinum cardholder is required to spend, on average, around \$10 800 to obtain the same benefit and a super-premium credit cardholder around \$8 100, representing average rewards benefits of 93 cents and 124 cents, respectively, for every \$100 spent; however, there is considerable variation in the range of rewards and benefits across cards.

Overall, there is evidence to suggest that rewards programs have become less valuable. In the year to June 2011, the average rewards benefit to cardholders fell by 4 cents for every \$100 spent on standard cards, 5 cents on gold cards and 1 cent on platinum cards. This is in line with longer-term trends observed since the credit card reforms in 2003, in which average rewards benefits to cardholders have consistently declined.

In addition to the pricing faced by cardholders, some of these product types – notably platinum and super-premium cards – attract significantly higher interchange revenue per transaction for issuers. There is evidence to suggest that, over 2010/11, issuers have been seeking to alter their card portfolios to take advantage of these differentials. The clearest example has been banks reissuing standard or gold cards as platinum cards, either automatically or via an option for cardholders to consider. For a typical transaction, this implies an increase in interchange revenue for the issuer of around 0.6 per cent of the transaction value. Such ‘upgraded’ cardholders typically retain the same annual fees and reward structure of the original card, but have access to a range of ‘premium’ benefits not previously available to them (e.g. travel insurance and extended warranties). In a similar vein, new lower-fee platinum cards that are co-branded with some merchants do not have premium benefits, but offer more generous rewards programs and lower annual fees than traditional platinum products.

Overall, there has been a noticeable increase in the number of bank- and merchant-branded platinum credit card products available, many of which are priced to be more attractive to cardholders than previous offerings. This has led to an increased blurring of the distinction between gold and platinum cards. At the same time, the new super-premium category appears to be taking on the position previously occupied by platinum cards before they became more widespread. Super-premium cards, currently offered by only a small number of issuers, are characterised by having much higher annual fees than other credit cards but also more generous rewards programs and access to additional premium benefits. For example, the average annual fee for super-premium cards, at \$563, is more than twice that of platinum cards.

The pricing arrangements for debit cards and deposit accounts to cardholders have remained largely unchanged over the past few years. Debit cardholders are typically charged an account-keeping fee of around \$3 to \$4 per month, which entitles them to an unlimited number of free electronic transactions, including eftpos, own-ATM and internet/telephone banking transactions. Some of these accounts also include unlimited cheque and branch transactions.

There is some variation across institutions in account offerings. Some institutions offer deposit accounts that have higher monthly account keeping fees but allow account holders to access benefits, including discounts at some retailers and complimentary insurance. Other institutions may charge a lower monthly fee but limit the number of fee-free transactions, while other institutions offer an unlimited number of transactions for a zero monthly fee. A number of institutions will also waive the monthly account keeping fee if the account holder maintains a balance above a certain threshold or makes sufficient deposits each month.

Fraud

Fraud rates in Australia remain below international levels, although they have risen in recent years. Total payments fraud – which includes fraud on cheques; scheme credit, scheme debit and charge cards; and proprietary debit cards – rose to 10.6 cents per \$1 000 of payments in the year to December 2010, up from 9.1 cents in the preceding year (Table 8). The weighted-average fraud rate on payment cards rose 7 per cent to 35.6 cents.

Scheme credit, scheme debit and charge card fraud accounts for around 80 per cent of the total value of payments fraud. After declining slightly in 2009, the rate of fraud on these cards increased by 9 per cent in 2010, from 57.5 cents to 62.8 cents per \$1 000 transacted (Graph 11). At the same time, the rate of fraud on proprietary debit cards fell from 9.4 cents to 7.9 cents per \$1 000 transacted after rising sharply in the previous year, while cheque fraud increased to 1.3 cents per \$1 000 transacted.

Table 8: Fraud on Australian-issued Payment Instruments
Cents per \$1 000 transacted

	2009	2010
All instruments	9.1	10.6
All cards	33.3	35.6
Scheme credit, scheme debit and charge card	57.5	62.8
Proprietary debit card	9.4	7.9
Cheque	0.8	1.3

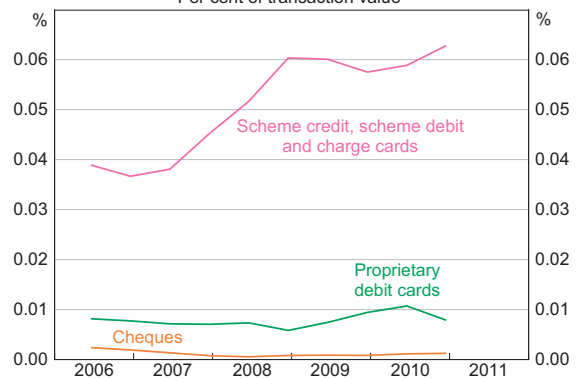
Source: Australian Payments Clearing Association

One of the main drivers of rising payments fraud rates in recent years has been card-not-present (CNP) fraud committed on scheme credit, scheme debit and charge cards. CNP fraud typically involves the theft of genuine card details, which are then used to make a fraudulent purchase over the internet, by phone, or by mail order. This type of fraud has grown substantially, rising from \$32 million in 2006 to \$123 million in 2010 for Australian-issued cards. CNP fraud now accounts for over 70 per cent of all scheme credit, scheme debit and charge card fraud on Australian-issued cards. Nearly two-thirds of this fraud was perpetrated overseas, reflecting the increasingly borderless nature of payments fraud (Graph 12).

Efforts to control rising CNP fraud have been undertaken by the card schemes at both the merchant and cardholder level. For online merchants, secure data storage is a prominent concern, as there have been a number of high-profile cases, both in Australia and overseas, where card details have been stolen from databases. In response to the risks of insecure data storage, the card schemes developed the Payment Card Industry Data Security Standard (PCI DSS) in 2004. The PCI DSS set data storage security standards to be met by any party that collects or stores data. If a merchant is found to be non-compliant, the schemes can impose a fine on that merchant's acquirer, which can then pass the fine onto the merchant. Any merchant that is not PCI DSS compliant can potentially be prevented from processing card payments.

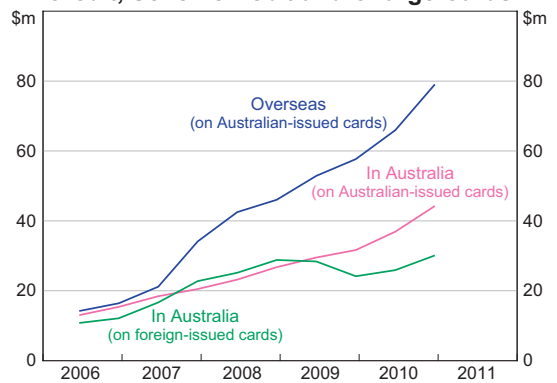
Another initiative of the card schemes at the cardholder level has been the introduction of online authentication services: Visa offers 'Verified by Visa' and MasterCard offers 'SecureCode'. Both systems add an extra level of security to a typical online transaction by asking registered cardholders

Graph 11
Fraud Rates on Australian Payments
Per cent of transaction value*



* Series break in December 2008 due to a change in reporting methodology
Source: APCA

Graph 12
Card-not-present Fraud on Scheme Credit, Scheme Debit and Charge Cards



Source: APCA

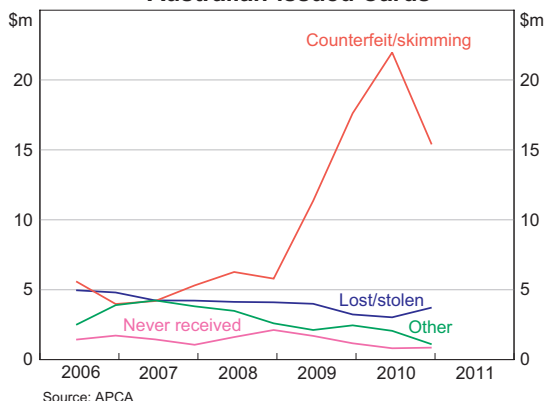
to provide a personal identification number (PIN). Use of these systems is likely to increase in Australia over the next few years, with Visa and MasterCard mandating that online merchants provide each system for cardholders by April 2012 and April 2013, respectively.⁸

In countries where CNP fraud has been a significant problem, the combined effect of merchant and cardholder strategies to control rising fraud rates has had some success. In the United Kingdom, for example, CNP fraud has declined by nearly one-third since 2008. The Financial Fraud Action UK group has attributed this decline to the increasing use of sophisticated fraud detection tools by merchants and banks, the use of online authentication services and consumer awareness campaigns. Successes overseas may have, in part, contributed to increased incidence of fraud in Australia.

Apart from CNP fraud, the other major component of payments fraud is counterfeit or skimming fraud. This type of fraud involves the theft of card details from the magnetic stripe of a genuine card, which is then used to create a fake card. As mentioned in the 2010 Annual Report, one response to these rising fraud rates has been the introduction of chip-based cards and terminals, and PIN authorisation at the point of sale (POS). These measures may be starting to have positive results. Since 2008, skimming fraud on Australian-issued scheme credit, scheme debit and charge cards has fallen around 36 per cent, from \$50 million to \$32 million. Over the same period, the value of skimming fraud on foreign-issued credit cards used in Australia has declined by almost two-thirds, from \$78 million to \$28 million.

Skimming fraud on proprietary debit cards also declined over the past year, after increasing rapidly over 2009 following a number of well-publicised skimming attacks at some ATMs and POS terminals. Skimming fraud on proprietary debit cards rose from around \$6 million at the end of 2008 to as high as \$22 million over the year to June 2010, but has since fallen back slightly to \$15 million (Graph 13). Enhanced security around ATMs and POS terminals and greater merchant and consumer awareness may have contributed to this decline. The industry is continuing to develop ways of preventing skimming fraud and raising consumer and merchant awareness, such as through Australian Payments Clearing Association’s (APCA) ‘Protect Your PIN’ and ‘Safeguard Against Skimming’ campaigns.

Graph 13
Proprietary Debit Card Fraud on Australian-issued Cards



Operational outages in retail systems

A number of difficulties affected payments processing at some of the major banks during 2010/11. In late November 2010, National Australia Bank (NAB) experienced operational difficulties originating in its overnight processing of direct entry payments. Efforts to catch up on processing caused further problems. This was followed by another, unrelated, problem with direct entry payments in April 2011 at NAB. In March, the Commonwealth Bank experienced problems with its internet banking site, as well as its POS and ATM services, and in early May an operational difficulty at a data centre caused Westpac’s eftpos, internet banking and ATM services

⁸ Visa is requiring all Visa cards be enrolled in the ‘Verified by Visa’ program by April 2012, while MasterCard is requiring online merchants to be able to provide ‘SecureCode’ or the equivalent for transactions over \$200 by April 2013.

to shut down for a morning. The floods in Queensland in January also had a substantial effect on payments service providers in that state.

In all cases, the Reserve Bank was aware of and monitored the incidents closely, including via frequent communication with the affected institutions and industry bodies as appropriate. In light of these and other incidents, the Reserve Bank and the Australian Prudential Regulation Authority are discussing possible approaches to strengthen the handling of any future operational disruptions to retail payments systems.

Regulatory Developments in Retail Payments

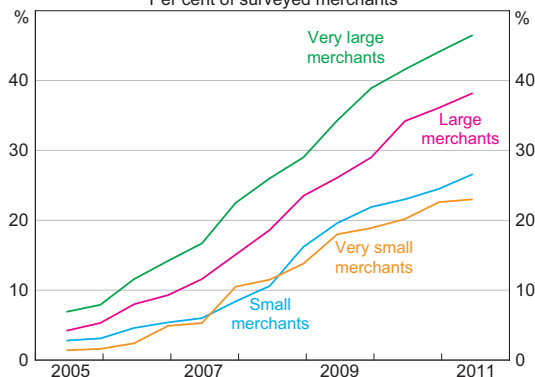
Regulatory developments included the Payments System Board's decision to consult on whether to allow scheme rules to impose caps on surcharges and consideration of competition issues related to multi-function cards. The Reserve Bank was also part of a joint taskforce that examined transparency and competition in the ATM market, as well as concerns related to the high level of expenditure on ATM fees by residents of very remote Indigenous communities.

Surcharging

The proportion of merchants that surcharge credit card payments has risen substantially since the Payments System Board required the removal of 'no-surcharge' rules by some card schemes and obtained voluntary undertakings to the same effect from other schemes. The most readily available data, from East & Partners' semi-annual survey of the merchant acquiring market, suggest that 30 per cent of merchants applied a surcharge on at least one of the credit cards they accepted at the end of June 2011 (Graph 14).⁹ According to these data, surcharging continues to be more common among very large merchants (those with annual turnover of over \$530 million), with 47 per cent applying a surcharge according to this data source.

The removal of no-surcharge rules has allowed merchants to pass on the cost of credit card and scheme debit card transactions, resulting in improvements in price signals to cardholders. The Reserve Bank's 2010 Consumer Payments Use Study (see discussion in 'Strategic Review of Innovation') indicates that around half of consumers who hold a credit card will seek to avoid paying a surcharge by either using a different payment method that does not attract a surcharge (debit card or cash) or going to another store. The results also indicate that consumers respond to differential surcharging: when faced with a surcharge that is higher on one type of credit card than another, only around 10 per cent of consumers indicated that they would complete the transaction with the card attracting the higher surcharge, while around 40 per cent indicated they would complete the transaction with the card attracting the lower surcharge.

Graph 14
Merchants Surcharging Credit Cards
Per cent of surveyed merchants



Source: East & Partners Merchant Acquiring & Cards Market program (June 2011)

⁹ The Reserve Bank had planned to undertake a survey of merchant surcharging practices in 2010 for which it intended to publish the results. Unfortunately, after several pilot studies, in early 2011 it became clear that the Reserve Bank would not obtain sufficient responses from merchants for a meaningful sample.

At its May 2011 meeting, the Board decided to enter into consultation on possible changes to the Standards relating to surcharging, and the Reserve Bank issued a consultation paper in June 2011.¹⁰ The catalysts for the review were two types of surcharging practices that might be reducing the effectiveness of the previous reforms:

- *Excessive surcharging:* In some cases merchants may be setting surcharges well in excess of the cost of card acceptance. There is evidence that this may be concentrated in some industries and payment channels, and that these tend to be segments where a larger proportion of transactions are surcharged (for example, online payments). A related concern is a lack of genuine payment alternatives where credit card surcharges are levied on online payments.
- *Blended surcharging:* There appears to have been some increase in the incidence of blended surcharging, where cards from different schemes are surcharged at the same rate despite significant differences in acceptance costs. While some merchants might prefer a simple pricing structure, the Board is concerned that encouragement of blended surcharges might act to blunt price signals.

The consultation paper considers several potential modifications to the Standards. These include:

- Allowing scheme rules to impose caps on surcharges. There are two alternative approaches to this: the Board could determine a specific permissible cap that schemes may choose to impose, or scheme rules may limit surcharges to an amount that is either reasonably related, or equal, to the merchant's cost of card acceptance. One possible measure of the cost of acceptance is the merchant service fee.
- Providing clarification on the ability of merchants to surcharge differentially across card types. In conjunction with a surcharging cap, the Standards would need to be modified to ensure scheme rules could not prohibit merchants from applying a surcharge that is either the cost of accepting each card within a card scheme or a blended rate for each card scheme. To enable merchants to surcharge differentially, the Board has also suggested modifying the Standards to require acquirers to pass on information about a merchant's cost of acceptance for each different card type, or a weighted-average merchant service fee, if requested by the merchant.

The Board also noted a possible case to promote disclosure of merchant service fees, either by merchants themselves or by the Reserve Bank (which could collect and publish more detailed data on merchant service fees). This would provide consumers with more information about the cost of card acceptance, against which the reasonableness of any surcharge could be assessed.

The Reserve Bank received 50 submissions and, at the time of writing, is reviewing these and considering the possible policy options.

Multi-function Cards

During the course of 2010/11, the Board reiterated its desire for the ongoing issuance of multi-function cards. These are cards carrying an international scheme's Bank Identification Number that can also be used to initiate eftpos and ATM transactions. Such cards allow for stronger competition between payments systems at the point of sale and are convenient for cardholders.

The Board is concerned about scheme rules that require commercially sensitive data on one payment system to be provided to the operator of an alternative system, and the imposition of 'brand fees' by one payment system on a competitor's transactions. If these arrangements were to persist, the desire of schemes to

¹⁰ See RBA (2011), *Review of Card Surcharging: A Consultation Document*, June. Available at <<http://www.rba.gov.au/publications/consultations/201106-review-card-surcharging/pdf/201106-review-card-surcharging.pdf>>.

keep proprietary data from their competitors may force schemes not to support multi-function cards. The reporting burden on financial institutions may also reduce the attractiveness of issuing multi-function cards. Moreover, the existence of brand fees could place some control of pricing at the hands of a competitor as well as generate revenue for the competitor. This has the potential to distort competition among different card payment systems.

In early 2011, the Reserve Bank issued a media release encouraging relevant industry parties to seek agreement on the terms under which multi-function cards are issued. The Board's preferred course is a negotiated outcome that is acceptable to all sides *and* is in the general public interest. Although there are ongoing industry negotiations on the terms under which multi-function cards are issued, the Board will consider consulting on a suitable regulatory response if a satisfactory solution is not reached by the industry in a timely fashion.

ATM Taskforce

In December 2010, the Australian Government announced a reform package designed to promote the competitiveness and sustainability of the Australian banking system.¹¹ The package included the creation of a joint RBA–Treasury ATM taskforce, which was asked to submit two reports to the Government during 2011:

- a report on the impact of the March 2009 ATM reforms, including recommendations on the need for further measures to enhance transparency and competition; and
- a report on issues affecting Indigenous and other remote communities in relation to ATMs, including appropriate actions for dealing with these issues.¹²

The taskforce was asked to consider the impact of the reforms on the transparency and level of ATM fees, consumer behaviour, competition in the ATM market and the deployment of ATMs. For the report on Indigenous and other remote communities, the taskforce was asked to examine, in relation to these communities, the provision of ATM services, the fees for ATM services, the impact of these fees on residents, and alternatives to current arrangements and practices for accessing cash and account balance information.

In examining these issues, the taskforce analysed data from a range of sources and consulted with financial institutions, independent ATM owners, a number of industry and consumer representatives, non-government organisations and government agencies. In addition, representatives from the taskforce visited several remote Indigenous communities in central Australia. As requested, the taskforce submitted its report on Indigenous and other remote communities to the Government in February 2011, and its report on transparency and competition in June 2011. The taskforce is continuing to work with industry to help reduce the expenditure on foreign-ATM fees by residents of remote Indigenous communities.

Bank Account Portability

The switching of a customer's banking business from one institution to another can be complicated by the need for direct debits (e.g. standing bill payments) and direct credits (e.g. salary or welfare payments) to be redirected to the customer's new account. To make the process easier, the industry introduced a 'listing and switching' service in 2008. This service provides customers information on how to redirect payments, and allows them to request a list of direct debit and credit payments over the previous 13 months from their 'old'

11 Commonwealth of Australia (2010), *Competitive and Sustainable Banking System*. Available at <http://www.treasury.gov.au/banking/content/_downloads/competitive_and_sustainable_banking.pdf>.

12 The terms of reference are available at <http://www.treasury.gov.au/banking/content/_downloads/ATM_Taskforce_ToR.pdf>. Further detail on the ATM reforms can be found in RBA (2009), *An Access Regime for the ATM System*, February, available at <<http://www.rba.gov.au/payments-system/reforms/atm/access-regime/atm-access-0209.pdf>>.

institution so that they can identify those arrangements that need to be changed. Customers then need to either redirect the arrangement themselves or ask their new institution to assist in the process. To date, take-up of the formal elements of the service has been modest.

In December 2010, the Treasurer appointed Bernie Fraser, a former Reserve Bank Governor, to conduct a feasibility study into a broader range of account-switching options to improve the portability of bank accounts. The study forms part of the Government's *Competitive and Sustainable Banking System* reform plan. The Treasurer asked Mr Fraser to work closely with the Reserve Bank on the study; to this end, the Reserve Bank met with Mr Fraser in the first half of 2011 to discuss some potential options.

Mr Fraser's report was released on 21 August 2011.¹³ It recommended that the existing 'listing and switching' service be enhanced, by granting the customer's new financial institution primary responsibility for the switching process, with the customer being required to sign just one form to authorise the switch of accounts and associated direct debits and credits. The report also recommended that new switching arrangements be in place by 1 July 2012. The Treasurer accepted the report's recommendations in full.

International Developments

As in Australia, foreign regulators have acted in recent years to improve the working of competition in payment card markets. A number of countries have intervened to change the interchange fees set by card schemes and to remove restrictions imposed by card schemes on merchants' ability to pass card acceptance fees on to cardholders in the form of surcharges. Several countries have also acted to ensure that schemes do not restrict merchants' and customers' freedom to choose competing cards and card networks to make payments.

United States

In July 2010, the United States Congress passed the *Dodd–Frank Wall Street Reform and Consumer Protection Act*. Section 1075 of the Act (the Durbin Amendment) instructs the Federal Reserve Board to write regulations to ensure that debit interchange fees are 'reasonable and proportional' to the issuer's cost of the individual transaction, and to limit networks' exclusivity arrangements and routing restrictions. The Federal Reserve has released its final regulation on debit interchange fees. Effective from 1 October:

- debit card interchange fees will be capped at 21 cents plus 0.05 per cent of the transaction value; and
- up to 1 cent extra interchange fee may be received if the issuer meets standards to develop, implement, and update policies and procedures to limit fraud, although this is still under consultation.

Exemptions from the interchange provisions will apply to issuers with assets under US\$10 billion, three-party networks, transactions made using cards issued under government-administered programs, and certain reloadable prepaid cards.

The Federal Reserve has also introduced exclusivity provisions that require issuers and networks to have at least two non-affiliated networks enabled on a debit card. In addition, networks must not limit an issuer's ability to contract with non-affiliated networks (e.g. rules that prohibit the logo of an enabled non-affiliated network from appearing on a debit card). Merchants must also not be restricted from routing a transaction over any of the networks enabled on a debit card or from promoting the use of a particular network. This is effective from 1 October 2011 for networks and from 1 April 2012 for issuers.

¹³ The report *Banking Services – Switching Arrangements* is available at <<http://www.bankingreforms.gov.au/content/Content.aspx?doc=reports.htm>>.

The United States Department of Justice (DOJ) and seven states filed a lawsuit in October 2010 against Visa, MasterCard and American Express regarding their merchant restrictions. The DOJ reached a settlement with Visa and MasterCard, which was approved by the Federal Court in mid July. Under the settlement, MasterCard and Visa must allow their merchants to influence consumers to use a particular credit card network, type of card within that network, or other forms of payment, by:

- offering consumers an immediate discount or rebate or a free or discounted product or service;
- expressing a preference for a particular card;
- posting information or other communications to consumers; and
- communicating to consumers the cost incurred by the merchant.

American Express is still contesting the lawsuit.

Europe

In December 2010, the European Commission officially dropped its case against Visa Europe's multilateral interchange fees (MIFs) for immediate debit transactions.¹⁴ Visa Europe committed to lowering its weighted-average immediate debit MIFs to 20 basis points for cross-border transactions and national transactions in EU states where domestic interchange rates have not been set among local Visa participants. Visa Europe has also committed to maintaining the improvements to transparency that it approved in 2009.¹⁵ These commitments are in line with the 2009 agreement between the European Commission and MasterCard. Visa Europe's credit card MIFs and the honour-all-cards rule remain under investigation.

In July, Groupement des Cartes Bancaires, France's national interbank network, agreed to reduce its interbank (interchange) fees for domestic debit card and ATM transactions following an investigation by the French competition authority; interchange fees will be 28 basis points (on a weighted-average basis) and €0.57, respectively, from 1 October, a reduction of 36 per cent and 21 per cent. In September 2010, 11 banks were fined for fixing of interchange fees for cheques.

Germany initiated direct charging for foreign ATM withdrawals in mid January 2011 to replace payment of interchange fees. The change came following pressure from the Government and general public over perceived excessive foreign fees; in some instances these were as high as €10 per transaction. Data collected by a consumer advocacy group, Biallo, suggest that fees are on average €1.70 lower since the changes took effect.

Canada and the United Kingdom – surcharging

In December 2010, Canada's Competition Bureau made an application to the Competition Tribunal regarding Visa and MasterCard under the price maintenance provisions of the *Competition Act 1985*. The Bureau is seeking the removal of scheme rules deemed as 'merchant restraints'. While some of these restrictions were lifted following the adoption of a Voluntary Code of Conduct for credit and debit card networks in April 2010, a successful application to the Competition Tribunal will allow merchants to surcharge (argued by the Bureau to be more effective than discounting) and discriminate by card type (e.g. standard versus premium).

¹⁴ An immediate debit transaction is one where the funds are debited from the customer's account at the time of sale. A delayed debit transaction is one where funds are debited from the customer's account at a later date.

¹⁵ These include: providing unblended merchant service fees; publishing MIFs; separate honour-all-cards rules for each of Visa's brands of immediate debit (Visa, V-Pay and Electron); unbundling of acquirers; and the physical and digital identification of commercial cards.

The UK Office of Fair Trading (OFT) has been investigating the surcharging practices of merchants, following a complaint by 'Which?', a UK consumer advocacy group. The complaint focused on the transparency of surcharging, especially in situations where there is no practicable alternative (such as internet transactions), and excessive surcharging. Which? singled out the passenger transport and tourism industries.

As a result of its investigation, the OFT has recommended that:

- the Government introduce measures to prohibit surcharging on debit cards; and
- merchants in the travel industry improve transparency of surcharges as required by consumer protection laws.

Strategic Review of Innovation

Consultation and Review Process

In May 2010, the Board announced that it would undertake a strategic review of innovation in the payments system. The review, which has a medium-term perspective, is looking at trends and developments in overseas payment systems and potential gaps in the Australian retail payments system that might be addressed through innovation.

Following a call for submissions in July 2010, an initial round of informal consultations took place. These preliminary discussions suggested that while innovation in the Australian payments system is occurring in some areas, deficiencies remain in other areas. For example, new online systems have begun to emerge, EMV chip technology is being implemented and contactless technology is being deployed. On the other hand, the demand for the transmission of additional data with payments or for real-time (or near real-time) transfers is yet to be fully addressed.

In June 2011, the paper *Strategic Review of Innovation in the Payments System: Issues for Consultation* was released. This consultation paper draws on the initial discussions with interested parties, as well as the second study on the use of payment methods by consumers, and work the Reserve Bank has been involved in with other central banks to assess innovation in other countries. The consultation paper highlights issues to be examined more closely in the coming months through a process of formal consultation. The Board intends to finalise its conclusions around the end of 2011 or early 2012.

Attributes of an Efficient System

The consultation paper outlines some of the characteristics that are considered desirable in an efficient payments system. The Australian retail payments system appears to be deficient in respect of some of these characteristics.

Two important attributes of an efficient system are accessibility and ease of use. Clearly it is desirable that those who need to make and receive payments should have ready access to the payments system. Equally, systems that are easier to use are preferable to those that are more cumbersome. A key element of the ease of use is the process of providing details of the accounts to be debited and credited when the payment is made. For instance, systems that require manual entry of account and transaction details are prone to errors, which can be costly to correct and discourage use. The need to know a recipient's account details can further deter use of such systems. While the issues of correctly addressing bill payments have been dealt with through the BPAY system, there is no similar system currently available for individual payments across financial institutions.

Timeliness of payments is also considered important. While not all payments are time-critical, users of the payments system should have options available that give recipients timely access to their funds and allow

timely confirmation to both the sender and the receiver. Further, when payments are time critical (for example, government emergency payments) availability of funds the next day – as occurs for many of Australia’s main retail payment systems – might not be sufficient. In recent times, many such payments have been made using the real-time gross settlement (RTGS) system (intended for high-value payments) because there has been no suitable alternative.

Typically payments are made as part of a process that requires reconciliation and recording of information associated with the payment by the parties involved. It is desirable that payment systems should be able to integrate efficiently with these processes. A key factor enabling them to do so is the capacity of payment systems to carry additional reconciliation information with the payment; however, the difficulty in doing so was an important theme from the Reserve Bank’s initial consultation.

An efficient payments system would be expected to deliver these and other characteristics in a cost-effective manner. Ideally costs will be transparent, so that choices between payment systems can be well informed.

Traditionally, some of the attributes mentioned above have been delivered by cheques. For the user, cheques are cheap, accessible, easy to use and capable of facilitating an instant face-to-face exchange of value. The person paying by cheque does not need to know the recipient’s bank account details, just the recipient’s name and in some cases address. Additional information can readily be written on the back of the cheque or attached to the cheque.

However, over time, cheques are becoming an increasingly expensive form of payment. The number of cheques written in Australia has been declining by an average of 9 per cent per year over the past decade. As the number of cheques declines, the cost per cheque increases. While moving from paper-based to electronic-based payments offers efficiency gains, moving away from cheques may be dependent on the industry’s capacity to develop suitable electronic alternatives. The review seeks the views on the decline of cheques to assist the Board in forming its own views, and to test the public benefit of any possible solutions. The Australian Payments Clearing Association (APCA) also undertook a separate consultation on the future of cheques following the release of its consultation paper in June 2011 and it intends to release a proposal paper presenting recommendations for the future development of the payments system in the December quarter 2011.

In addition to the above attributes, end users of a payment system must also have confidence that the system will be available when needed and that payments will reach the intended recipient at the time promised. They need to be confident that the system is secure, so that using it will not expose them to future losses as a result of information being fraudulently obtained.

One way to promote reliability, safety and efficiency is to use standards. A well-designed system will utilise appropriate standards to promote interoperability and security, but will not set unnecessary hurdles. Standards themselves cut across many areas of payments, including messaging, device and security standards. The increasingly global nature of commerce suggests that adoption of internationally compatible standards will be very important for maintaining a world-class payments system. The review seeks views on what standards should apply within the Australian context and how compliance with those standards ought to be implemented and monitored.

Collaboration, Governance and Connectivity

Some innovations can be described as proprietary, meaning they occur largely at the discretion of a single commercial entity. The decision to proceed with this type of innovation is typically based on the benefit to the innovator and its customers. Where decisions in relation to an innovation are in the hands of a single entity, and there is a demand for that innovation from end-users, its provision will be a matter of the provider assessing the potential returns given expectations regarding demand. In the absence of market failures, the innovation will most likely proceed if it is expected to generate a net profit. The scope of proprietary innovation can, however, be relatively limited. For instance, while a bank may implement a proprietary mobile payment system to service its own customers independently, extending that system to provide the same level of service for payments to and from another bank's customers requires co-operation.

System-wide innovations tend to require at least some degree of co-operation between competitors to take place. However, the benefits of this type of innovation typically accrue to users of the system as a whole and there may be little incentive for individual institutions to invest or innovate in something that offers them little competitive advantage.

In Australia, significant co-operative innovations have been difficult to achieve, with key stakeholders often unable to reach agreement. Where significant co-operative innovation has occurred, it has often been with the aid of some form of official intervention. Examples range from the creation of the RTGS system in the 1990s, to ATM reforms and implementation of the industry Community of Interest Network (COIN) for the clearing of retail payments between payments system participants. The review asks for feedback as to whether current governance arrangements adequately promote payments system innovation, particularly in the area of co-operative innovation.

The initial consultations have highlighted the perception that some industry players do not have a representative voice in current governance arrangements, largely as a result of the payments clearing focus of APCA structures. For instance, the rules for the ATM system are largely set through the APCA processes, but some of the largest owners of ATMs have no direct input into these decisions.

Similarly, there is a perception that the needs of end-users for new or altered product offerings are not always taken into account sufficiently. There are a number of examples where the needs of the business community and government agencies are not being fully met. Also, although not expressly stated by consumers, there are areas where improved capabilities may provide benefits (such as improved ease of addressing payments, as mentioned above). Even more difficult to accommodate in an industry-based model of governance are the interests of potential entrants to a system. These issues will be further explored through the formal consultation process.

System-wide innovations require not just co-operation, but connectivity between competitors. Payment systems in Australia have traditionally been based on bilateral connections. While the bilateral relationships and architecture that underpin some of Australia's main retail systems have been relatively effective in facilitating the initial establishment of payment systems, such as the ATM and eftpos systems, such systems, once established, have tended to be difficult to access and not conducive to innovation.

The establishment of the industry COIN is resolving some of the complexity of access to payments clearing and settlement in Australia by allowing new entrants to establish just a single physical connection to the network, rather than individual connections to each other participant. Nonetheless, these arrangements maintain bilateral logical and business relationships between participants. The consultation paper asks whether there

may be additional advantages to further centralisation, including the possibility of centralised architecture through which payment messages are directed to the recipient.

The consultation paper noted that the major banks and BPAY had been working for some time on a new, hub-based retail payments system, referred to as MAMBO, which might have been able to address a number of the unmet needs of end-users identified by the Review. More recently, BPAY announced that it would not be proceeding with the MAMBO project. The demise of this project means that the need for solutions to fill the gaps identified by the Review is even more pressing.

Consumer Payments Use Study

The Reserve Bank commissioned Roy Morgan Research to undertake a study of consumer payments (Consumer Payments Use Study) on its behalf in November and December 2010. This was the second study of its kind undertaken by the Reserve Bank; the first was part of the Board's 2007/08 review of the payments system reforms. The 2010 Study provides insight into how payment methods, including cash, are currently being used by consumers, and how their use has changed in the period between the first and second studies. The 2010 Study also provides some insights into consumers' perceptions about different payment methods, which may shed light on the ways in which the Australian payments system can be made more responsive to the needs of its users.

Respondents were asked to record in a diary every payment they made during a week, including the date, amount, payment method, merchant category, channel (in person, phone, internet or mail) and whether a surcharge was paid in the case where a credit card was used. Respondents were also asked to record when and how they withdrew cash and, if an ATM was used, whether a direct charge was paid. At the end of the week, respondents were asked to complete a separate questionnaire that, among other things, asked them about factors that influence payment decisions, their use of newer payment methods and what would make them more likely to make specific types of payments online. These questions were aimed at understanding gaps in current consumer payment options.

In total, 1 240 valid responses were received, including 317 responses from participants who completed both the 2007 and 2010 studies. This resulted in a sample of almost 19 500 payments for a total value of around \$1.3 million. In addition, around 1 800 cash withdrawals were recorded, with a total value of around \$320 000.

Results from the diary suggest two main conclusions on consumer payment patterns. First, the broad patterns of payments behaviour observed in the first study still hold. Cash remains the most widely used payment method in Australia and the dominant method for low-value payments (under \$40). Cards are the dominant payment method for transactions between \$50 and \$500. BPAY, internet/telephone banking and cheques are important payment methods for higher-value payments, particularly those greater than \$500, although cheque use continues to decline overall.

Second, payment patterns have nonetheless evolved in the three years between the first and second studies. Notably, despite its continued wide use, cash as a share of both the number and value of payments by individuals has declined significantly. Debit cards appear to have been substituted for cash, with both eftpos and scheme debit cards now being used for an increasing share of lower-value payments.

The 2010 Study also explicitly captured the use of online payment methods for the first time. Even though only 2 per cent of the number of all payments are made via internet/telephone banking (reflecting the fact that the bulk of consumer payments are made in person), these have a high average transaction size and as a

result account for 9 per cent of the value of consumer payments. Specialised online payments providers, such as Paymate, PayPal and POLi, account for around 1 per cent of both the number and value of transactions.

Despite the small share of total consumer payments, the Study suggests that most consumers are comfortable with online payments and do not believe that there are factors that would lead them to increase their use of these payments. Around 60 per cent of consumers with internet access pay most of their bills online, and around the same proportion have used online banking to transfer money to friends or family. Around 80 per cent have made an online purchase at some stage. Nonetheless, consumers are concerned about the risk of online fraud and indicated that this is a significant deterrent to greater use of online payments. Further, despite some initial consultations for the strategic review of innovation highlighting that current (particularly online) payment methods provide little scope for data of a detailed nature to accompany a payment, this did not stand out as a factor constraining consumers' use of online payments, suggesting that this aspect is more relevant for business than for consumers.

The separate questionnaire asked about consumers' use of newer payment methods, such as contactless and mobile payments. The findings suggest that adoption of contactless payments (where the consumer needs only to hold their card in proximity to the terminal, or tap their card against it) is quite low to date. Around 3 per cent of respondents indicated that they had made a contactless payment in the month prior to the survey. Of those that had, the most common payment value was between \$20 and \$50. This suggests that this technology may currently be replacing some payments that would otherwise have been made as more traditional (e.g. swipe transaction) credit or debit card payments, rather than in place of lower-value cash payments for which it has been marketed.

Finally, around 9 per cent of consumers with a mobile phone have made a mobile payment at some stage, although these payments were mainly to purchase ringtones, games or applications ('apps') for their phone. Most of the remaining use seems to be internet payments made via mobile phone; for example, internet banking (43 per cent of mobile payments users), bill payments (40 per cent) and online purchases (32 per cent).

Oversight of High-value Payment Systems

Reserve Bank Information and Transfer System

Australia's high-value payments system is the Reserve Bank Information and Transfer System (RITS), owned and operated by the Reserve Bank. RITS is a real-time gross settlement (RTGS) system in which most transactions are settled, one by one, in real-time across Exchange Settlement (ES) accounts held at the Reserve Bank. RITS also settles batches of payments.

A key element of the Board's responsibility for the safety and stability of the payments system in Australia is oversight of RITS. An important part of this is for the Board to satisfy itself that RITS meets the Core Principles for Systemically Important Payment Systems (Core Principles) developed by the Committee on Payment and Settlement Systems (CPSS). To this end, the Reserve Bank periodically conducts self-assessments of RITS, which are subject to review by the Board, with any material changes occurring between assessments being reported to the Board. The latest self-assessment was conducted in 2009. The Board is satisfied that RITS meets all of the Core Principles and, more generally, operates in a way that meets international best practice.

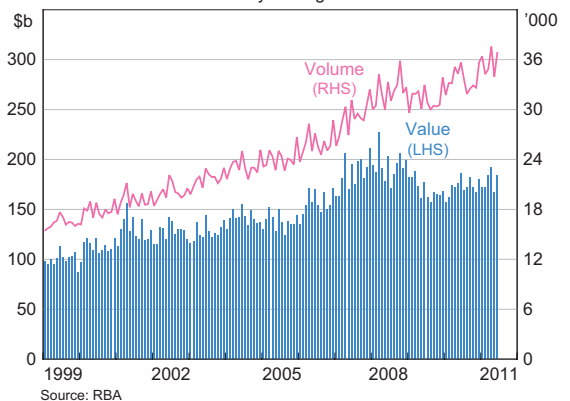
The number of transactions settled on an RTGS basis increased over 2010/11, continuing the trend that was disrupted by the market turbulence in 2008 and 2009 (Graph 15). Daily average transaction values have increased over the past year, but remain below those seen in 2008.

Settlement of payments associated with ASX equity transactions occurs across ES accounts once per day on a net basis. The average daily value of participants' cash settlement obligations in this batch in 2010/11 was \$486 million, down by 4.7 per cent from 2009/10.

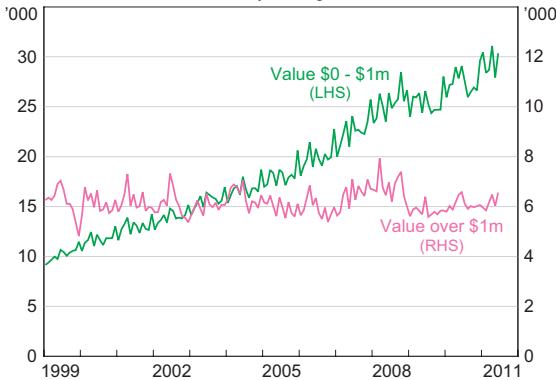
Although specifically designed for the settlement of high-value payments, RITS also settles a significant number of small-to-medium sized payments. In fact, most of the growth in the number of transactions over the past decade has been in payments under \$1 million (Graph 16). As a proportion of total value settled in the system, however, these transactions remain very small.

Liquidity in RITS – as measured by the sum of opening ES balances and intraday repurchase agreements – was lower in 2010/11, although it has remained at high levels since the market turmoil of 2008 and 2009 (Graph 17). This increased liquidity is one of a number of factors that has allowed payments to

Graph 15
RTGS Transactions
Daily average



Graph 16
Number of RTGS Transactions
 Daily average



Source: RBA

Graph 17
Liquidity in RITS
 Daily average



Source: RBA

be made earlier in the day. On average, half of each day's payments by value were completed by 1.45 pm during 2010/11, unchanged from the previous year but an hour earlier than occurred in 2006/07.

RTGS payments account for around 90 per cent of the value of interbank settlements, with payments settled on a deferred net basis – related to retail payment systems – accounting for the remainder. Interbank obligations arising from retail payment systems are settled across ES accounts in the daily 9.00 am batch. In 2010/11, the average size of the 9.00 am batch (i.e. the sum of credit and debit positions) was \$3.8 billion, slightly higher than the previous year.

Exchange Settlement Accounts

The Board has ongoing responsibility for the Reserve Bank's policy on access to ES accounts. These accounts provide a means for ultimate settlement of interbank obligations via the exchange of a settlement asset – a deposit held with the Reserve Bank – that carries no credit risk.

Under current policy, to be eligible to hold an ES account an institution must be a provider of third-party (customer) payment services with a need to settle clearing obligations with other providers, and able to demonstrate that it has the liquidity to meet settlement obligations under routine conditions, during seasonal peaks and under periods of stress. In

general, applicants must be current or prospective members of a payments clearing arrangement or operate a clearing house arrangement. ES accounts are provided solely for settlement of obligations from the clearing process. An institution may be subject to collateral requirements as a condition of holding an ES account; this will depend on several factors, such as whether it is subject to supervision by the Australian Prudential Regulation Authority (APRA), the nature of its operations and the extent of its payments experience.

At present, all APRA-licensed banks are required to have an ES account. Other Authorised Deposit-taking Institutions can apply to have an ES account under the general policy outlined above. However, any entity that accounts for less than 0.25 per cent of all RTGS payments may elect to settle RTGS payments using another ES account holder as an agent.

A full list of ES account holders is available on the Reserve Bank's website.¹⁶

¹⁶ Available at <<http://www.rba.gov.au/payments-system/rits/membership/membership-list.html>>.

Oversight of Continuous Linked Settlement (CLS) Bank

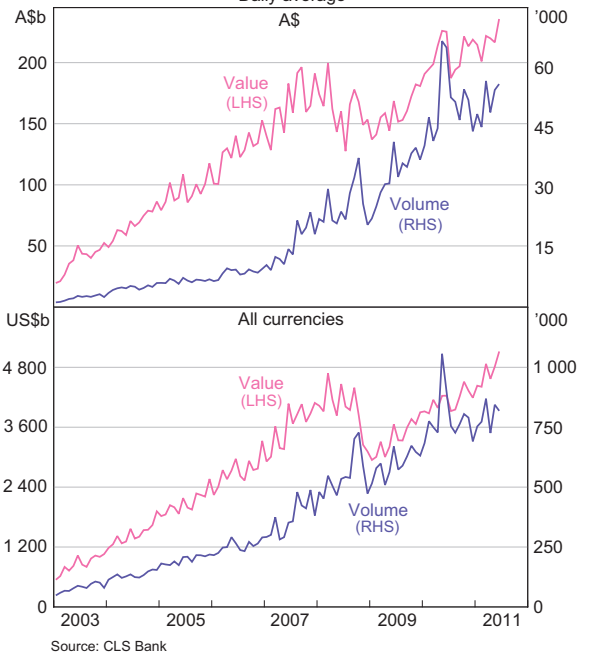
CLS Bank provides a mechanism for settling foreign exchange transactions on a payment-versus-payment basis, thereby eliminating foreign exchange settlement risk. There are 17 currencies eligible for settlement in CLS, including the Australian dollar. CLS also settles some one-sided payments related to non-deliverable forwards and credit derivatives, and offers an aggregation service that compresses large volumes of low-value foreign exchange trades for settlement.¹⁷

CLS is chartered in the United States and regulated and supervised by the Federal Reserve System. The Federal Reserve also co-ordinates the CLS Oversight Committee, which provides for co-operative oversight by the central banks of the currencies that settle in CLS. As CLS settles transactions involving the Australian dollar, the Reserve Bank is represented on this committee.

CLS is an important financial market infrastructure for the Australian financial system. It settled an average of \$211.6 billion of foreign exchange transactions involving the Australian dollar each day in 2010/11 (top panel of Graph 18). CLS settlement members fund their short positions arising from Australian dollar settlements by paying into CLS's ES account in RITS. These funds are then paid out to those settlement members with long positions in Australian dollars. The value of these payments in RITS is a fraction of the gross value of transactions involving the Australian dollar settled by CLS, however, because they reflect each settlement member's net position.

Across all currencies, the value of settlements in CLS has grown strongly since the financial market dislocation of late 2008 (bottom panel of Graph 18). The average daily value settled in 2010/11 was US\$4.4 trillion.

Graph 18
CLS Settlement
Daily average



¹⁷ The aggregation service works by bundling together into one transaction all buy sides and sell sides in a particular currency pair between two counterparties over an agreed period of time.

Oversight of Clearing and Settlement Facilities

The *Corporations Act 2001* assigns to the Reserve Bank a number of powers and functions relating to the oversight of clearing and settlement (CS) facilities. Under the *Reserve Bank Act 1959* it is the responsibility of the Payments System Board to ensure that these are exercised in a way that 'will best contribute to the overall stability of the financial system'.

Under the Corporations Act, CS facilities licensed to operate in Australia are required to comply with the Financial Stability Standards (FSS) set by the Reserve Bank.¹⁸ Four licensed CS facilities, all owned by the Australian Securities Exchange (ASX), are currently required to meet the FSS¹⁹:

- ASX Clear – the central counterparty (CCP) for cash equities, pooled investment products, warrants, certain interest rate products and equity- and commodity-related derivatives traded on the ASX market;
- ASX Clear (Futures) – the CCP for derivatives traded on the ASX 24 market;
- ASX Settlement – the settlement facility for cash equities and warrants traded on the ASX market; and
- Austraclear – the settlement facility for debt securities traded in over-the-counter (OTC) markets.

While assessment is ongoing throughout the year, the Board conducts a formal assessment of each facility's compliance with the FSS once a year. The assessments covering the 2009/10 financial year were published in October 2010.

Developments in the Licensed Clearing and Settlement Facilities

The backdrop for the operation of clearing and settlement facilities in 2010/11 was one of reduced volatility overall in market prices, despite some pick-up around the time of the Japanese earthquake and tsunami and as European sovereign debt concerns came into sharper focus in May 2011. Trading activity has varied from market to market, but reductions in the value of securities traded have resulted in reduced activity in the two ASX settlement systems, while increased derivatives trading has tended to be offset by reduced volatility in determining the overall level of risk faced by the CCPs. These differences across markets have been reflected in margins held.

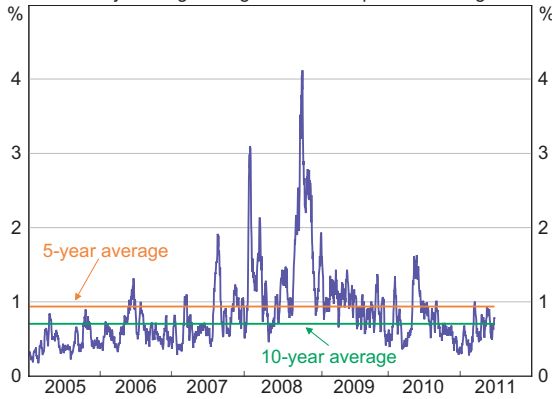
The average volatility in equities prices, as measured by the absolute daily percentage change in the S&P ASX All Ordinaries index, declined from 0.8 per cent in 2009/10 to 0.6 per cent in 2010/11 (Graph 19). While volatility picked up briefly in March following the earthquake and tsunami in Japan, peak volatility over the year remained well below that of 2009/10 and less than a quarter of that observed in 2008/09.

¹⁸ These standards, along with minimum measures relevant to meeting the standards and guidance regarding their interpretation, are available at <<http://www.rba.gov.au/payments-system/clearing-settlement/standards/index.html>>.

¹⁹ An additional licensed facility, operated by IMB Limited, falls outside the scope of the Financial Stability Standard for Securities Settlement Facilities due to its small size and the limited nature of its operations.

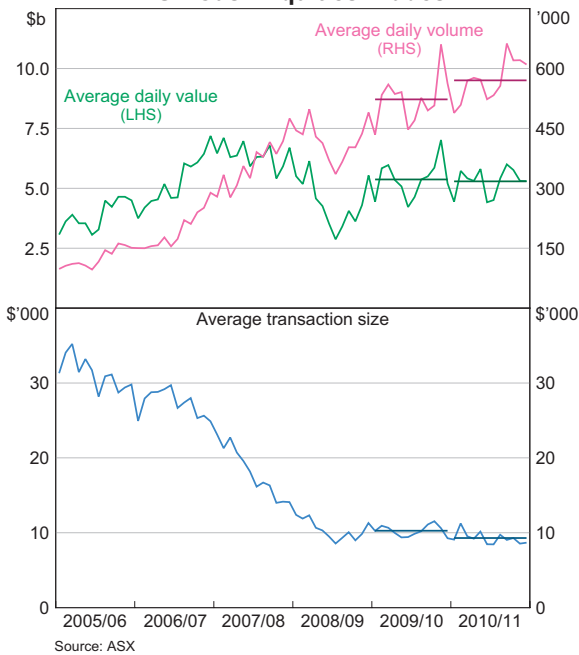
Graph 19
All Ordinaries Volatility

10-day moving average of absolute per cent change



The average daily value of cash equities trades fell by 1 per cent in 2010/11, but daily volumes increased by 9 per cent, reflecting a 10 per cent decline in the average size of a trade (Graph 20). Notwithstanding this fall, the average trade size has been relatively stable since the end of 2008 after falling substantially in earlier years, driven by growth in algorithmic trading and a trend among traders to break up large orders for gradual release into the market. The value of securities transactions settled by ASX Settlement decreased by 4 per cent, to an average daily value of \$8.1 billion. This was larger than the 1 per cent fall in traded values, because transactions settled include settlement of non-market transactions and account for multilateral netting of clearing participants' obligations.

Graph 20
ASX Cash Equities Trades



The average daily number of equities derivatives contracts traded on the ASX market increased by 7 per cent.²⁰ Despite this, the average daily total margin (initial and mark-to-market) collected on these positions by ASX Clear decreased by 22 per cent (top panel of Graph 21), reflecting the lower volatility in equities prices. Notional initial margins calculated by ASX Clear for the cash equities market also declined.²¹

The average daily number of derivatives contracts traded on the ASX 24 market grew by 29 per cent, mostly reflecting increased trading of interest rate futures. Despite the strong growth in trading activity, the average daily initial margin collected by ASX Clear (Futures) on these positions increased by merely 3 per cent (bottom panel of Graph 21). The relatively small increase in margins resulted from generally lower margin rates on the most commonly traded interest rate futures contracts, a reflection, once again, of lower volatility in the prices of those contracts.

20 In May 2011, the standard equity option contract size was changed from 1 000 shares to 100 shares. The calculation of the 7 per cent growth figure involves an adjusted measure of trading volume in 2010/11 that assumes that there was no change in contract size. See <http://www.asxgroup.com.au/media/PDFs/ma110706ASX_Group_Monthly_Activity_Report_-_June_2011_-_final.pdf>.

21 Notional initial margins are calculated by ASX Clear for risk management purposes, but are not assessed on participants.

For debt securities, the average daily value settled through Austraclear decreased by 5 per cent to \$39.5 billion. This value includes outright purchases and sales of securities, and securities transferred to effect repurchase agreements.

2009/10 Assessment

In October 2010, the Reserve Bank published its Assessment of the four licensed CS facilities against the relevant FSS, covering the year to end June 2010.²² The Reserve Bank concluded that all four facilities met the relevant standards over this period.

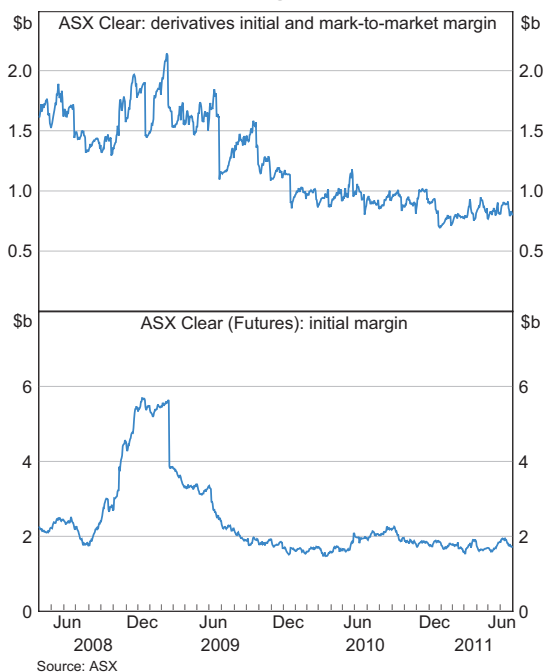
The assessment period was characterised by a strong increase in equities and derivatives transactions alongside relatively low price volatility. The decline in the volatility of prices from the previous year resulted in generally lower exposures for the CCPs; nevertheless, the facilities continued to improve their risk and operating frameworks. All of the CS facilities had adequate capacity to handle the increased market activity without any difficulty.

As in previous years, the 2009/10 Assessment included a more detailed evaluation of the facilities against one of the measures of the standards – in this case, the measure related to governance. The Reserve Bank concluded that ASX's governance arrangements around the management of financial risk are effective, accountable and transparent, consistent with the measure.

Other developments examined included:

- *Changes to the composition of pooled risk resources:* In the 2008/09 assessment period, ASX Clear replaced its default insurance arrangement with a commercial bank loan, following a ratings downgrade of the insurer it had been using. In late 2009, ASX Clear (Futures) also exited its default insurance arrangement; both CCPs now utilise a paid-up loan from ASX Clearing Corporation that is ultimately funded by a commercial bank.
- *Triggers for an increase in fixed risk resources:* ASX documented guidance on the circumstances in which it would consider increasing the CCPs' fixed risk resources (e.g. via a capital injection from ASX, additional default fund contributions from clearing participants and/or funds from a third party, such as debt). Higher fixed resources reduce reliance on additional collateral calls, which may be received only with a delay.
- *Improvements to default management arrangements:* During the assessment period ASX conducted default management 'fire drills' at both CCPs. The outcomes of these tests were used to refine the default management procedures and associated information flows. ASX also formalised arrangements with the broker it would use to conduct any necessary market transactions to close out a defaulting participant's positions (i.e. entering into offsetting positions on the exchange).²³

**Graph 21
Margins**



²² The 2010 Assessment is available at <<http://www.rba.gov.au/payments-system/clearing-settlement/pdf/report-2009-2010.pdf>>.

²³ Should this not be possible, ASX has a number of other means by which it can manage the exposures arising from a defaulting participant's positions.

- *Improvements to the equities settlement model:* ASX Settlement has now removed ASX Clear derivatives margins from the CHESS settlement batch, which ensures that ASX Clear's risk management arrangements are not dependent on successful completion of the settlement batch. ASX Settlement is also in the process of establishing an earlier deadline to back out settlement obligations in the event that a participant fails to meet its payment obligations. Setting an earlier deadline will reduce the potential for settlement delay and thus reduce the uncertainty that may affect the market at large in the event that a participant fails to meet its obligations.
- *Refinements to ASX Clear's risk framework:* ASX Clear replaced its uniform stress-test exposure limits with limits based on ASX's own credit ratings of participants. This allows ASX Clear to better manage its exposures according to the risk profile of different participants.

Progress has been made in several other areas, with work still under way:

- *Routine margining of cash equities:* In the 2008/09 Assessment, the Reserve Bank advised that introducing cash equity margining at ASX Clear would bring its risk management in line with international best practice. In October 2009, ASX released a consultation paper seeking views on proposed equity margining models and, with regard to industry feedback, continues to refine its proposed margining system.
- *Derivatives margining systems:* ASX has been working on upgrading both CCPs' derivatives margining systems to the Chicago Mercantile Exchange's Standard Portfolio Analysis of Risk methodology (CME SPAN). This will improve risk attribution and facilitate harmonisation across the two CCPs' systems.
- *Participant monitoring:* A number of enhancements have been or are in the process of being made to the arrangements for monitoring the liquidity and capital of ASX Clear and ASX Clear (Futures) participants.
- *Business continuity management policy:* ASX updated its business continuity management policy, to bring a number of areas into line with international best practice. Notably, ASX is working towards ensuring redundancy of all key systems at the backup and the main sites.

In addition, the prospect of competition in the trade execution industry has prompted ASX to establish a Trade Acceptance Service (TAS), to allow approved market operators access to ASX Clear and ASX Settlement's clearing and settlement systems.²⁴ ASX makes the TAS available under a published set of contractual terms of service, and each market operator is required to periodically certify that it complied with its requirements in the previous quarter. It is the Reserve Bank's opinion that the TAS does not affect the compliance of ASX's CS facilities with the FSS.

Prospective Changes to the Australian Clearing and Settlement Landscape

In Australia, as around the world, the competitive and regulatory environments in which CS facilities operate are likely to change significantly in the next few years. New market operators and CS facilities are entering the Australian market, the regulatory regime under which such financial market infrastructures operate is under review, and consideration is being given to regulation that will require the central clearing of OTC derivatives.

New financial market infrastructure

Chi-X Australia (Chi-X), which plans to offer an alternative platform for trading in ASX-listed equities, was granted a market licence by the Minister for Financial Services and Superannuation on 4 May 2011, following the finalisation by the Australian Securities and Investments Commission (ASIC) of the regulatory framework for competition

²⁴ Details of ASX's TAS are available at <<http://www.asx.net.au/clearing/trade-acceptance-service.htm>>.

between markets trading equities.²⁵ Upon launching, Chi-X's trades will be cleared and settled by ASX Clear and ASX Settlement respectively under ASX's TAS.

A new derivatives exchange, the Financial and Energy Exchange (FEX), has also applied for a market licence. FEX plans to offer trading in commodity, energy and environmental derivatives, and has contracted LCH. Clearnet Limited (LCH) to provide clearing and settlement. LCH is a London-based CCP that clears equities and derivatives for a number of exchange-traded and OTC markets overseas. It is regulated and supervised by the UK's Financial Services Authority (FSA).

Before it may clear and settle trades for the FEX market, however, LCH must be licensed to operate in Australia. LCH has chosen to apply for a licence under the alternative criteria in the Corporations Act, whereby overseas-based CS facilities may be licensed in Australia if they are operating under a regulatory regime sufficiently equivalent to the Australian regime.²⁶ If LCH is granted a licence under these alternative licensing criteria, it will be exempt from the Reserve Bank's FSS for such time as the Reserve Bank receives from the FSA annual documentary evidence that LCH complies with the FSA's regulations. The effect of this is that the Reserve Bank's annual assessment of CS facilities would not necessarily assess in detail LCH against each of the measures of the FSS (as it does for the ASX CS facilities). However, the annual assessment must still contain an assessment of whether LCH has done all other things necessary to reduce systemic risk (as required of all CS facilities by the Corporations Act). The Reserve Bank will rely largely upon information provided by the FSA and will seek to assess LCH on an equivalent basis to domestic facilities undertaking equivalent activities.

Review of the regulatory framework for financial market infrastructures

In early April 2011, the Treasurer asked the Council of Financial Regulators (the Council) to provide advice on measures that could be introduced to ensure that Australia's regulatory framework for financial market infrastructures continues to protect Australia's interests. A working group, chaired by Treasury, comprising representatives of the Australian Prudential Regulation Authority (APRA), ASIC and the Reserve Bank has been established to consider the adequacy of oversight, powers of direction and crisis-management arrangements for market operators and clearing and settlement facilities. The Council working group anticipates issuing a consultation paper seeking stakeholder views in the spring of 2011.

Central clearing of OTC derivatives

The Reserve Bank, on behalf of the Council, issued the discussion paper *Central Clearing of OTC Derivatives in Australia* in June 2011.²⁷ The paper describes the evolving global landscape for OTC derivatives and central clearing, as well as the Australian market for OTC derivatives, and presents a range of considerations that need to be weighed if central clearing in the domestic market is to be established. This work is required in part because of the substantial reforms in this area under way in many offshore jurisdictions. Along with these international developments, the interests of the Australian agencies also reflect a commitment by the G-20 group of countries (of which Australia is a member) to undertake significant reforms to strengthen OTC derivatives markets. In particular, these countries committed to see all standardised OTC derivatives transactions centrally cleared by the end of 2012.

²⁵ The market integrity rules for Competition in Exchange Markets and for the Chi-X Australia Market are available at <<http://www.asic.gov.au/asic/ASIC.NSF/byHeadline/Market%20integrity%20rules>>.

²⁶ While 'sufficient equivalence' is not defined in the Corporations Act, the Reserve Bank has nominated the aspects of a foreign regulatory regime that it considers in making an assessment of equivalence. These are available at <<http://www.rba.gov.au/payments-system/clearing-settlement/standards/overseas-equivalence.html>>.

²⁷ Available at <<http://www.rba.gov.au/publications/consultations/201106-otc-derivatives/pdf/201106-otc-derivatives.pdf>>.

Ahead of making recommendations to the Government on this matter, the Council is seeking feedback on the views and propositions set out in the paper. Written submissions were sought from interested parties in July and August, and the Council agencies will be hosting a number of roundtable discussions (and other meetings as appropriate) over the remainder of 2011.

CPSS–IOSCO Review of Standards

Since February 2010 the Committee on Payment and Settlement Systems (CPSS) and the International Organization of Securities Commissions (IOSCO) have been reviewing their existing published standards for payments, clearing and settlement systems:

- *Core Principles for Systemically Important Payment Systems (CPSS, 2001)*;
- *Recommendations for Securities Settlement Systems (CPSS and IOSCO, 2001)*; and
- *Recommendations for Central Counterparties (CPSS and IOSCO, 2004)*.

These standards set out principles for the design and operation of each type of system, with the aim of promoting stability and efficiency. They form the basis for oversight of these systems in many countries, including Australia. They also underpin elements of the Financial Sector Assessment Program of the International Monetary Fund and the World Bank.

The CPSS–IOSCO review aims to strengthen standards for financial market infrastructures in light of developments since the standards were originally introduced. These developments include the global financial crisis, increased competition between financial market infrastructures and increased regulation of OTC derivatives. The review also seeks to take advantage of regulators' experience in applying the existing standards.

As a member of the CPSS, the Reserve Bank has been involved in the review. The Head of the Reserve Bank's Payments Policy Department is a member of the steering group undertaking the review, and the Department also continues to contribute to specific work streams.

In March 2011, the CPSS and IOSCO released for public consultation *Principles for financial market infrastructures*,²⁸ a single set of standards for all financial market infrastructures that is intended to replace the three existing sets. The CPSS and IOSCO are reviewing the comments received during consultation, and aim to release a final set of principles in early 2012. Following the finalisation of the principles, the Reserve Bank will assess whether any changes are needed to the FSS.

²⁸ Available at <<http://www.bis.org/publ/cpss94.htm>>.

Liaison Activity

Liaison with Industry

The Reserve Bank consulted widely on payments, clearing and settlement issues in 2010/11. It met with various stakeholders in retail payments systems – including financial institutions, merchants, payment service providers and consumer representatives – to discuss a range of matters. Many of these discussions related to the Strategic Review of Innovation or the joint RBA–Treasury ATM taskforce. Meetings were also held with stakeholders in financial markets to discuss clearing and settlement issues. These included discussions related to the oversight of the licensed clearing and settlements (CS) facilities and prospective changes to the over-the-counter (OTC) derivatives market.

The Reserve Bank continued to work closely with other regulatory and government agencies. Examples include the joint ATM taskforce with Treasury, and the reviews of financial market infrastructures regulation and central clearing for OTC derivatives undertaken by the member agencies of the Council.

In line with its liaison agreement with the Australian Payments Clearing Association (APCA), the Reserve Bank met with APCA management following each APCA Board meeting in 2010/11, as well as with the APCA Board on a number of occasions. The liaison agreement was reviewed during the year, with some changes subsequently made to ensure that the arrangements remain effective.

The Reserve Bank participated in a number of public fora on payments system issues. The Deputy Chairman spoke on the strategic review of innovation at the Cards and Payments Australasia conference in March. The Head and Deputy Head of Payments Policy appeared before the Senate Economic References Committee's inquiry into competition within the banking sector. Other staff attended various payments and CS industry events, including conferences and forums organised by APCA and the Australian Securities and Investments Commission.

International Engagement

The Reserve Bank was represented at a number of international groups in 2010/11: the Committee on Payment and Settlement Systems (CPSS), the CLS Oversight Committee, the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP) Working Group on Payment and Settlement Systems, and the OTC Derivatives Regulators' Forum. Involvement in the CPSS included participating in a number of working groups and the review of the standards for payments, clearing and settlement systems.

The Reserve Bank also engaged with overseas central banks and regulatory agencies on a less formal basis. Such engagement included discussing competition issues in retail payments with relevant authorities in North America, and keeping abreast of developments in OTC derivatives regulation around the world via discussions with various central banks and securities regulators. Engagement with global financial market stakeholders, such as the International Swaps and Derivatives Association, also provided useful information about developments in OTC derivatives.

The Board's Announcements and Reserve Bank Reports

This section lists developments since mid 2010. The Payments System Board's 2006 Annual Report contained a list of the Board's announcements and related Reserve Bank reports up to that time. Subsequent Reports have contained an annual update.

2010

2009/10 Assessment of Clearing and Settlement Facilities in Australia, Reserve Bank of Australia, Sydney, October 2010.

2011

Media Release 2011-02, 'Payments System Issues' (announcing that the Board would consider consulting on a regulatory solution to issues surrounding data reporting requirements and brand fees on multi-function cards should the issues not be resolved in the public interest through negotiations between relevant parties), 25 February 2011.

The ATM Reforms – New Evidence from Survey and Market Data, Reserve Bank of Australia *Bulletin*, Sydney, March 2011.

Media Release 2011-10, 'Payments System Board Consultation on Card Surcharging' (announcing the release of a consultation paper on potential modifications to the 'no-surcharge' Standards), 8 June 2011.

Review of Card Surcharging: A Consultation Document, Reserve Bank of Australia, Sydney, June 2011.

Media Release 2011-11, 'Discussion Paper: Central Clearing of OTC Derivatives in Australia' (announcing the release of a discussion paper as part of the Council of Financial Regulators' consideration of Australia's response to the international reform efforts under way in global OTC derivatives markets), 17 June 2011.

Central Clearing of OTC Derivatives in Australia, Council of Financial Regulators, Sydney, June 2011.

Media Release 2011-13, 'Strategic Review of Innovation in the Payments System' (announcing the launch of the formal consultation phase of the Strategic Review and the release of an issues paper and the results of the Reserve Bank's 2010 Consumer Payments Use Study), 30 June 2011.

Strategic Review of Innovation in the Payments System: Issues for Consultation, Reserve Bank of Australia, Sydney, June 2011.

Strategic Review of Innovation in the Payments System: Results of the Reserve Bank of Australia's 2010 Consumer Payments Use Study, Reserve Bank of Australia, Sydney, June 2011.



RESERVE BANK OF AUSTRALIA