Other Retail Payments Developments

In addition to monitoring trends in the use of the various payment methods discussed in the previous chapter, the Board monitors a range of other developments relevant to its responsibilities of promoting competition and efficiency in the payments system. This chapter outlines developments during 2013/14 in wholesale interchange fees for card payments, fees paid by merchants for accepting card transactions and fees and incentives faced by cardholders. Trends in merchant surcharging and payments fraud are also discussed, along with some recent payments innovations (see 'Box B: Recent Innovations in Retail Payments').

Interchange Fees

Interchange fees are wholesale fees paid between a merchant's financial institution and a cardholder's financial institution when a cardholder undertakes a card payment. The Reserve Bank has put in place regulations for the level of interchange fees in the MasterCard and Visa credit card systems, the Visa debit card system and the eftpos debit card system.³ As outlined in the Bank's submission to the Financial System Inquiry, the Bank's interchange reforms reflected concerns about the lack of transparency around interchange fees. The Bank also considered that the large gaps that existed between the fees charged across credit card and debit card systems were not justified by the differences in costs and sent inefficient price signals to customers and merchants.

Under the Bank's standards, the weighted average of multilateral interchange fees in the above systems must not exceed certain benchmarks on specified compliance dates – 1 November of every third year after 2006, or on any date the card scheme makes a change to its interchange fee schedule. The multilateral interchange fee benchmarks were unchanged in 2013/14, at 0.50 per cent of the value of transactions for the credit card systems and 12 cents per transaction for the debit card systems, with these fees paid by the acquirer (merchant's bank) to the issuer (cardholder's bank).

Under the various interchange fee standards, card schemes have the flexibility to set different multilateral interchange fees for different types of transactions, provided that the weighted average of these fees for each system does not exceed the relevant benchmark on the compliance dates. In line with developments elsewhere, both the number of interchange fee categories and the difference between the highest and lowest fee categories have grown over the years since the Bank first introduced interchange fee standards. Over time, MasterCard and Visa have progressively introduced new, higher fee categories for consumer and business cardholders, based on the type of card held (e.g. premium/platinum, super premium, 'elite'/'high net worth'). This enables issuers to pay more generous incentives to holders of these cards. The schemes have also introduced fee categories based on factors such as the type of merchant (e.g. government/utility) and type of transaction (e.g. MasterCard's rates for contactless and low-value transactions). The growth in higher

³ For debit cards, MasterCard has provided the Bank with a voluntary undertaking to comply with the interchange fee benchmark in the Visa Debit Standard. All interchange fees quoted in this section exclude GST.

interchange categories has been accompanied by a reduction in fees in some other existing categories and the introduction of lower 'strategic' rates applying to transactions at selected merchants. While the number of categories and the range of fees have grown, overall, the interchange fee reforms have significantly brought down the average interchange fees paid in the international systems and have reduced the gap between interchange fees in the credit card, scheme debit and eftpos systems.

Table 4 shows the interchange fees currently applying in the credit card and debit card systems. Neither MasterCard nor Visa made changes to credit card interchange fees during 2013/14, after last making changes in June 2013. In the debit card systems, MasterCard and Visa made a few changes to their interchange fee schedules in November 2013. These changes included:

- both MasterCard and Visa increased their 'consumer standard' fees, which apply to manually processed or card-not-present transactions, such as those made over the telephone or internet (if another type of fee does not apply). MasterCard's rate increased from 12.0 cents to 15.8 cents per transaction, while Visa's fee increased from 0.20 per cent to 0.26 per cent
- MasterCard increased its 'consumer electronic' fee from 6.0 cents to 9.1 cents per transaction
- both schemes increased their 'consumer premium' rates. MasterCard increased its rate from 0.50 per cent to 0.91 per cent of transaction value, while Visa increased its equivalent fee from 0.40 per cent to 0.50 per cent.

eftpos Payments Australia Ltd (ePAL) left interchange fees for eftpos transactions unchanged in 2013/14, after introducing lower rates for qualifying merchants in October 2012.

Interchange rates applying to prepaid card transactions are not formally regulated. However, in September 2006 the Board noted its expectation that interchange fees for transactions on these cards would be published and set broadly in conformity with the Standard on interchange fees in the Visa Debit system. The changes to debit card interchange schedules made by Visa in November 2013 (as described above) applied to prepaid card transactions. In March 2014, MasterCard made amendments to its interchange fee schedule for prepaid cards. It increased the 'consumer electronic' fee for prepaid cards from 6 cents per transaction to 12 cents, and removed eight fee categories that applied to prepaid cards. Under the amended fee schedule, prepaid cards no longer attract rates specific to certain transaction types, such as micropayment and PayPass transactions; nor are there separate categories for specific merchant types (other than charities and strategic merchants).

Merchant Service Fees

The average fee paid by merchants to their financial institution for transactions on MasterCard and Visa credit and debit cards has been largely unchanged in recent years. In 2013/14 the average fee was largely unchanged at 0.78 per cent of the value of transactions (Graph 8). The average fee is 62 basis points lower than the level prevailing in the September quarter 2003, just prior to the original interchange reforms coming into effect. Over the same period, average merchant service fees for transactions on American Express and Diners Club cards have fallen by 71 basis points and 31 basis points, respectively. In 2013/14, the average fee for

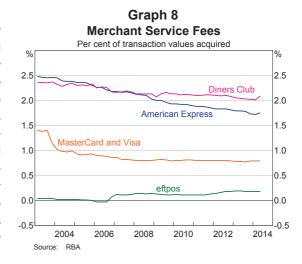


Table 4: Interchange Fees(a)

Excluding GST; as at 30 June 2014

	Credit card Per cent		Debit card Cents unless otherwise specified		
	MasterCard	Visa	MasterCard	Visa	eftpos
Consumer electronic	0.30	0.30	9.1 ^(b)	8.0	4.5
Consumer standard	0.30	0.30	15.8 ^(b)	0.26% ^(b)	_
Consumer premium/					
platinum	0.95	0.93	0.91% ^(b)	0.50% ^(b)	_
Super premium	1.59	_	_	_	_
\f. \f.		1.50			
Visa Rewards		or 1.70 ^(c)		_	
Visa Signature		1.80		_	_
Consumer elite/		1.80			
high net worth	2.00	or 2.00 ^(c)	_	_	_
		0.97			
Commercial	1.00	or 1.20 ^(d)	0.91%	0.85%	_
Commercial premium	1.30 or 1.35 ^(e)	1.30 or 1.80 ^(f)	_	_	_
	0.23	0.20	3.2	2.0	0.0
Strategic merchant	or 0.29	to 0.40	or 3.6	to 60.0	to 4.5
Government/utility	0.29	0.30	7.0	6.0	_
Charity	0.00	0.00	0.0	0.0	0.0
Petrol/service station	0.29	0.30	7.0	6.0	_
Education	0.29	0.30	_	6.0	_
Supermarket	_	0.30	_	6.0	-
Insurance	_	0.30	_	6.0	-
Transit	_	0.30	-	6.0	_
Recurring payment	0.29	0.30	10.0	6.0	_
Contactless ^(g)	0.29	-	5.0	-	_
Quick Payment Service	0.40	-	6.0	-	-
Micropayment ^(h)	_	-	0.4	_	0.0
SecureCode merchant	0.30	-	8.0	-	_
SecureCode full	0.30	-	10.0	-	_
Medicare Easyclaim	_	-	_	-	0.0
Benchmark	0.50	0.50	12.0	12.0	12.0

⁽a) Fees are paid by the acquirer to the issuer, except for transactions involving a cash-out component

⁽b) The rate applying to this category increased in November 2013

⁽c) The higher rate applies if an account is deemed qualified (if spending on that account exceeds a card-specific threshold)

⁽d) Visa has three types of non-premium commercial rates; the 'business' category attracts a fee of 0.97% while the 'corporate' and 'purchasing' categories attract a fee of 1.20%

⁽e) 1.30% for the 'commercial corporate executive' category and 1.35% for the 'commercial business executive' category

⁽f) 1.30% for the 'commercial premium' category and 1.80% for the 'business signature' category

⁽g) MasterCard PayPass transactions equal to or less than \$60, excluding commercial credit cards

⁽h) Transactions with a value equal to or less than \$15

Sources: ePAL website; MasterCard website; RBA; Visa website

American Express transactions declined by 6 basis points to 1.74 per cent of the value of transactions, while the average Diners Club fee declined by 3 basis points to 2.04 per cent.

The average merchant service fee for eftpos transactions was little changed in 2013/14 at 10.4 cents per transaction. This corresponds to a rate of 0.18 per cent for the average eftpos transaction, well below the rate for a transaction over the international schemes' networks. However, as eftpos fees are generally charged on a flat basis per transaction, eftpos fees can be higher than the ad valorem rates applying to transactions over the international schemes for some low-value transactions.

Pricing and Product Offerings to Cardholders

In 2013/14, the mix of cards offered to consumers continued to evolve gradually in a manner consistent with the longer-term trend towards the introduction of new 'premium' products by issuers. Most notably, premiumbranded cards were introduced into the prepaid market, focused on the travel industry.

Credit cards

As discussed in previous annual reports, card issuers offer a range of credit card products, each providing a different mix of fees, features and rewards to appeal to different customer types. At the broadest level, cardholders can choose between holding cards that offer no rewards (including 'low rate' and 'low fee') and cards with rewards programs ('standard', 'gold', 'platinum' and 'super premium'), with each successive category offering more generous rewards, but generally commanding higher annual fees. Consumers who use their credit card relatively frequently may be attracted to cards offering rewards points and other benefits such as travel insurance and enhanced warranties for goods purchased on the card.

For cardholders who carry outstanding balances from month to month ('revolvers'), low rate cards tend to be more attractive as the average interest rate on these cards is around 7 percentage points lower than the interest rate on rewards cards (Table 5). Low fee cards may be more attractive to cardholders who typically pay their credit card balance in full each month ('transactors'), but who use their credit card for transactions relatively infrequently.

In 2013/14 issuers continued to gradually expand the range of products offered at the premium end of the credit card market. This reflects the introduction of additional interchange fee categories by MasterCard and Visa in recent years. For instance, card issuers are likely to receive considerably more interchange revenue for 'elite'/'high net worth', super premium and platinum cards than for standard or gold cards.⁴

Broadly, in 2013/14 advertised annual fees for most types of credit cards appear to have fallen slightly while rewards programs generally became a little less generous. For example, the average annual fee for a non-rewards card fell from \$59 to \$52, reflecting a small fall for standard and low fee cards. Average annual fees for platinum and super premium rewards cards also fell slightly, though annual fees for standard/gold rewards cards increased a little. The fall in average annual fees partly reflects the introduction of products with lower annual fees, rather than the fees for existing products declining. The average expenditure required to earn a \$100 shopping voucher increased for standard/gold and platinum rewards cards, increasing to \$17 900 and \$15 900 respectively (as a result, the implied average return on spending fell, to 0.56 per cent and 0.63 per cent respectively). The required spending for super premium cards increased to \$11 100 (an implied average return on spending of 0.90 per cent).

⁴ A recent development in the premium segment of the market has been the introduction of elite/high net worth cards, which sit above super premium cards in terms of exclusivity and attract the highest interchange fees of up to 2.0 per cent of transaction value.

Table 5: Typical Features of Personal Credit Cards, by Type(a),(b) As at end June 2014

	Number of card products	Average annual fee	Average interest rate	Average spending for \$100 voucher (primary and companion card) ^(c)	Range of rewards benefit as per cent of spend (primary and companion card)(c)
	·	\$	Per cent	\$	Per cent
No rewards					
Standard, gold and platinum	31	52	16.6	_	-
of which:					
Low rate	13	79	12.8	_	_
Low fee	12	12	19.2	_	_
Rewards					
Standard or gold	24	85	19.9	17 900	0.25-1.00
Platinum	24	206	20.2	15 900	0.31-1.13
Super premium	8	424	20.0	11 100	0.60-1.25

⁽a) Reported averages are calculated as a simple average of relevant products' features; the total sample comprises around 90 credit card products offered by the top 10 credit card issuers and selected major merchants; the top 10 issuers are based on issuing market shares calculated from the Bank's Retail Payments Statistics collection; only products which are available to all new cardholders are included

Sources: RBA: card issuers' websites

Debit cards, transaction accounts and prepaid cards

The pricing of debit cards to consumers is less clear than credit cards because debit card services are generally bundled with a range of transaction and account services. The pricing arrangements for transaction accounts have been largely unchanged over the past few years, with the average advertised account-keeping fee for an unlimited transactions account remaining largely unchanged at around \$4.50 per month in 2013/14. This type of account entitles cardholders to an unlimited number of free transactions, including transactions made on eftpos, MasterCard or Visa debit cards, internet/telephone banking, cheque and branch transactions and ATM withdrawals made at ATMs operated by the cardholder's own institution. Some financial institutions offer these accounts for a zero monthly fee, while others offer lower fee accounts that provide free electronic, but not branch or cheque, transactions. More generally, in practice some account holders are not required to pay the advertised monthly fee, with institutions commonly waiving this if the cardholder deposits sufficient funds into the account each month or if the account is part of a broader package of banking services (e.g., if the cardholder has a home loan with the institution).

⁽b) For the purposes of this table, a rewards card involves the cardholder having the ability to accumulate a store of points, which may be redeemed for goods or services – other benefits such as instant cashbacks, overseas travel insurance and extended warranties are not included; only rewards programs where a \$100 shopping voucher can be redeemed are included in the calculations for rewards spending and benefits, but all rewards cards are included in the calculations for the number, annual fee and interest rate

⁽c) Average of the sum of the required spend for each applicable card; figures do not take into account the ability to earn additional reward points at certain merchants; the value of spending required to obtain a \$100 shopping 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

There were no significant changes in debit card product offerings in 2013/14. The premium segment of the debit card market remains small relative to both the overall debit card market and the premium credit card market. Premium debit cards usually feature some of benefits traditionally associated with credit cards, such as extended warranties and travel insurance. In at least one case, rewards points are provided, but the rate of point accrual is lower than for credit card rewards programs.

Prepaid cards represent a small proportion of the payment cards market compared with credit and debit cards, but the number of offerings and features available increased over 2013/14. In particular, prepaid cards connected to airline frequent flyer programs, namely Qantas Cash and Virgin Global Wallet, were introduced. These cards are largely promoted as enabling the cardholder to load foreign currency balances onto the card for use overseas as an alternative to cash, traveller's cheques, debit cards or credit cards. Australian dollar balances on these cards can be used domestically. In contrast to most types of prepaid card, these feature reward programs, typically focused on the accrual of frequent flyer points.

Surcharging

Since the Reserve Bank removed the card schemes' 'no-surcharge' rules as part of its payments system reforms starting in 2003, merchants have been able - should they choose - to pass on the costs of accepting credit and debit cards to cardholders choosing to use those payment methods. The removal of these no-surcharge rules appears to have had many of the desired effects, including providing better price signals to cardholders about relative card acceptance costs faced by merchants, reduced cross-subsidisation of card users by all other customers and greater scope for merchants to negotiate merchant service fees.

In 2012, the Board decided, after extensive consultation, to vary the surcharging Standards, reflecting its concerns about surcharging practices that had developed over the period since no-surcharge rules were removed. In particular, the Board was concerned about the increase in cases where surcharges appeared to be well in excess of card acceptance costs or where surcharges were 'blended' across card schemes with different acceptance costs for merchants. The revised Standards, which came into effect in March 2013, enable the international card schemes to modify their scheme rules to seek to limit surcharges to the 'reasonable cost of card acceptance' and to address cases where merchants are clearly surcharging at a higher level than is justified. Merchants are nonetheless still able to fully recover their legitimate card acceptance costs. The changes have been reflected in MasterCard and Visa scheme rules and American Express merchant agreements.

Significant developments in this area in 2013/14 included:

- The release of a study on surcharging by the Commonwealth Consumer Affairs Advisory Council which concluded that excessive or misleading surcharging practices can be detrimental to consumers when they are used as a mechanism to weaken price signals. The study noted that consumers are concerned about the surcharging practices of businesses in some industries, particularly those operating online. It encouraged businesses to improve the clarity and disclosure of their pricing practices to minimise consumer misunderstanding and considered that the Australian Competition and Consumer Commission (ACCC) would be an appropriate agency to investigate broader issues regarding excessive or misleading surcharges. It also found that 'credit card surcharges that reflect the reasonable costs of card acceptance are generally beneficial to consumers as they support wider acceptance of payment options that are convenient for Australian consumers while facilitating efficient outcomes within the payments system.' The study did not advocate for any modification of the Bank's surcharging Standards or Guidance Note.
- In June the ACCC announced that it was initiating separate proceedings in the Federal Court against two airline companies, alleging that each had engaged in misleading or deceptive conduct known

as 'drip pricing' in relation to the pricing of particular airfares. 'Drip pricing' is where a headline price is advertised at the beginning of an online purchasing process and additional fees and charges (which may be unavoidable for consumers) are then incrementally disclosed (or 'dripped'). The ACCC alleges that both airlines have failed to adequately disclose upfront an additional booking and service fee which applies to the majority of online bookings.

Based on data from East & Partners' semi-annual survey of the merchant acquiring market, the proportion of merchants that surcharge credit card transactions has continued to rise, with 43 per cent of merchants surveyed applying a surcharge on at least one of the credit cards they accepted in June 2014, up from 39 per cent in June 2013. Surcharging continues to be more common among 'very large' merchants (in the survey, those with annual turnover above \$725 million) and is significantly more common for American Express and Diners Club transactions than MasterCard and Visa transactions.

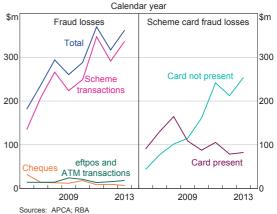
While a significant, and growing, share of merchants surveyed by East & Partners report imposing surcharges, it appears that, when faced with a surcharge, many consumers choose to use an alternative surcharge-free payment method. The results of the Bank's November 2013 consumer payments diary survey show that consumers paid a surcharge on only around 4 per cent of all card payments – a similar level to that recorded in 2010. The median value of surcharges paid by consumers participating in the survey was 1.8 per cent of the payment value – 1.5 per cent for MasterCard and Visa transactions and 2 per cent for American Express and Diners Club transactions. Surcharges were more commonly paid in a card-not-present environment (e.g for online transactions) than in a card-present environment where consumers paid a surcharge on only 2 per cent of card transactions.

Cheque and Card Payments Fraud

According to data collected by the Australian Payments Clearing Association (APCA), total fraud losses relating to fraudulent cheque and debit, credit and charge card transactions (where the card was issued and/or acquired in Australia) increased by 14 per cent in 2013, to \$362 million. The increase mainly reflected a rise in fraud on 'scheme' debit, credit and charge cards, which increased by 16 per cent to \$336 million (Graph 9, Table 6).

The large proportion of fraud accounted for by scheme card transactions, compared with cheque, eftpos and ATM transactions, mostly reflects the ability to use scheme cards in a card-not-present

Graph 9
Fraud on Cheque and Card Transactions



environment (for instance online, or via telephone or mail). At \$254 million in 2013, card-not-present fraud now makes up around 75 per cent of all scheme card fraud, up from 38 per cent in 2008 (Graph 9). Much of the increase in this type of fraud reflects the strong growth in online commerce; in addition, industry

⁵ In June APCA released a new annual publication, *Australian Payments Fraud Details and Data* which provides aggregate fraud data for 2008 to 2013 and an overview of industry initiatives aimed at reducing payments fraud. For details see: http://apca.com.au/docs/fraud-statistics/Australian-payments-fraud-details-and-data-2014.pdf.

⁶ Fraud statistics for 'scheme' debit, credit and charge cards include transactions through the international card schemes – MasterCard, Visa, American Express, Diners Club and JCB.

⁷ While fraud rates (the value of fraudulent transactions as a share of overall transactions) are not available for detailed categories, overall for Australian-issued cards, the rate of fraud increased from \$0.44 per \$1 000 in 2012 to \$0.49 per \$1 000 in 2013 to be a little below the 2011 peak of \$0.52 per \$1 000.

developments that have reduced the opportunities for card-present fraud (see below) may have made card-not-present fraud more attractive to fraudsters.

Table 6: Fraud Losses by Transaction Type

	2012	2013
All instruments	317	362
Cheques	10	7
All cards	307	355
eftpos and ATM transactions	16	18
Scheme debit, credit and charge cards	291	336
Australian cards used in Australia	111	128
Card present	38	39
Card not present	73	89
Australian cards used overseas	134	157
Card present	24	27
Card not present	110	130
Foreign cards used in Australia	46	51
Card present	17	17
Card not present	30	34

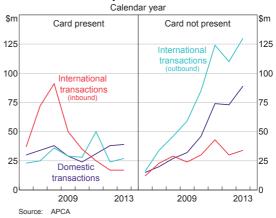
Source: APCA

Increased card-not-present fraud has been driven by both domestic and international transactions on Australian-issued scheme cards (Graph 10). Fraudulent card-not-present transactions overseas on Australian-issued cards ('international outbound') is the largest component and increased by 18 per cent in 2013, to \$130 million. Solely domestic card-not-present fraud increased by 23 per cent, to \$89 million. While card-not-present fraud in Australia on overseas-issued cards ('international inbound') also increased in 2013, it remains a small component of card-not-present fraud overall.

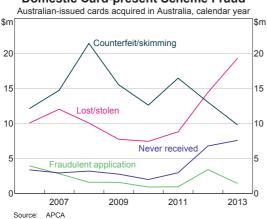
In contrast, card-present fraud on scheme cards has been generally flat or declining in recent years. Domestic card-present fraud was largely unchanged in 2013, reflecting a continued decline in counterfeiting/skimming fraud, offset by increases in 'lost/stolen' and 'never received' card fraud (Graph 11). The increase in these 'low-tech' types of fraud is likely due to fraudsters turning to more traditional methods of card theft (by obtaining cards through theft or intercepting newly-issued cards through the mail) as the adoption of EMV chip technology makes counterfeiting more difficult. The phasing out of signature authorisation starting from 1 August this year (see 'Box C: Card Industry Security Initiative: PIN@POS') is also likely to reduce

Graph 10

Domestic and International Card-present and Card-not-present Scheme Fraud



Graph 11
Domestic Card-present Scheme Fraud



Graph 12
Fraud on eftpos and ATM Cards



the incidence of card-present fraud. Despite recent media reports suggesting that growth in contactless payments is contributing to the increase in lost/stolen fraud, the \$100 limit imposed on the transaction value would likely limit the attractiveness of committing card fraud on contactless cards compared with card-not-present fraud.

Fraud related to eftpos and ATM transactions is relatively small, accounting for only 5 per cent of the fraud covered by APCA's collection. However, in 2013 fraud losses associated with eftpos and ATM transactions increased by 17 per cent, to \$18 million, reflecting an increase in card skimming at ATMs (Graph 12). The ongoing roll-out of the EMV chip standard at ATMs and plans for EMV chip eftpos cards should help reduce the remaining counterfeiting activity over the coming years.

Cheque fraud declined by 27 per cent in 2013, from \$10 million to \$7 million, to represent just 2 per cent of the fraud covered by APCA's collection. Taking into account the large value of payments made by cheque, the rate of cheque fraud is low, falling from 0.8 cents per \$1 000 transacted in 2012 to 0.6 cents per \$1 000 transacted in 2013.

Box B

Recent Innovations in Retail Payments

Over the past decade the use of electronic means of payment has grown significantly, while consumers' use of paper-based methods, such as cash and cheque, for transactional purposes has declined. New technologies and innovations in the way traditional payment instruments can be used have facilitated this growth and continue to affect payments behaviour.

While debit and credit cards remain a popular and widely accepted alternative to cash, there are an increasing number of ways to initiate and accept a card-based transaction. At the point of sale, there has been a transition from the traditional swipe-and-sign arrangement to authenticating transactions made on 'chip' cards with PINs or contactless payment technology. Indeed, contactless functionality has become a standard feature under many credit and debit card schemes (e.g. MasterCard's PayPass or Visa's payWave), and eftpos is expected to begin implementing this functionality on its debit cards by the end of the year. Some banks have also introduced mobile phone applications that allow their customers to make contactless transactions from accounts linked to their payment cards, using near field communication (NFC) technology embedded in the phone handset or in a sticker. More generally, results of the 2013 Survey of Consumers' Use of Payment Methods indicate some growth in the use of mobile devices to initiate payments. However, this has mainly reflected consumers using mobile devices to conduct online banking tasks or to make purchases at online retailers, rather than to undertake point-of-sale payments.

Other innovations have also allowed consumers to interact in more ways with existing payment infrastructure. For instance, ATMs with features beyond basic withdrawal and balance enquiries are being introduced in Australia. Services currently being rolled out through various ATM networks include the ability to make transfers between linked accounts, depositing cash and/or cheques, purchasing mobile phone recharge vouchers, and initiating a cash withdrawal via a code transmitted to a mobile phone instead of using a physical card. Although not currently available in Australia, in the US and more recently in the UK, the payments industry has also introduced a form of cheque imaging which allows users to capture images of cheques on their mobile devices and remotely deposit these (instead of the physical cheques) with financial institutions for processing.

On the merchant side, there are also innovations to allow merchants to accept card payments in a number of ways. A number of these efforts have centred on augmenting existing devices such as mobile phones or tablets with physical attachments and software to allow merchants to accept card payments at potentially a lower cost than more traditional payment terminals. Others involve plans to introduce tablet-like card terminals that would allow additional functionality to be implemented easily – for instance, by downloading apps to allow for tipping and splitting bills, or to perform accounting functions. The portability of card terminals (e.g. to allow payment at the table for the hospitality sector) has also been a focus of these innovations, in part driven by the transition from signature to PIN-only authentication currently being implemented.

Outside of the traditional payments system, the development of 'cryptocurrencies', such as Bitcoin, Litecoin and Dogecoin, has gained some attention. Unlike other electronic payment systems, these 'peer-to-peer' systems rely on networks of end-users to process and verify transfers, typically denominated in each system's own unit of account - that is, they are decentralised systems that do not need a network operator to process transactions. Although, end-users can, by design, interact directly with such systems, third-party service

providers such as virtual currency 'exchanges' have also been established to help facilitate users' interaction with cryptocurrencies. To date, the use and acceptance of these systems for payment purposes has been limited, despite some of the features advocated by proponents (e.g. pseudo-anonymity and faster cross-border transfers). This is partly due to the network effects inherent in payment systems: merchants are unlikely to accept payment methods that are not widely used, and users are slower to adopt payment methods not widely accepted by merchants. In addition, end-users may also have concerns over security and stability of cryptocurrencies, and many of their purported benefits may already be offered by more established payment methods.

Box C

Card Industry Security Initiative: PIN@POS

A joint industry initiative involving a group of card schemes and Australian financial institutions has been working on a program to phase out signature authorisation for credit card and debit card payments. In January, the group announced that the implementation date for this initiative would be 1 August 2014. Over a short transition period currently underway, and starting at some larger merchants, cardholders will be prompted to enter a PIN when completing a purchase at a point-of-sale terminal rather than using a signature.

Under the initiative, domestic transactions on Australian-issued American Express, Diners Club, MasterCard and Visa chip cards will require a PIN to be entered (PIN use is already mandatory for transactions over the eftpos network and for ATM withdrawals). However, arrangements for certain types of transactions will not change; for instance contactless transactions under \$100 will not require a PIN; international and magnetic-stripe transactions will also be exempt. The industry is working to establish arrangements for the limited number of cardholders who, due to individual circumstances, are unable to use PIN authentication. These cardholders will be able to use 'signature preferred' cards offered by some Australian banks.

The initiative is intended to improve the security of card payments made in-person. In particular, mandating PIN authorisation is expected to help protect against fraud arising from lost or stolen cards as it is much more difficult to obtain a PIN than it is to forge a signature. Over recent months the industry has run national advertising campaigns to inform the public of the upcoming changes and financial institutions have also been sending information to their customers. Further information about the initiative can be found at www.pinwise.com.au.