Speech

Online Retail Payments – Some Policy Issues

RESERVE BANK OF AUSTRALIA

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Introduction

Thank you for the opportunity to speak at the Merchant Risk Council (MRC) Conference. The MRC has an important role to play, bringing together merchants, service providers, regulators and law enforcement to make e-commerce safer and more efficient all around the world.

The payments landscape in Australia is continuing to evolve rapidly, with new business models and technologies emerging. This is particularly the case for online retail payments, which I will focus on today. But first, I will provide you with a brief update on the Australian Government's reforms to the RBA's regulatory role in payments and on the RBA's upcoming review of retail payments regulation.

Payments regulatory reform

We have been working with the Government to modernise the *Payment Systems (Regulation) Act 1998* (PSRA), which is the legislation that contains the RBA's regulatory powers. This legislation was established in the late 1990s, when the payments ecosystem was much smaller and simpler than it is today. The reforms to the PSRA will update the definitions of a 'payment system' and 'participant' so that newer players can also be regulated if necessary. This will include some systems and participants that are increasingly prominent in online retail payments, such as payment gateways, payment facilitators, digital wallet providers and 'buy now, pay later' (BNPL) services. The RBA will continue to have a broad mandate to promote efficiency, competition and safety in the payments system. For issues beyond the mandate of the RBA, the reforms will also make it possible for the Government to nominate a relevant regulator to use the powers under the PSRA in the national interest.

Upcoming RBA review of retail payments regulation

Once the reforms to the PSRA are in place, the RBA will launch a holistic review of retail payments regulation. It is good practice to review and reflect on current regulations. It will also enable us to consult widely on areas where regulation under the PSRA might be required to promote safety, competition and efficiency. This review will help us to set our regulatory priorities for the next few years.

Consistent with the original intent behind the PSRA, the RBA's approach to achieving our mandate will continue to focus on encouraging the payments industry to address efficiency, competition and safety issues itself. At the same time, the RBA will continue to stand ready to use its formal regulatory powers whenever necessary to achieve its mandate. To help us to determine when issues may justify regulatory intervention, we rely on some key principles:

- **Transparency** is important, since it can help inform users' payment choices, promoting competition, efficiency and safety.
- Businesses should have **freedom of choice** on which payment methods they accept.
- **Accurate price signals** can help users make efficient choices.
- **Fair access and innovation** can support competition and efficiency.
- Retail payment systems should be **safe and efficient**.

As part of the review, we will ask stakeholders whether these principles remain appropriate for guiding our approach to regulation across a broader range of payment systems and participants.

The review will also focus on some specific issues, including:

- **The transparency of payment services.** An area where greater transparency may be beneficial is transaction fees, to help merchants make informed choices and to promote competition between payment system operators and between payment service providers. Examples include the scheme fees levied by operators and the fees charged by providers.
- **Merchant payment costs.** Service fees for small businesses are much higher than for larger merchants. In this context, the RBA has been strongly encouraging financial institutions to provide merchants with 'least-cost-routing' (LCR) to enable them to route debit transactions to the lowest-cost card network (eftpos, Mastercard or Visa). We will be asking what more could be done to help lower payment costs for small businesses, particularly in a world where electronic payments are ubiquitous.
- **Surcharging.** The RBA's surcharging regulations aim to encourage consumers to use lower-cost payment methods and strengthen the bargaining position of merchants relative to payment system operators. However, the payments landscape is very different to when surcharging was introduced. Many consumers have shifted from paying by cash to cards and there is increased public concern about payment surcharges. So, it is time to ask whether the surcharging framework is still fit for purpose and whether any changes need to be made.
- **Mobile wallets.** Consumers have embraced using mobile wallets for payments in recent years. They are benefiting from the greater convenience and enhanced security that mobile wallets can provide. At the same time, there are issues around the transparency of the fees charged by some mobile wallet providers to card issuers, and competition issues relating to restrictions on access to 'near-field communication' technology for third-party apps.
- **The cost and transparency of cross-border payments.** Despite some improvements over recent years, the cost of cross-border payments continues to be very high relative to domestic payments. We will be asking whether there is a case for policy action to lower the cost and increase the transparency of cross-border payment services for consumers and merchants and, if so, what form such action should take.

Many of these issues involve online retail payments, to which I will now turn.

Online retail payments in Australia

Online retail payments are growing strongly in Australia, driven by the long-term rise in e-commerce. In the consumer payments survey that we run every three years, 40 per cent of consumer payments (by value) were online in 2022, up from 13 per cent back in 2007. Over half of consumer payments for services were made online, especially for holidays, leisure and paying bills. The payment methods used by consumers online are quite diverse, including cards, 'pay-anyone' transactions through internet banking, BPAY, digital wallets and BNPL services.

Over the past 10 years, most of the growth in online retail payments has been in cards, so I will start off by outlining some of the policy issues we are looking at in this space. I will then provide an update on what we know about volume and cost trends in BNPL services. And I will finish by looking to a future where account-to-account services through fast payment systems could inject more competition into online retail payments.

Policy issues in card payments

There are four policy issues that I would like to briefly focus on:

- The cost of card payments for end users, particularly trends in scheme fees and international card transaction costs.
- How the least-cost routing of online debit card transactions can help lower merchant costs.
- Promoting competition for payment services on e-commerce platforms.
- Introducing more standardisation for tokenisation in online card payments.

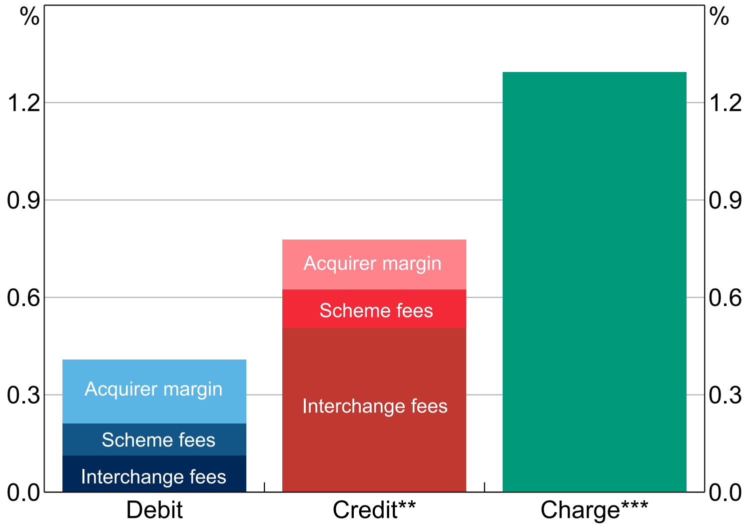
The cost of card payments for end users

The RBA has a longstanding focus on payment costs for merchants, as a key indicator of the efficiency and competitiveness of our payments system. Looking at the average transaction costs for cards issued in Australia, debit cards cost merchants around 0.4 per cent, credit cards cost around 0.8 per cent and charge cards cost around 1.3 per cent (Graph 1).[1] The wholesale costs of debit and credit card payments (which are the interchange fees paid by acquirers to issuers and the scheme fees paid by issuers and acquirers to the card networks) explain half of merchants' debit card costs and most of credit card costs. The remainder is the margins acquirers charge merchants above the wholesale costs. These margins include the acquirers' costs of providing payment services along with their profits. The charge card model is different, with no separation between wholesale costs and acquirer margins since the charge card networks have commercial relationships directly with merchants.

Graph 1

Average Merchant Fees of Card Payments*

Per cent of transaction values, 2022/23



* Domestic card transactions. The acquirer margin component is estimated as the difference between average merchant fees and wholesale costs (the sum of average interchange and scheme fees).

** Mastercard and Visa Credit only. Interchange fee component is calculated by taking each scheme's weighted average credit interchange rate and weighting those rates by the number of transactions for each scheme.

*** There is no decomposition into separate cost components since charge card schemes have commercial relationships directly with merchants.

Source: RBA.

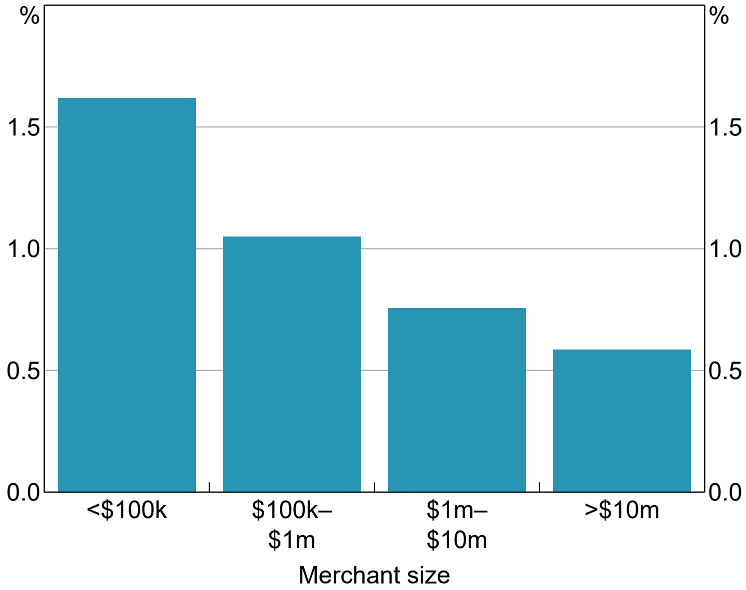
Merchant fees have come down over the past 20 years, supported by regulatory interventions by the RBA. These included capping interchange fees and allowing merchants to recover their costs through surcharging, which gave merchants more bargaining power in their negotiations with payment service providers and the card networks.

Nevertheless, the cost of card payments is substantial for small businesses, which pay much higher fees per transaction than large businesses (Graph 2). Large merchants have the bargaining power to directly negotiate much lower 'strategic' interchange rates from the networks (Graph 3). Large businesses also benefit from lower payment costs due to economies of scale. However, the higher acquirer margins paid by small businesses could also suggest that the market for payment services is not as efficient and competitive as it could be.

Graph 2

Cost of Acceptance by Merchant Size*

Per cent of value of card transactions, 2022/23



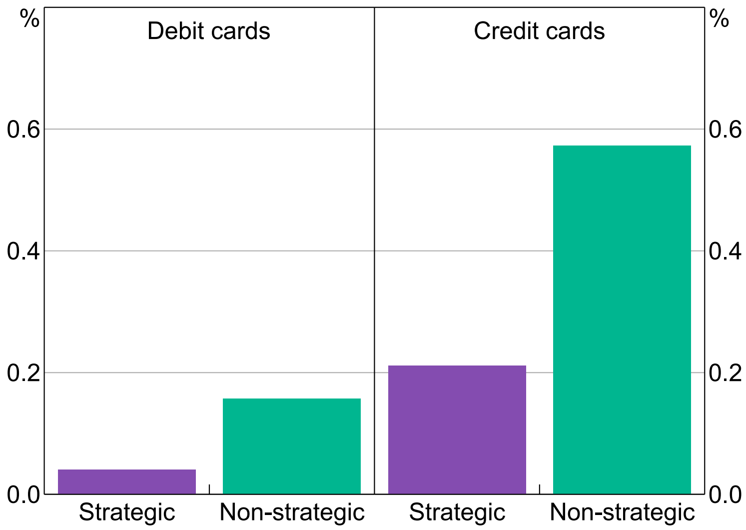
* Weighted average. Merchant size based on annual value of eftpos, Mastercard and Visa transactions.

Source: RBA.

Graph 3

Domestic Interchange Fees*

Per cent of transaction values; 2022/23



* Strategic interchange fees are available for typically larger merchants who meet certain requirements (e.g. volume requirements) as defined by the schemes.

Source: RBA.

Scheme fees

Scheme fees have been rising, increasing costs for merchants. These fees can be very complex and opaque, and unlike interchange fees, there are no regulations restricting their growth. In response to concerns about trends in scheme fees, since 2021/22 we have been collecting annual data to improve transparency. Here are the aggregate scheme fee data for 2022/23 (Table 1).

Table 1: Net Scheme Fees
Basis points of transaction values[(a)]

	2021/22	2022/23	Basis point change
Domestic card transactions			
Acquirers	**9.9**	**10.6**	**0.7**
Debit cards	8.8	9.9	1.1
– Tap/insert card	5.0	5.5	0.5
– Tap device	11.4	12.5	1.1
– Online	13.2	14.3	1.1
Credit cards	12.0	11.9	–0.1
– Tap/insert card	11.0	11.2	0.2
– Tap device	12.0	12.3	0.3
– Online	12.6	12.2	–0.4
Issuers	**2.8**	**3.0**	**0.2**
Debit cards	2.2	2.6	0.4
Credit cards	3.8	3.7	–0.1
International card transactions			
Acquirers	**157.3**	**158.0**	**0.7**
Issuers	**44.4**	**64.5**	**20.1**

(a) Includes scheme fees paid to eftpos, Mastercard and Visa.

Source: RBA

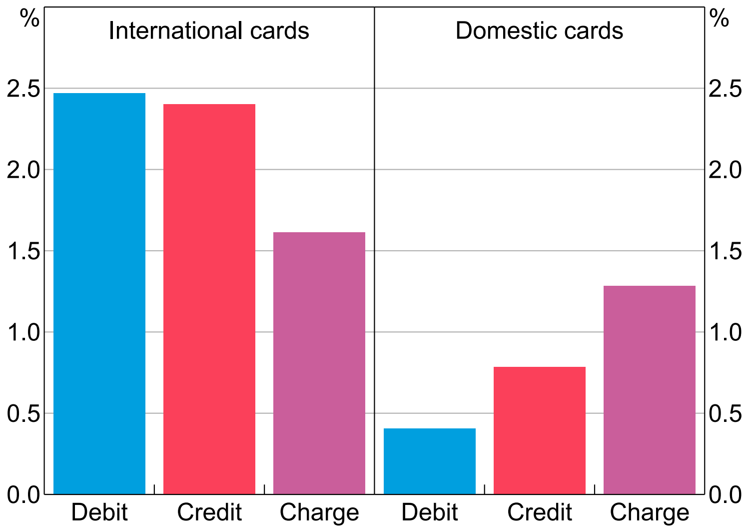
Net scheme fees of around $1.9 billion were paid by Australian acquirers and issuers to the card networks in 2022/23. This was a 43 per cent increase relative to 2021/22 and was significantly higher than the 16 per cent growth in card transactions in that period. Most of the very strong growth in scheme fees was for international card transactions, which bounced back up after the COVID pandemic emergency measures ended. On average, the net scheme fees paid by acquirers (relative to the value of card transactions) were 10 basis points for domestic debit cards and 12 basis points for domestic credit cards. In contrast, net scheme fees were much lower for issuers, since the networks offer generous rebates on scheme fees to issuers when they compete for their card issuing business. As a result, most of the burden of scheme fees falls on acquirers, which then gets passed on as higher costs for merchants.

Beneath these aggregates, there is a lot of variation in scheme fees between the different card networks. So greater transparency of the scheme fees being charged by each card network could help merchants better understand these fees and make better informed decisions, such as to which network they route debit transactions. However, we are unable to publish data on the fees charged by each network, because the international card networks did not grant permission when it was requested. We will raise the case for more transparency on scheme fees as an issue for consultation in our upcoming review.

International card transaction costs

The cost of international card transactions is a significant issue for e-commerce businesses and consumers. When a card is used across borders, the costs are substantially higher than when it is used in the jurisdiction where it was issued. Turning first to the costs faced by Australian merchants selling goods and services to international customers, on average they face merchant service fees of around 2½ per cent for debit and credit cards (Graph 4). These costs have risen over the past few years, unlike domestic card costs, which have been relatively flat at much lower levels. Over the same period, merchant service fees for international charge card transactions have actually declined to around 1.6 per cent. It is also interesting to note that the gap between the cost of domestic and international charge card transactions is much smaller; while international charge card transactions cost merchants less than equivalent debit or credit cards, the relative cost of domestic transactions is the other way around.

Graph 4
Merchant Service Fees
Q1 2024



Source: RBA.

The high cost of international debit and credit card transactions faced by Australian merchants appears to be mainly due to the wholesale costs for these transactions, which includes:

- **Interchange fees.** When an international card is presented at an Australian merchant, an interchange fee is paid by the merchant's acquirer to the foreign issuer of the card. After intervention by the RBA to encourage more transparency, in 2021 the international card networks started publishing their interchange fee schedules for international transactions. From these schedules, we can see that international interchange rates can be as high as 2.4 per cent. These fees are well above domestic interchange rates, which are capped through regulation at much lower levels (0.8 per cent for credit transactions and 0.2 per cent for debit transactions with ad valorem interchange rates).
- **Net scheme fees**. The international card networks also charge acquirers net scheme fees of around 1.6 per cent of the value of international card transactions. To give you an indication of just how substantial the scheme fees are on international card transactions, they account for one-third of the scheme fees being paid by Australian acquirers, even though international card transactions are only around 3 per cent of all the card transactions processed in Australia.

When we add up the interchange fees and scheme fees, the wholesale costs of international card transactions are actually higher on average than the merchant service fees being charged by acquirers. This suggests that some acquirers are cross-subsidising the high wholesale costs of international card transactions through higher merchant fees on domestic card transactions.

Consumers also face substantial costs when they use their Australian-issued cards to pay for goods and services where the card payments are processed outside Australia. The typical fee charged on these transactions by Australian banks is 3 per cent, and consumers also pay around a ½ per cent markup as part of the exchange rate offered by the international card networks.[2] These fees on Australian cardholders are similar to those faced by cardholders in other jurisdictions such as the United States, United Kingdom and New Zealand.

So when we add up the costs faced by merchants and consumers on international card transactions, the total end-to-end cost is around 5–6 per cent. This is occurring at a time when there is heightened international attention on the cost of cross-border payments. The G20 has a program to improve the speed, cost, accessibility and transparency of payments across borders.[3] As part of this, the G20 has set an ambitious target for the global average total cost of sending retail payments (including person-to-business payments) to be no more than 1 per cent by the end of 2027. International card payments would present an excellent use case for exploring how the cost of cross-border payments could be reduced for end users.

In our upcoming review, we would like to hear your views on whether there is a case for lowering the cost and increasing the transparency of cross-border payment services for merchants and consumers.

How the least-cost routing of online debit card transactions can help lower merchant costs

Turning back to domestic transactions, the RBA is focused on increasing competition in the debit card market to keep downward pressure on payment costs for merchants. This is particularly important since, with the decline in the use of cash for payments, debit cards are now used in half of all consumer transactions in Australia. The main priority here is to allow merchants to choose the lowest-cost card network (eftpos, Mastercard or Visa) to process their debit transactions.

For merchants to take advantage of LCR, payment service providers need to upgrade their systems to support it. To provide greater transparency on whether providers are getting this done, we have been publishing reports every six months on LCR availability and take-up across the major providers.[4] By the end of 2023, the most progress had been made for transactions where a card is presented, where LCR was available to almost all merchants and enabled for 65 per cent of them (Table 2). While this is good progress across the industry, there is still more work for some providers to do. Given this, in our upcoming review, we are planning to ask whether a formal regulatory requirement is necessary for LCR.

Table 2: Least-cost Routing of Card-present Debit Card Transactions

Per cent of merchants, December 2023[(a)]

	Available to merchants	Enabled for merchants[(b)]
Square	100	100
Stripe	98	98
Suncorp Bank	100	67
Tyro	100	65
Fiserv	100	47
Commonwealth Bank	97	47
National Australia Bank	100	47
Westpac	100	40
ANZ Worldline	98	31
Adyen	100	23
Total	**99**	**65**

(a) Figures have been rounded to whole percentage points. Consequently, a value of 100 may still mean LCR is not available/enabled for every merchant of that institution. Figures exclude very large (strategic) merchants and merchants that supply their own payment terminals.

(b) For the avoidance of doubt, those institutions with the highest rates of LCR enablement do not necessarily provide merchants with the lowest overall payment costs.

Source: RBA

LCR for card-not-present transactions is at a much earlier stage of progress, with only five of the top 12 online payment service providers making LCR available to all their merchants, and only two providers having LCR enabled for a significant share of their merchants (Table 3). This partly reflects that eftpos' online payment service is still relatively young, having started in 2022. Many providers are still part way through their projects to fully support eftpos payments online. The RBA expects providers to make LCR widely available for online transactions and to enable LCR for merchants that could benefit from it, so we need to see much more progress here.

Table 3: Least-cost Routing of Card-not-present Debit Card Transactions

Per cent of merchants, December 2023[(a)]

	Available to merchants	Enabled for merchants[(b)]
Stripe	100	68
Fat Zebra	100	32
Adyen	100	7
Fiserv	100	2
Westpac	100	0
Commonwealth Bank	59	7
National Australia Bank	15	0
ANZ Worldline	0	0
Braintree	0	0
SecurePay	0	0
Suncorp Bank	0	0
Tyro	0	0

(a) Figures have been rounded to whole percentage points. Consequently, a value of 100 may still mean LCR is not available/enabled for every merchant of that institution. A value of 0 may mean LCR is available/enabled for some, but only a very small proportion, of merchants of that institution. Figures exclude very large (strategic) merchants and data relating to merchants where the listed institution only provides gateway services.

(b) For the avoidance of doubt, those institutions with the highest rates of LCR enablement do not necessarily provide merchants with the lowest overall payment costs.

Source: RBA

The next frontier for LCR is mobile wallet transactions, such as through Apple Pay and Google Pay. This is particularly important given the rapid growth in the use of mobile devices for in-person card transactions. We have been engaging regularly with the major mobile wallet providers and they are making good progress towards being able to support LCR for mobile wallet transactions by the end of this year.

We can see evidence in scheme fees that suggests LCR may have some competitive benefits (Table 1). For in-person transactions, LCR is available when a debit card is tapped, and the scheme fees charged are much lower than when a mobile wallet is tapped, where LCR is not yet available. Supporting the argument that LCR could be making the difference here, when we look at credit cards, where there is no competition from a domestic network, scheme fees are higher on average and there is much less variation in fees depending on whether a card or a mobile wallet is tapped.

Finally on LCR, we recently published an article with our first estimates of the effects of LCR on a merchant's cost of accepting debit card payments.[5] We found that the cost of accepting debit card transactions is nearly 20 per cent lower for merchants that have LCR turned on, compared to those with LCR turned off. Once LCR for online and mobile wallet payments is widely available and taken up by merchants, the potential cost savings are likely to be even larger.

In our upcoming review, we would like to hear your views on the effectiveness of LCR to date, and whether a formal regulatory requirement is necessary to ensure broad adoption.

Promoting competition for payment services on e-commerce platforms

Online payment services are increasingly bundled within a much wider service offering. Merchants can benefit from the convenience of having these services supplied together. However, this also has the potential to limit competition between payment service providers. Some providers have become substantial players in their respective markets and may be able to leverage their power and loyal customer base in ways that restrict access or otherwise limit competition. These providers typically offer value-added services, but at additional cost. This raises questions about the effect on the overall efficiency of the payments system.

For example, e-commerce platforms offer a range of services to small merchants wishing to sell their products online, including setting up an e-commerce website, managing inventory, tracking orders to shipping, providing customer support and processing payments. Some of the larger e-commerce platforms (such as Shopify, Squarespace, WooCommerce and Wix) are setting up proprietary payments processors and are at various stages of rolling them out in Australia. Some e-commerce platforms limit the ability of their online merchant customers to integrate with competing payment service providers or they charge them substantial fees for doing so. This can make it uneconomic to use competing payment service providers. As a result, small merchants could be missing out on lower cost or more innovative payment services.

In our upcoming review, we would like to hear your views on whether there is sufficient competition for online payment services, and what could be done to promote more competition.

Tokenisation of online card payments

Card-not-present fraud continues to be a challenge for the payments industry. According to the Australian Payments Network (AusPayNet), there were 5 million fraudulent card-not-present transactions in Australia or on Australian-issued cards in 2022/23, worth almost $700 million. In addition to these losses (which are often borne by the merchant), cardholders, merchants and financial institutions incur significant costs investigating and resolving fraud cases.

An important initiative to improve security in online card payments is tokenisation. By holding tokens instead of sensitive card details, merchants and payment service providers can significantly reduce the risk that these card details will be stolen from their systems and used by fraudsters. The RBA has been working with industry on tokenisation to promote security, efficiency and competition in the payments system. In addition to improving security, tokenisation raises some efficiency and competition issues where some standardisation across the industry could help:

- **Token portability.** The tokens issued by the international card networks are often specific to a particular merchant and their payment service provider. This means that if a merchant has deleted their customers' sensitive card details and then wants to change their payment service provider, they may need to ask their existing customer base to re-enter their card details for future transactions. This would be highly unattractive to many merchants, as it could result in failed transactions and customer attrition. It also makes it less likely that merchants would be willing to delete their customers' sensitive card details, undermining the benefits of tokenisation. To address this issue, the RBA has set an expectation for industry to support the portability of tokens by 30 June 2025.
- **Synchronisation.** To make sure that merchants can take advantage of LCR of debit cards online, it is important that all network tokens are updated simultaneously when issuers update details for dual-network debit cards (such as a new expiry date). This avoids the risk that some online debit card transactions would fail due to only one network token being updated.

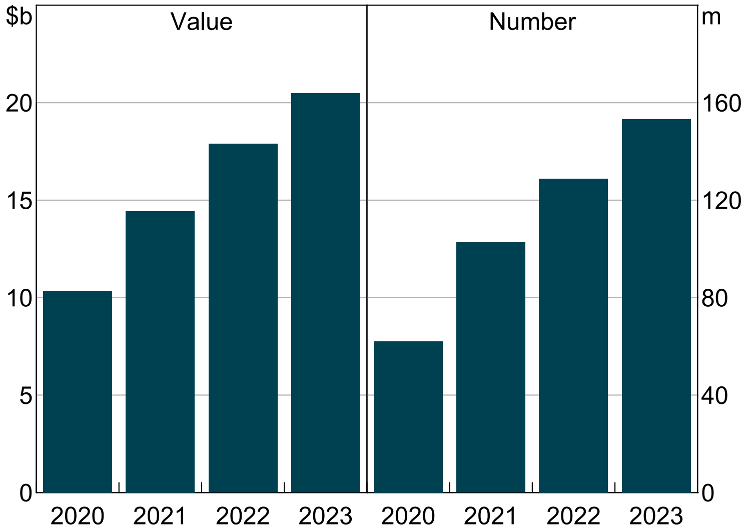
AusPayNet has established an industry working group that is exploring the development of technical standards to support token portability and also ways to aid token synchronisation across the payments chain. This is a complex space, so we welcome AusPayNet's work on potential technical standards and encourage you all to participate actively in this process.

Trends in 'buy now, pay later' services

BNPL services allow customers to purchase goods and services on credit and make interest-free repayments to the BNPL provider. Despite some smaller BNPL providers exiting the market, BNPL transactions continued to grow strongly in 2023 (Graph 5). The value of BNPL transactions was around $20 billion, which is equivalent to around 2 per cent of Australian card purchases.

Graph 5

BNPL Transactions*



* Includes transactions at partner and non-partner merchants.

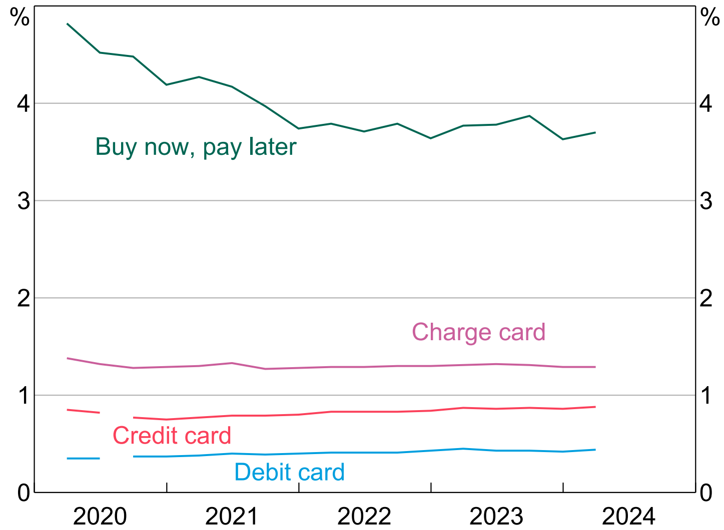
Source: RBA.

While BNPL services offer benefits to consumers, they are typically an expensive way for merchants to accept payments. The average BNPL transaction costs the merchant around 3½ per cent of the value of the purchase, which is well above the cost of card transactions (Graph 6). Most BNPL services do not allow merchants to pass on the cost to consumers through surcharging. Surcharges could be used by merchants to signal to consumers that they are using a relatively expensive payment method.

Graph 6

Average Merchant Fees

Per cent of transaction values*



* Merchant services fees for domestic and international cards; there was a change in the calculation of the merchant service fees for credit and debit cards in September 2020.

Source: RBA.

In 2021, the RBA concluded that merchants should be allowed to surcharge BNPL services.[6] The RBA's view at the time was that any benefits of no-surcharge rules in terms of supporting new entry into the payments market was outweighed by the costs in terms of efficiency and competition in the payments system. However, it was not clear that the RBA had the power to require the removal of these no-surcharge rules. After the reforms to the PSRA, the RBA plans to revisit this issue as part of a broader review of whether the RBA's surcharging framework remains fit for purpose. We welcome views on whether there have been developments that justify reconsidering whether BNPL providers should remove no-surcharge rules.

One key development has been the Government recently introducing legislation to Parliament to bring the regulation of BNPL into line with other types of credit. Under the reforms, BNPL providers will be required to hold an Australian credit licence and be subject to regulation by the Australian Securities and Investments Commission. They would have to comply with requirements on product disclosure and take steps to make sure they are lending responsibly.

Potential use of fast payment systems for retail payments

Cards are currently the dominant payment method used in Australia for in-person and online retail payments. However, when we look to other countries in our region, we can see alternative models of electronic retail payments that are less reliant on cards. For instance, in many countries in southeast Asia, merchants are providing QR codes that their customers can use to pay them by account transfer through fast payment systems. These merchants and consumers have a fast and low-cost electronic alternative to card payments.

We could see a similar wave of retail payments innovation unleashed in Australia through the New Payments Platform (NPP) and its PayTo service. This service provides a convenient and secure way for consumers to authorise merchants to initiate a payment from their account via the NPP. PayTo will modernise the way we make direct debits by giving customers more control. Direct debits are currently processed through the legacy Bulk Electronic Clearing System and are expected to largely transition across to PayTo over the period ahead.

PayTo can also be used by merchants as an alternative to cards for online payments, and potentially in-store purchases. The major banks have all made PayTo available to their retail customers, so it now has the critical mass of consumer accounts for payment services to launch. There are many providers, from fintechs to major banks, that are developing innovative retail payment services that leverage PayTo. While it is early days in the development of this service, the volume of PayTo transactions is growing rapidly.

Looking further ahead, interlinking fast payment systems across countries has the potential to provide consumers and businesses with an alternative way to make international e-commerce payments. The ASEAN-5 countries (Indonesia, Malaysia, the Philippines, Singapore and Thailand) are currently working on interlinking their fast payment systems, with the aim of supporting low-cost remittances and retail transactions. We are monitoring these developments closely to help assess whether Australia should be involved in similar initiatives in future. To contribute to this debate, we recently published a report highlighting the benefits and challenges with linking fast payment systems across countries.[7]

Conclusion

To conclude, we are seeing rapid changes in the payments landscape, with new business models and technologies emerging, particularly in online retail payments. Given this, the RBA has been working with the Government to modernise the regulatory framework and we are preparing to launch a holistic review of retail payments regulation once the PSRA reforms are in place. Your input to this review process will be highly valuable. There are many interesting policy issues to explore, including the cost and transparency of payment services and how we can promote competition that benefits end users. We look forward to continuing working with you all as we promote an efficient, competitive and safe payments system, to the benefit of all Australians.

Endnotes

[*] I would like to thank Robert Gao, Troy Gill, Kate Green, Joy Guo, Qiang Liu, Nicholas Prokhovnik and Ben Watson for their excellent assistance in preparing this speech.

[1] In this speech, 'debit cards' refers to cards processed over the eftpos, Visa or Mastercard debit networks, 'credit cards' refers to cards processed over the Visa or Mastercard credit networks, and 'charge cards' refers to cards processed over the American Express or Diners Club networks.

[2] There are a small number of cards in the Australian market where the fee on international transactions is waived. However, working in the other direction, some merchants offer to convert the foreign currency transaction amount to Australian dollars at the time of the transaction; if consumers choose this option rather than pay in foreign currency, they face additional 'dynamic currency conversion' fees, which can be around 1 per cent of the transaction amount, along with a higher exchange rate markup.

[3] Financial Stability Board (2023), 'G20 Roadmap for Enhancing Cross-border Payments: Consolidated progress report for 2023', 9 October.

[4] The report on LCR availability and take-up is available on the RBA website: RBA, 'Least-cost Routing of Debit Card Transactions'; RBA, 'Update on Availability and Enablement of Least-cost Routing for Merchants'.

[5] Dobie B and B Watson (2024), 'The Effect of Least-cost Routing on Merchant Payment Costs', RBA *Bulletin*, April.

[6] See RBA (2021), 'Review of Retail Payments Regulation', Conclusions Paper, October.

[7] See RBA (2024), 'Interlinking Fast Payment Systems for Cross-border Payments', April.