

26 August 2014

David Murray AO  
Chair, Financial System Inquiry  
GPO Box 89  
Sydney NSW 2001  
[fsi@fsi.gov.au](mailto:fsi@fsi.gov.au)

Dear Mr Murray

MasterCard submits these comments in response to the Financial System Inquiry (FSI) Interim Report.

We are grateful for this opportunity to provide additional input to the FSI. We would also like to commend the Inquiry's Panel and Secretariat at all levels for their accessibility and constructive dialogue throughout the process.

Through this submission MasterCard aims to:

- highlight the value of electronic payments to merchants, consumers and government as well as the cost of cash to Australian business;
- advocate regulatory settings which encourage electronic payments;
- respond directly to each of the Options outlined within the relevant components of the Interim Report; and
- make broader comments about important issues raised within the Interim Report.

We regard this FSI as a rare but vital opportunity to ensure Australian regulation promotes efficient payments which benefit the nation's productivity, by enabling market based price settings, and ensuring any regulation is applied in a competitively neutral way.

We would welcome further opportunities to engage with the FSI and Government more broadly in relation to this submission, or indeed about any other part of the Inquiry's deliberations.

Sincerely



**Eddie Grobler**  
Division President, Australasia

## Executive Summary

MasterCard welcomes the FSI and the historic opportunity it provides to establish optimal regulatory settings for the future of the payments sector. Encouraging electronic payments, to deliver a world with less cash would be unequivocally beneficial for consumers, merchants, government and the Australian economy.

MasterCard considers payments are best regulated by an open market, where free and fair competition drive investment and innovation. Regulation in the past decade has hampered these in Australia to the detriment of consumers and small and medium sized businesses, which have suffered unintended negative consequences from regulation. This FSI is an opportunity to both correct errors made along the way (specifically in removing competitive neutrality and allowing misuse of surcharging) and to build the right framework for the future of payments.

### Recommendations

1. That the FSI recommend regulatory settings that encourage the use of electronic payments over cash
2. That the FSI recommend the removal of payments regulation in Australia, and in particular the removal of interchange fee caps, in order to drive better outcomes for consumers, merchants, government and society.
3. In the event the FSI chooses not to remove payments regulation, that it does not lower or ban interchange.
4. To ensure competitive neutrality, the FSI should recommend the application of payments regulations to all payment providers that operate in Australia.
5. The FSI allow schemes to once again, ban surcharging.
6. In the event surcharge regulation remains, it should apply in a competitively neutral way to all payment providers.
7. That if the FSI retains surcharging regulation, that it bans surcharging for all payments made through 'regulated' schemes.
8. Alternatively, that if the FSI retains surcharging regulation, that it bans surcharging for all payments made online, as well as all payments made with debit products, and all transactions for "pre-authorised" services.

## The Cost of Cash and the Value of Electronic Payments

The FSI Interim Report viewed electronic payments primarily through the lens of the merchant, looking at issues largely from a cost perspective, without acknowledging the enormous value created. In that context it is worthwhile to also consider the cost of cash to both merchants and to society.

Whilst the use of cash has continued to decline as a share of all payments, cash remains the most common form of payment for day-to-day transactions in Australia<sup>1</sup>.

Some merchants incorrectly view the cost of accepting cash as low or even free (a series of studies have estimated the costs to merchants of accepting cash in Australia at over 2%<sup>2</sup>). However even a simple comparison shows that cash is significantly more expensive than the average cost of accepting MasterCard in Australia (0.83%<sup>3</sup>). We understand the RBA is currently undertaking a significant merchant survey in this area to establish the costs of various payment types in Australia, including cash and we look forward to the subsequent report.

In addition to merchant costs associated with cash, there are also costs to society more generally. A study by the Australia Institute has shown the costs of tax avoidance as a consequence of cash usage are up to \$5 billion per annum<sup>4</sup>. With the declining use of cheques in Australia, electronic payments represent the primary alternative to cash in modern society.

Putting cost to one side, it is instructive to consider the value of electronic payments relative to cash. Research shows electronic payments are more productive for society than cash with “the use of electronic payments yielding larger changes in GDP than cash transactions”<sup>5</sup>. Macro-economic studies from around the globe illustrate that the use of electronic transactions relative to cash and cheques has a positive impact on GDP. Electronic payments increase tax revenue for governments, and create efficiencies in infrastructure maintenance. They also impact on the lives of individuals by increasing the ability of governments to more effectively deliver social assistance and other services.

Electronic payments also create significant direct value to business. That value has multiple component parts, including the avoidable variable cost of cash acceptance, the margins on incremental sales which would not have been made without the option of electronic payments, the payment guarantee for credit and fraud losses, the prompt payment which is made directly into a business’s bank account, and the significantly reduced operational costs from a reduction in cash takings. Electronic payments enable faster, more secure and traceable transactions and have been a key element in promoting greater integration of the world economy. The growth of e-commerce and internet shopping would have been inconceivable without the introduction of electronic payments. Payment cards have reduced the impact of

<sup>1</sup> Reserve Bank of Australia (June 2014) *News Bulletin*

<sup>2</sup> For example, Pricewaterhouse Coopers, (June 2002), ‘*Cost to Businesses of Accepting Cash as a Means of Payment*’ and Edgar, Dunn and Company (July 2014), ‘*Illustrating the Value Provided by Electronic Payment Products*’

<sup>3</sup> Reserve Bank of Australia (March 2014) *Average Merchant Fees for Debit, Credit and Charge Cards* (average costs of accepting MasterCard and Visa cards)

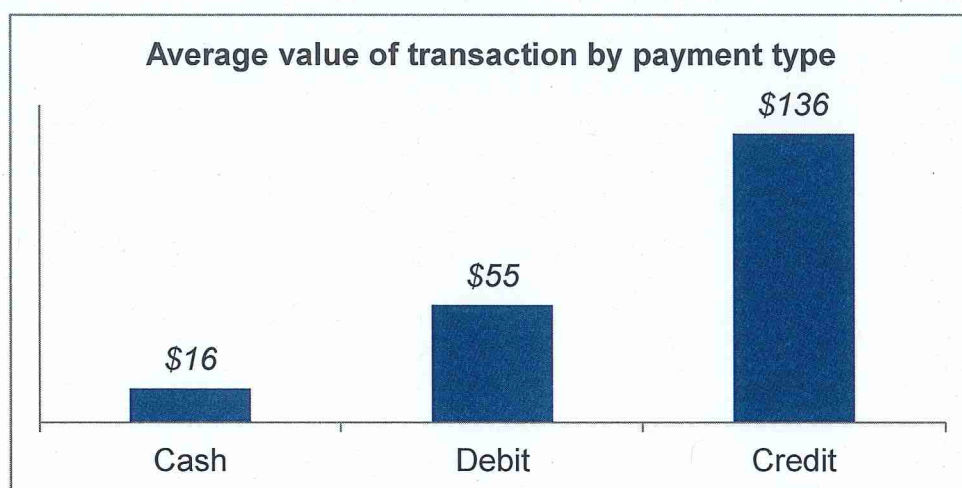
<sup>4</sup> Richardson, D. and Denniss, R., The Australia Institute (October 2012), *Cash-in-hand means less cash for states – the impact of tax evasion on public finances*

<sup>5</sup> University of Melbourne, Melbourne Institute of Applied Economic and Social Research (2013), ‘*E-Payments and Economic Activity in Australia*’, Summary Report

liquidity and other constraints which previously limited consumer purchases to the amount of money in a consumer's wallet. Both merchants and consumers have benefitted from sales which previously would not have been made if cash was the only option. Those sales have arisen primarily as a result of three factors:

1. Ticket lift: consumers are not limited by the amount of money in their wallet, or a need to travel to a bank or an ATM. They make short-term sales and special discounts more effective. In Australia average debit and credit transactions have been estimated to be between three and eight times larger, respectively, than cash purchases;
2. Faster throughput and greater safety: electronic payments allow businesses to process transactions faster than cash, while also reducing the need for physical security; and
3. Outsourcing of credit risk: credit cards allow merchants to pass on the costs and risks of offering their own credit facilities to financial institutions. This has enabled small businesses to grow and compete without having to run their own expensive credit operations<sup>6</sup>.

Figure 1<sup>7</sup>



Electronic payments also allow merchants access to a global customer base and facilitate an improved customer experience through the adoption of innovative sales, marketing and processing approaches. That quantifiable benefit was well illustrated over a decade ago when news reached the market that McDonald's restaurants had decided to accept payment cards in the United States, with the value of McDonald's shares increasing by 2.7 per cent<sup>8</sup>. (With the benefits of speed, security and consumer experience that PayPass contactless payments and other payments innovations have brought since this example, one could reasonably expect the value increase to be even greater with more modern technologies).

Electronic payments help societies to overcome barriers to traditional banking services, and to provide people with the advantages of greater financial inclusion. Electronic payments enable those with

<sup>6</sup> Zywicki, T., Manne, G., and Morris, J. (04 June 2014), 'Price Controls on Payment Card Interchange Fees: The U.S. Experience', International Centre for Law and Economics

<sup>7</sup> RBA data

<sup>8</sup> Ari Weinberg, *McDonald's Goes Plastic*, FORBES (25 March 2004) [http://www.forbes.com/2004/03/25/cx\\_aw\\_0325mcd.html](http://www.forbes.com/2004/03/25/cx_aw_0325mcd.html)

economic and social disadvantage to better navigate the consumer market. They create the ability to address many needs of financially underserved communities, improve financial literacy and understanding, diminish the reliance on alternative financial institutions such as same-day lenders which charge a premium for cash and services, and increase confidence in mainstream financial institutions.<sup>9</sup>

Unfortunately, avoiding surcharges is one of the primary reasons Australians still use cash<sup>10</sup>. This has the perverse public policy consequence that a higher cost, less safe and less efficient method of payment (cash) is prioritised over alternatives.

Issues around the costs and value of cash relative to electronic payments affect all parts of payment systems regulation in Australia. Given the evidence available, MasterCard recommends the FSI creates a guiding principle around this issue, to assist regulators when considering all forms of payment system regulation.

**Recommendation 1:**

That the FSI recommend regulatory settings which encourage the use of electronic payments over cash, as a result of the significant costs of cash to merchants and to society, and through the recognition that electronic payments contribute to the productivity of Australian society.

---

<sup>9</sup> Yeung, Shamsuddin and Thompson, Massachusetts Institute of Technology Community Strategies Lab (July 2014), *'The Technology to Advance Equal Financial Opportunity: How emerging electronic payment technology can provide financial services to underserved communities'*

<sup>10</sup> Reserve Bank of Australia (June 2014) *News Bulletin*

## Responses to Options outlined in the “Payments sector” component of the Competition Chapter

The following pages respond directly to each of the nine Options as outlined in the Payments component of the Interim Report’s Competition Section:

### 1) No Change to Current Arrangements; and

### 4) Remove Interchange fee caps

As outlined in MasterCard’s earlier submission to the FSI, there are two primary reasons why the current regulatory arrangements have not been successful:

1. Regulations have resulted in unintended detrimental consequences; and
2. Regulations do not apply in a competitively neutral way, and this has created advantages for some forms of payment at the expense of others.

**Existing regulations have resulted in unintended negative consequences.** There have been a number of negative outcomes for consumers and small and medium sized business as a result of the current regulatory arrangements.

- The reduction in interchange fees has considerably harmed consumers by causing higher cardholder fees (following interchange regulation, annual cardholder fees increased by 38% and 30% in 2003 and 2004 respectively<sup>11</sup>), while at the same time, no evidence exists that any reductions in Merchant Service Fees (MSF) have been passed through to consumers.
- Surcharge regulations have allowed some merchants to impose surcharges at levels that far outweigh costs. This use of surcharges to increase revenue rather than to recover costs (as was originally intended by the RBA regulation) has resulted in discrimination against those who choose to pay by certain types of card<sup>12</sup>.
- The regulatory intervention in the setting of interchange has essentially redistributed wealth in favour of some merchants – in particular large merchants. Small businesses have been negatively affected as a consequence. Small business owners often use electronic payment cards as consumers themselves, and so suffer the same consumer harm as outlined above.

**Existing regulations do not apply in a competitively neutral way, and have created loopholes which benefit some payment methods at the expense of others.** The current system of regulation is not competitively neutral. Rather than functioning in an objective and non-discriminatory manner based on the typical operating behaviours of payment systems, the current system relies on the RBA ‘designating’ payment systems. This approach has led to a ‘regulatory free ride’ for those participants not designated. Two notable examples are:

<sup>11</sup> Reserve Bank of Australia (May 2004) *Bulletin* and Reserve Bank of Australia (May 2005) *Bulletin*

<sup>12</sup> CRA International (April 2008) *Regulatory intervention in the payment card industry by the Reserve Bank of Australia*

1. Neither American Express nor Diners Club credit cards are interchange regulated, while both MasterCard and Visa credit cards are. This is despite American Express and Diners offering 'companion' cards issued by banks which behave as four-party cards; and
2. Newer payment providers, such as PayPal and China Union Pay, are not subject to surcharge regulations, whilst MasterCard and Visa are. This means merchants can be expressly prohibited from charging a surcharge when consumers pay through PayPal (i.e. PayPal makes it a condition of PayPal acceptance that no surcharge is applied<sup>13</sup>). However merchants are able, because of the uneven application of regulation, to charge a surcharge when consumers pay by MasterCard.

### **Removal of Interchange fee caps (Option 4 in the FSI Interim Report)**

For the reasons outlined above, and consistent with the philosophy that market competition drives better economic outcomes than direct regulation, MasterCard advocates for the removal of payments regulation in Australia, including the removal of interchange fee caps.

#### **Recommendation 2:**

That the FSI recommend the removal of payments regulation in Australia, and in particular the removal of interchange fee caps, in order to drive better outcomes for consumers, merchants, government and society.

## **2) Interchange Fees:**

- a. Lowering Interchange Fees; or
- b. Banning Interchange Fees

### **Lowering Interchange Fees**

As we've covered above, the imposition of weighted average caps on interchange has led to detrimental outcomes for both consumers and for the majority of businesses and so it follows that reducing interchange fees further would lead to more consumer detriment, as well as further negative impacts for many merchants.

Any additional adjustment to the current regulatory environment also creates uncertainty, which can remove incentives for payment systems and financial institutions to continue to innovate in the payments space. There is some experience from around the globe that demonstrates this and provides quantitative evidence of consumer impact.

- In the United States, reductions in interchange on debit transactions as a result of the Durbin Amendment to the Dodd-Frank Act, left consumers paying more in banking costs and with no reduction in retail prices. Analysis by University of Chicago Law School economists David S. Evans, Howard Chang, and Steven Joyce found merchants collectively gained \$7 billion yearly

<sup>13</sup> PayPal, (20 May 2014) 'User Agreement for PayPal Services' <https://www.paypal.com/au/webapps/mpp/ua/useragreement-full>

starting in 2011. At the same time, consumers began losing many money-saving banking benefits, (quantified at more than \$22 billion) as a result. The University of Chicago analysis showed capital markets anticipated that publicly traded retailers would retain billions of dollars in profits as a result of regulations that dramatically reduce debit-card interchange fees (and therefore MSF) in the United States. Also, the estimated present discounted value of the losses for consumers as a result of the implementation of the Durbin amendment is between \$22 and \$25 billion. The Chicago Law School Analysis explains that faulty economic theory assumed retailers would pass savings through to consumers<sup>14</sup>.

- Research on interchange regulation in Spain has also demonstrated the link between lowering interchange rates and consumer detriment. A gradual reduction in interchange fees by more than 55% between 2006 and 2010 actually led to an increase in Spanish consumer costs by 50% (€2.35 billion in absolute figures).<sup>15</sup> This report also showed the lowering of interchange rates “disturbed the necessary balance of the electronic payment system market and have damaged the majority of participants and society as a whole”. These arrangements also “altered the four-party system, [and favour] other less participatory systems and reduces incentives to innovate to improve the quality and safety of the service. In addition, it has also slowed the replacement of cash, which is more expensive and slower, less efficient and less transparent. This has benefitted the black economy, not income tax revenue or general welfare. As such, the main incentives to boost electronic payments as instruments of innovation, transparency and cost reduction, have suffered.”<sup>16</sup>

Many consumer groups globally have advocated against the lowering of interchange rates, because of the consumer detriment outlined above. In Europe for example a joint statement issued by six consumer groups in the United Kingdom stated that *‘Retailers benefit from the use of credit cards through higher sales, lower costs of cash transportation and for securing cash on the premises, fewer losses from the use of cash, more efficient income management and a guarantee that they will receive payment. It seems unfair that the burden of paying for this service should be shifted from retailers to consumers’*.<sup>17</sup>

MasterCard acknowledges the challenge of the regulatory model as it currently operates, and in particular the disparity between the costs some small business are now paying in MSF compared with large businesses<sup>18</sup>. We regard this as one of the unintended negative consequences of the current model.

Currently MasterCard is required to recalculate (reset) credit interchange to the weighted average every three years<sup>19</sup>. This significant time period creates an incentive for issuers to offer cards to consumers in a way which drivers average interchange up significantly during that three year period. At the conclusion of each three year period there is often a painful adjustment for issuers to make, but for the intervening three year period there can be significant commercial benefits for issuers.

<sup>14</sup> Evans, David S. and Chang, Howard H. and Joyce, Steven, (October 23, 2013) *‘The Impact of the U.S. Debit Card Interchange Fee Caps on Consumer Welfare: An Event Study Analysis’*. University of Chicago Coase-Sandor Institute for Law & Economics Research Paper No. 658

<sup>15</sup> Juan, Irazo and Pascual, Fernández and Gustavo, Matias and Manuel, Delgado (2012): *The effects of the mandatory decrease of interchange fees in Spain*. [http://mpira.ub.uni-muenchen.de/43097/1/MPRA\\_paper\\_43097.pdf](http://mpira.ub.uni-muenchen.de/43097/1/MPRA_paper_43097.pdf)

<sup>16</sup> *ibid*

<sup>17</sup> UK Consumer Groups, (2013) *‘Joint statement by consumer bodies expressing concerns about European Commission proposal to regulate interchange on card transactions’* <http://www.parliament.uk/documents/commons-committees/european-scrutiny/Consumer-bodies.pdf>

<sup>18</sup> Reserve Bank of Australia (2013), Payment Systems Board Annual Report 2013, p 24

<sup>19</sup> Reserve Bank of Australia, Guidance Note, *‘Implementation of the Standard on Interchange Fees’* <http://www.rba.gov.au/payments-system/reforms/cc-schemes/cc-fees-benchmark/guidance.html>

MasterCard considers there is a practical suggestion to address this issue. We would recommend resets of credit interchange occur on an annual, rather than a three yearly basis. This would materially impact the business case for issuers, and we consider it would keep average credit interchange much closer to the regulated weighted average cap of 0.50 basis points.

There are some alternatives to this suggestion which also have potential. For example, a reset every 18 months, or a reset within three months of any average credit interchange exceeding the 0.50 basis points cap by more than a certain percentage in any quarter of the year. We would welcome the opportunity to speak with the FSI about these alternatives.

MasterCard does not support banning interchange fees. The entire four party payments model is based on the premise that consumers receive enormous value from using electronic payments, as do merchants who accept them. In providing consumers with credit and debit cards, issuers incur costs, including the provision of credit facilities, investments in card and system innovations, and fraud losses. Interchange is the means through which issuers receive some return on those investments. Banning interchange fees would therefore materially impact the business case for issuers, and would detract from the public policy objective of moving society towards electronic payments – an objective which would bring consumer and merchant benefits, reduce the black or underground economy and materially contribute to national productivity.

In the same way that any reduction to interchange would distort the two-sided (consumer and merchant) payments model and lead to consumer detriment (as outlined above), if interchange was banned then the system would become completely unbalanced, and consumers would either be forced to pay for the entire costs of electronic payments (through even further increased fees and charges) or alternatively issuers would cease providing many consumers with credit and debit cards. A recent French study found that:

*[t]he economic model of the development of interbank payment platforms based on interchange has proved its worth, and continues to evolve under the natural pressure of the markets and advances in technology. Nothing suggests that the abolition or reduction of interchange fees would lead to any greater general well-being. If it is reasonable to assume that certain categories of merchants would benefit from them, it is just as reasonable to imagine that consumers, be they cardholders or not, would lose out. The arguments put forward to justify... the abolition of an economic development model are far from convincing.<sup>20</sup>*

**Recommendation 3:**

In the event the FSI chooses not to remove payments regulation, that it does not lower or ban interchange.

<sup>20</sup> Garelo, Pierre (04 November 2013), 'Understanding Multilateral Interchange Fees (MIF), and Why it Would Be a Mistake to Regulate Them', [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2349675](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2349675)

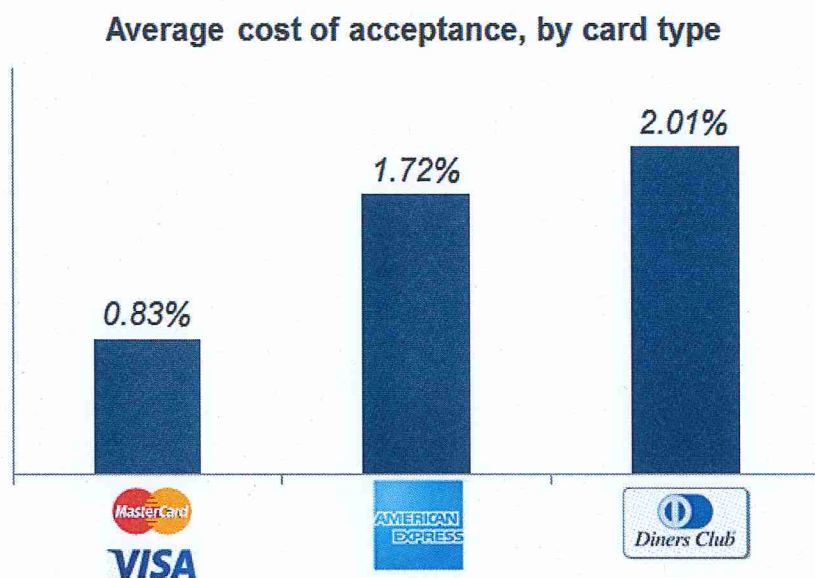
### 3) Expand Interchange fee caps to include payments of similar economic substance

As previously stated, should the FSI decide to continue regulation of payments in Australia, MasterCard believes the only way to deliver this in a consistent and fair way is to ensure that regulation applies in a competitively neutral manner to all payment companies, including American Express, Diners' Club and China Union Pay (in relation to interchange) and PayPal and China Union Pay (with respect to surcharging). As indicated earlier in this submission, the nature of the current regulatory environment, which applies to companies based on 'designation', means there has been significant regulatory free-riding in Australia.

Much of this topic was covered in MasterCard's previous submission to the FSI, but we'd like to again underline the importance of this issue. American Express's Global Network Services (GNS) cards (known as 'companion cards') have developed in a way which avoids Australian interchange regulation. The very existence of GNS cards in Australia is an unintended and negative consequence of the current regulatory environment, and its failure to apply equally to all payments systems.

On average, MSF charged by American Express to merchants are more than twice those charged for MasterCard payments. An interchange-like component from these higher MSF, which flows through to card issuers, is then used by issuers to fund greater reward points for consumers. Functionally, this part of American Express's business model now effectively operates as a four party scheme similar to MasterCard. American Express's GNS division has grown to represent more than 35 per cent of its cards globally<sup>21</sup>.

Figure 2:



22

<sup>21</sup> American Express Company, (2011), *2011 Annual Report*, p46

<sup>22</sup> Reserve Bank of Australia (March 2014) *Average Merchant Fees for Debit, Credit and Charge Cards*

Similarly, PayPal has been exempt from surcharge regulation. Despite having over 5.5 million active accounts, and over 100,000 merchant partners in Australia<sup>23</sup> and increasingly moving into the offline space, PayPal is not restricted from having a 'no surcharge' rule. Consequently, while MasterCard's MasterPass product is both price and surcharge regulated, PayPal is regulated on neither of these.

To achieve competitive neutrality in the payment system (and in the absence of the preferred complete removal of regulation), all participants in the payment system must be treated equally.

**Recommendation 4:**

To ensure competitive neutrality, the FSI recommends the application of payments regulations to all payment providers operating in Australia.

**5) Capping fees:**

- a. Cap merchant service fees; or**
- b. Cap differences in interchange fees between small and large merchants**

MasterCard believes that artificially capping the MSF which acquirers charge merchants would be an intrusive and interventionist approach, which would lead to the detriment of many parts of the payments value chain. The introduction of an MSF cap would be a form of price regulation which would:

- eliminate one of the most important elements of the competitive process for acquirers, i.e. their ability to freely negotiate the price of their acquiring services and compete with others on this vital item;
- lead to any potential cap in MSF becoming the default price across all acquirers and all merchants, which would increase the MSF costs for many merchants to the level of the cap (removing the strategic, product and industry price benefits which are currently part of the interchange model);
- lead to the removal or reduction in acquiring services for many smaller merchants. Those merchants which currently have higher MSF fees than whatever the designated MSF cap were to become, would become unprofitable for acquirers. This would likely lead to acquirers removing or reducing services provided to smaller, less profitable merchants; and
- deter acquirers from innovating. The capping process would materially change the business case for acquirers wishing to compete through more innovative, value-added services.

**6) Require acquirers to enable merchants to choose which scheme to route transactions through**

Some cards in Australia have what is referred to as 'combo-card' functionality. That is, the card can operate both as a credit card (when the credit button is pressed) and as access to some form of a deposit

<sup>23</sup> PayPal Inc., (2014) 'PayPal Australia Fast Facts' <https://www.paypal-media.com/au/about>

account (when either the CHQ or SAV buttons are pressed). While nothing today prohibits a merchant from force-routing a MasterCard transaction down a competing network, as a basic principle, MasterCard believes routing decisions should rest with cardholders. As well as being technically problematic and expensive to implement, any removal of that principle, would likely lead to poor consumer experiences. Allowing merchants to choose how a transaction routes has the very real potential to affect consumer choice and remove benefits received when using MasterCard's network, including MasterCard's Zero Liability consumer protections. There are some real examples here:

- Woolworths – in 2010 Woolworths decided to 'force route' scheme debit cards (including Debit MasterCard cards) through the eftpos scheme. There was industry and consumer backlash to this decision<sup>24</sup>, and Woolworths ultimately ceased their force-routing practices; and
- KleenMaid – in 2009 KleenMaid became insolvent in circumstances where many consumers had made upfront payments for goods which never arrived due to the insolvency. Similarly, Ansett Airlines became insolvent in 2001 in circumstances where many consumers had made upfront payments for flights which they weren't ever able to take. If a consumer had purchased KleenMaid kitchen appliances in advance using a scheme debit card (e.g. a MasterCard debit card), and the transaction was force-routed down an alternate network at the merchant's discretion, then those consumers would lose the consumer protections provided within MasterCard's Zero Liability policy. MasterCard anticipates that this could lead to significant, costly and widespread legal contest potentially involving all of the participants in the payment system.

MasterCard makes considerable investments in innovation, consumer protection, security, our acceptance network and brand. These investments help promote and improve electronic payments across the world, increasing positive consumer experiences while also driving commercial outcomes for our business. Merchants making routing decisions could result in other networks effectively 'free riding' off investments which MasterCard have made.

Rather than allowing merchants to force route transactions, merchants have the ability to determine which card brands (and whether credit and/or debit cards) they choose to accept. This solution is already in place, and is fair to both merchants and consumers.

## 7) Surcharging

- a. Allow payment schemes to reintroduce 'no surcharge' rules; or
- b. Broaden the ban on the 'no surcharge' rules to all payment systems

**MasterCard believes the reintroduction of rules banning surcharging would benefit consumers, government and the wider economy.** MasterCard has previously estimated that surcharging costs Australian consumers more than \$800 million per annum, but a recent Galaxy consumer survey of more than 2,000 Australian consumers has found that cost is likely to be significantly higher, at \$1.6 billion per

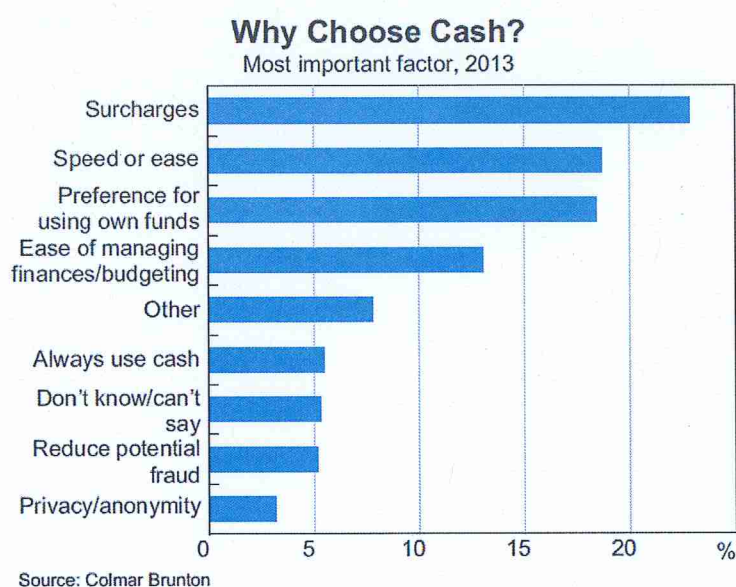
---

<sup>24</sup>Customer Owned Banking Association, (01 April 2010), 'Woolies denies customers payment choice', <http://www.customerownedbanking.asn.au/media-a-resources/media-release-alerts/641-woolies-denies-customers-payment-choice>

annum<sup>25</sup>. There is a real risk that if the surcharging issue is not resolved, that number could continue to increase.

Research shows that businesses are losing out when they charge for credit cards, with 41% of Australians reconsidering a purchase after seeing a surcharge, leading to decisions to either purchase elsewhere or not purchase at all<sup>26</sup>. Indeed, avoidance of surcharges is one of the primary reasons Australians still choose to pay with cash, as demonstrated by the chart in Figure 3.

Figure 3<sup>27</sup>



That said, with the prevalence of surcharging in many industries (e.g. airlines and utilities) the cardholder has little or no choice to avoid unreasonable surcharges. This is a major concern for consumers.

In Europe, cash has been identified as the 'most important enabler of the shadow economy' and governments have implemented strategies to increase the usage of electronic payments. Research suggests that increasing electronic payments by 10 per cent can lead to a decline in the size of the shadow economy by 5 per cent. To encourage electronic payments, 10 EU members 'banned surcharges on card payments during the implementation of the Payment Service Directive'.

With the cash economy costing Australian society upwards of \$5 billion per annum<sup>28</sup>, and with average costs to a merchant for accepting MasterCard payments less than the costs of accepting cash<sup>29</sup>, it would be

<sup>25</sup> Galaxy consumer survey (August 2014), commissioned by MasterCard

<sup>26</sup> *ibid*

<sup>27</sup> Reserve Bank of Australia (June 2014) *News Bulletin* (Graph 5, pg 45)

<sup>28</sup> Richardson, D. and Denniss, R., The Australia Institute (October 2012), *Cash-in-hand means less cash for states – the impact of tax evasion on public finances*

<sup>29</sup> Edgar, Dunn and Company (July 2014), *'Illustrating the Value Provided by Electronic Payment Products'* and Reserve Bank of Australia (March 2014) *Average Merchant Fees for Debit, Credit and Charge Cards* (average costs of accepting MasterCard and Visa cards)

a perverse public policy outcome to provide a platform that incentivises surcharging on a lower cost form of payment (electronic payments) rather than on a higher cost form of payment (cash).

Turning to the current regulatory environment, the two primary reasons the current ‘reasonableness’ test on surcharging (introduced in March 2013) has not been effective in lowering surcharges are:

1. There is ambiguity about what the word ‘reasonable’ means<sup>30</sup>; and
2. There has not been a government body or regulator charged with the responsibility for enforcing ‘unreasonable’ surcharges.

Allowing payment schemes to re-introduce the ‘no surcharge’ rule would solve both of these problems given the removal of ambiguity as to what constitutes “reasonable” and a simple view that surcharging – in all its forms – would be banned.

**The regulation preventing MasterCard (and others) from banning surcharging does not currently apply in a competitively neutral way to all payment systems and this has created a system of regulatory arbitrage, weakening the intended effects of regulation.** The disparity between those surcharge regulations which apply to MasterCard, Visa and American Express, but not apply to PayPal (or other new payments providers) gives new entrants an unfair advantage over regulated payment system providers. On any measure, PayPal and the like are now sizeable payments businesses in Australia, which compete directly against card schemes in both the online space and also increasingly at the point of sale. Other payment providers will also continue to enter both the card-present and card-not-present space in coming years, through a range of different means. Each of those new entrants should be subject to the same rules as existing providers to ensure that there is not an incentive for finding regulatory loopholes to operate outside of payments regulations.

MasterCard strongly supports a return to a complete ban on surcharging. However, if surcharge regulation is to remain then it should apply in a competitively neutral way to ensure there is a level playing field.

**Recommendation 5:**

The FSI allow schemes to once again, ban surcharging.

**Recommendation 6:**

In the event surcharge regulation remains, it should apply in a competitively neutral way to all payment providers.

**8) Enforce reasonable cost recovery in customer surcharging**

In the event that the FSI does not agree with the removal of surcharging, MasterCard suggests the following alternatives which could assist in the practical enforcement of surcharging. Each of these options aims to remove the ambiguity inherent in the current ‘reasonableness’ test, which is at the core of its enforcement limitations:

<sup>30</sup> This ambiguity remains, despite the RBA’s Guidance Note <http://www.rba.gov.au/payments-system/reforms/cards/201208-var-surcharging-stnds-draft-guidance/guidance-note.html>

- a. ***Allow surcharging only for payments made through 'unregulated' schemes.*** Schemes which are interchange regulated each have costs of acceptance which are lower than the costs of accepting cash. As a result, banning surcharges on interchange-regulated payments would send an appropriate price signal to consumers, but would still allow merchants to surcharge for those higher cost forms of payment. We believe schemes and acquirers could effectively enforce this option;
- b. ***Ban surcharging for online transactions.*** Online retailers are incentivised to offer a very low initial 'price', but then to add additional costs and charges at the conclusion of an online transaction, including surcharges. This issue is sometimes referred to as 'drip pricing', and is an area in which the ACCC is currently taking an active interest<sup>31</sup>. MasterCard estimates a total ban on surcharging online purchases would save Australian consumers up to \$1 billion per annum, would deal with the majority of sectors which currently charge unreasonably high surcharges, and would largely restore competitive neutrality with respect to PayPal. We believe schemes and acquirers, in collaboration with a government regulator, could participate effectively in the enforcement of this option;
- c. ***Ban surcharging on debit cards.*** Given the significantly lower interchange applicable to debit transactions, there is no justification for surcharges on these transactions. Despite this, many merchants continue to apply the same surcharges for scheme debit cards as they do for credit cards, which is not an accurate or appropriate price signal. MasterCard estimates that this option would save Australian consumers more than \$400 million per annum. We believe schemes and acquirers, in collaboration with a government regulator, could participate effectively in the enforcement of this option;
- d. ***Ban surcharging where transactions are 'pre-authorised'.*** Merchants that use electronic payments to "pre-authorise" a payment (for example, hotels and car hire businesses), remove the risks of non-payment after the service has been provided. There is even greater-than-usual value in these sectors to the point that the existence of cards has demonstrably changed the business models of these sectors. In these circumstances it seems unreasonable that a consumer should have to make an additional payment to the merchant by way of a surcharge, and so we would recommend this practice be removed.

These options are summarised in the following table:

---

<sup>31</sup> Australian Competition and Consumer Commission (19 June 2014) 'ACCC takes action against Jetstar and Virgin for drip pricing practices', <http://www.accc.gov.au/media-release/accc-takes-action-against-jetstar-and-virgin-for-drip-pricing-practices>

| Option  | Description  | Enforced by   | Pros   | Cons  |
|---|--|---|--|---|
| 1. No surcharging   | Reinstate the allowance of schemes' 'no surcharge' rules                     | Schemes and Banks   | <ul style="list-style-type: none"> <li>• Consumers would save more than \$1.6 billion p.a.</li> <li>• Consistent with card acceptance throughout most of the world</li> <li>• Competitive neutrality would be restored</li> <li>• Government resources would not be required for enforcement</li> </ul>                                      |   |
| 2. Surcharging only allowed for payments made through 'unregulated' schemes | Allow regulated schemes to ban surcharging                                   | Schemes and Banks   | <ul style="list-style-type: none"> <li>• Consumers using regulated scheme cards would have protection from all forms of surcharging</li> <li>• Merchants could still surcharge to recover the costs of accepting higher cost (unregulated) forms of payment</li> <li>• Government resources would not be required for enforcement</li> </ul> | <ul style="list-style-type: none"> <li>• There would be a period of adjustment where consumers and merchants adapted to this new environment</li> </ul>   |
| 3. Surcharging only allowed for 'Card Present' transactions                 | Surcharges banned for online payments  | Government regulator (with support from scheme rules and acquiring banks) | <ul style="list-style-type: none"> <li>• Consumers would save up to \$1 billion p.a.</li> <li>• A majority of offending segments (airlines, utilities and ticketing) would be included</li> <li>• Competitive neutrality would be largely restored</li> </ul>  | <ul style="list-style-type: none"> <li>• Segments such as hotels, restaurants and taxis would not be captured by this model</li> </ul>  |
| 4. Surcharging only allowed for credit transactions                         | Banning surcharges on debit and prepaid payments                             | Government regulator (with support from scheme rules and acquiring banks) | <ul style="list-style-type: none"> <li>• Consumers would save more than \$400 million p.a.</li> <li>• The average interchange for scheme debit cards is extremely low</li> </ul>   | <ul style="list-style-type: none"> <li>• Consumers would still be disadvantaged when paying by credit card, but at least there would be choice</li> </ul>   |
| 5. Surcharging only allowed for services which are not 'pre-authorised'     | Banning surcharges on "pre-authorised" service transactions                  | Government regulator (with support from scheme rules and acquiring banks) | <ul style="list-style-type: none"> <li>• Consumers would save funds in T&amp;E segments</li> </ul>   | <ul style="list-style-type: none"> <li>• Consumers would still be disadvantaged when using payment cards in other circumstances</li> </ul>  |
| 6. Combination of items 3, 4 and 5 above                                    | Banning surcharges on online, debit, prepaid and pre-authorised transactions | Government regulator (with support from scheme rules and acquiring banks) | <ul style="list-style-type: none"> <li>• Consumers would save more than \$1.4 billion p.a.</li> <li>• A majority of offending segments (airlines, utilities, ticketing and many hotels) would be included</li> <li>• Competitive neutrality would be largely restored</li> </ul>   | <ul style="list-style-type: none"> <li>• Key segments such as taxis and restaurants would not be captured by this model</li> <li>• Consumers would still be disadvantaged when paying by credit card in a card present environment</li> </ul> |

MasterCard would not be supportive of an arbitrary determination of 'reasonable'. Whilst it may seem attractive to cap a 'reasonable' surcharge at the MSF or at a set percentage (e.g. 1.5% of a transaction cost), we consider this option to be problematic as it would likely exacerbate surcharging, effectively providing a 'green light' to surcharge up to that cap, normalising it and making it even more widespread than it is today.

As outlined earlier, because accepting electronic payments is more valuable to merchants and society compared with cash, public policy settings should not incentivise merchants to add surcharges, which send inaccurate and inappropriate price signals to consumers, and incentivise the use of cash.

**Recommendation 7:**

That if the FSI retains surcharging regulation, that it bans surcharging for all payments made through 'regulated' schemes.

**Recommendation 8:**

Alternatively, that if the FSI retains surcharging regulation, that it bans surcharging for all payments made online, as well as all payments made with debit products, and all transactions for "pre-authorised" services.

**9) Provide merchants and customers with real-time pricing information regarding interchange fees and merchant service fees.**

MasterCard considers this option would be technologically very difficult (if not impossible) to implement, and would encourage further growth in the practice of surcharging. Most importantly, this option would lead to poor consumer experiences.

The FSI Interim Report references a submission by CSR which amongst other things advocated real time price information to merchants. This suggestion was designed to facilitate surcharging at the real cost of MSF for each transaction. We understand this business is priced on an 'interchange plus' basis whereas the majority of Australian businesses (and particularly small businesses) are subject to MSF pricing on a 'blended' basis. For those businesses using blended MSF rates, the issues raised in the CSR submission are not relevant. This option therefore seeks to 'solve' a problem which does not exist for most Australian merchants.

From a technology perspective, this option would be problematic and expensive for acquirers. We understand there would be enormous technology barriers and regulatory burdens placed upon acquirers under this option. These costs and burdens would be considerably out of proportion to the number of merchants concerned and affected by this issue.

As a matter of principle, MasterCard supports the notion that merchants should be provided with transparent and clear pricing information. MasterCard continues to publish all of its Australian domestic interchange rates at [http://www.mastercard.com.au/merchant/getting\\_started/interchange\\_rates.html](http://www.mastercard.com.au/merchant/getting_started/interchange_rates.html)

Interchange fees (paid from an acquirer to an issuer for each transaction) form one component of MSF charged by acquirers to merchants. MSF also include acquirers' margins and other costs. Unlike acquirers, MasterCard does not ordinarily have a direct contractual relationship with merchants, and is not privy to MSF costs charged by acquirers.

MasterCard understands this option would be designed to enable merchants to pass on the direct costs of each transaction to consumers through surcharges. As discussed earlier, this practice would ignore the fact that cash transactions are on average more expensive than most electronic payments, and would incentivise consumers to use cash over electronic payments. It would also mean that merchants would bear no costs at all for receiving a very valuable service (the ability to accept electronic payments), and would shift the costs for that value entirely onto consumers.

From a consumer perspective, this option would be very problematic. Having regard to sequencing, a merchant could not become aware of the precise cost of acceptance for a particular consumer transaction until after the consumer's card had been handed over. This is because there are over 330 different cards in the Australian market<sup>32</sup>, as well as industry and product categories which are relevant for each transaction.

MasterCard supports the principle that merchants should be required to display any surcharge up front, and in advance of any sale transaction process. The very nature of 'real-time' pricing information would mean that up front display of the size of the surcharge to consumers would not be possible, and would lead to consumer confusion, and to surcharge costs which would be both unexpected and unknown to the consumer prior to the moment of the sale.

If in order to determine a surcharge the merchant is relying on information it receives after the card has been handed over by the consumer, then the merchant itself could not be aware of the MSF cost prior to that point. Therefore there is no way the consumer could be made aware of the precise cost of a proposed surcharge prior to selecting their payment method.

In the same way that surcharges for online purchases are often considered to be a kind of 'drip-pricing', where consumers only become aware of the surcharge and/or the size of the surcharge after they have committed to make a purchase, this option could lead to a type of 'drip-pricing' in the card present environment. Consumers would only become aware of an additional surcharge cost after they have committed to a purchase and have handed over their card, in an environment where they are either unable or very unlikely to change their mind about the purchase.

This would be particularly problematic when making a contactless transaction, or when making an online payment, where the act of handing over the card or the card details is the final stage in the making of a payment. In both of these cases the addition of a surcharge after the merchant receives real-time information about the cost of that particular payment would amount to an additional transaction, for which the consumer could not be given the opportunity to consent.

A recent issue considered by ASIC looked at the non-disclosure of surcharges prior to payment, and highlighted some of these problems. ASIC stated that *'[f]or credit card payments where a PIN or signature is used, disclosure of the 0.5% surcharge is made on the credit card terminal screen after*

---

<sup>32</sup> Bank for International Settlements (September 2011), *Payment, Clearing and settlement systems in the CPSS countries*, Pg 19, <http://www.bis.org/publ/cpss97.pdf>

*customers insert or swipe their card to pay for their purchase. ASIC considered that this was too late, particularly in stores where there was no other disclosure'. ASIC also indicated that a failure to adequately disclose surcharges may be misleading or deceptive pursuant to the Australian Securities and Investments Commission Act 2001<sup>33</sup>.*

#### Other issues mentioned within the Interim Report

In addition to the specific issues and options raised in the payments section of the competition chapter, MasterCard also offers some general comments about other issues discussed in the Interim Report, particularly in relation to Regulatory Perimeters and Technology.

The Interim Report acknowledges the rapid pace of technological change, and the convergence of various product offerings, which are likely to significantly change the payments landscape. Technology will impact both existing providers as well as new entrants in the Australian payments sector. For example, the use of biotechnology, tokenisation and crypto-currencies all have the capacity to rapidly change both consumer and merchant behaviours. MasterCard also acknowledges the desire of the FSI to balance risks with innovation and competition.

MasterCard considers new entrants to the payments sector in Australia should be treated by regulation in a “functionally equivalent” and “technology neutral” manner. Any regulation should regulate “what” those businesses do rather than “who” they are. Regulation should be applied in an equal way to all, regardless of size or reference to thresholds. In this context, it would therefore be appropriate for regulation to move away from a ‘designation’ model, where particular payment service providers are named and regulated, while others are not.

As discussed earlier in this paper, during the period of payment system regulation in Australia, the designation model has failed to keep pace with several new entrants and new products. These organisations and products have escaped regulatory scrutiny, despite offering payment services which from the consumer and merchant perspective are either functionally equivalent or very similar to regulated products and services.

Earlier in this paper (and in our earlier submission) we detailed why we consider market forces, rather than regulation, provided the most appropriate structure for establishing price, investment levels and innovation. We also consider that any future regulation of payments should focus primarily on consumer and societal protections, including for new entrants. For example, crypto-currencies currently operate with minimal consumer protections (e.g. in relation to fraud and buyer protection) or societal protections (e.g. anti-money laundering and counter-terrorist financing).

We also note industry self-regulation has been very successful in Australia for many security issues across different technologies (e.g. Point of Sale devices, payment cards, phones, computers etc.). The “EMV” and “PCI DDS” global standards for “card present” and “card not present” environments respectively have been particularly effective. Both of these global standards are developed by independent

<sup>33</sup> Australian Securities and Investment Commission, (18 August 2014) ‘ASIC acts to ensure better disclosure by ALDI of credit card and contactless payment surcharges’, <http://www.asic.gov.au/asic/asic.nsf/byHeadline/14-204MR%20ASIC%20acts%20to%20ensure%20better%20disclosure%20by%20ALDI%20of%20credit%20card%20and%20contactless%20payment%20surcharges?opendocument>

industry bodies (EMVCo and the PCI Standards Council), and are continuously evolving to capture both existing and new technologies. MasterCard considers that government regulation in these areas is not necessary, given the effectiveness of these global standards.

Finally, in relation to regulatory scrutiny, MasterCard considers there should be a regular Consumer Impact Statement for payments regulation. This would ensure payments regulation does not focus too heavily on merchant impacts at the expense of consumer impacts. As outlined earlier it is clear that Australian payments regulation has had a detrimental impact on consumers. Creating this regular reporting obligation specifically around consumer impacts would ensure the consumer's perspective is front of mind when considering the impacts of both current and any future payments regulation.

## **Conclusion**

MasterCard sincerely thanks the FSI Chair, Panel and Secretariat staff for their deep engagement in the regulatory issues affecting the payments sector throughout this Inquiry. We encourage the FSI to take this historic opportunity to both address the inconsistencies in, and unintended detrimental consequences of, current payment system regulation in Australia. Regulation creates uncertainty and negatively impacts innovation.

We urge the FSI to encourage the increased use of electronic payments, a removal of regulation, or a more consistent application of it across the landscape, in a technologically and competitively neutral manner.

Any regulatory regime in the payments sector should also plan for the future, and the innovation, change and new entrants that will bring. The same principles of technological and competitive neutrality should apply, so that the "what" rather than the "who" is regulated, and therefore regulation applies in a consistent manner.

There is opportunity to protect consumers in a significant way through reform of the current regulations pertaining to surcharging, and we also encourage the FSI to make meaningful change in that regard.

The following summarises each of MasterCard's recommendations:

### **Recommendation 1:**

That the FSI recommend regulatory settings which encourage the use of electronic payments over cash, as a result of the significant costs of cash to merchants and to society, and through the recognition that electronic payments contribute to the productivity of Australian society.

### **Recommendation 2:**

That the FSI recommend the removal of payments regulation in Australia, and in particular the removal of interchange fee caps, in order to drive better outcomes for consumers, merchants, government and society.

**Recommendation 3:**

In the event the FSI chooses not to remove payments regulation, that it does not lower or ban interchange.

**Recommendation 4:**

To ensure competitive neutrality, the FSI recommends the application of payments regulations to all payment providers which operate in Australia.

**Recommendation 5:**

The FSI allow schemes to once again, ban surcharging.

**Recommendation 6:**

In the event surcharge regulation remains, it should apply in a competitively neutral way to all payment providers.

**Recommendation 7:**

That if the FSI retains surcharging regulation, that it bans surcharging for all payments made through 'regulated' schemes.

**Recommendation 8:**

Alternatively, that if the FSI retains surcharging regulation, that it bans surcharging for all payments made online, as well as all payments made with debit products, and all transactions for "pre-authorised" services.

## References / Bibliography

Australian Competition and Consumer Commission (19 June 2014) '*ACCC takes action against Jetstar and Virgin for drip pricing practices*', <http://www.accc.gov.au/media-release/accc-takes-action-against-jetstar-and-virgin-for-drip-pricing-practices>

Australian Securities and Investment Commission, (18 August 2014) '*ASIC acts to ensure better disclosure by ALDI of credit card and contactless payment surcharges*', <http://www.asic.gov.au/asic/asic.nsf/byHeadline/14-204MR%20ASIC%20acts%20to%20ensure%20better%20disclosure%20by%20ALDI%20of%20credit%20card%20and%20contactless%20payment%20surcharges?opendocument>

Bank for International Settlements (September 2011), Payment, Clearing and settlement systems in the CPSS countries, Pg 19, <http://www.bis.org/publ/cpss97.pdf>

CRA International (April 2008) '*Regulatory intervention in the payment card industry by the Reserve Bank of Australia*'

Customer Owned Banking Association, (01 April 2010), '*Woolies denies customers payment choice*', <http://www.customerownedbanking.asn.au/media-a-resources/media-release-alerts/641-woolies-denies-customers-payment-choice>

Edgar, Dunn and Company (July 2014), '*Illustrating the Value Provided by Electronic Payment Products*'

Evans, David S. and Chang, Howard H. and Joyce, Steven, (October 23, 2013) '*The Impact of the U.S. Debit Card Interchange Fee Caps on Consumer Welfare: An Event Study Analysis*'. University of Chicago Coase-Sandor Institute for Law & Economics Research Paper No. 658

Galaxy consumer survey (August 2014), commissioned by MasterCard

Garello, Pierre (04 November 2013), '*Understanding Multilateral Interchange Fees (MIF), and Why it Would Be a Mistake to Regulate Them*', [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2349675](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2349675)

Juan, Iranzo and Pascual, Fernández and Gustavo, Matías and Manuel, Delgado (2012): '*The effects of the mandatory decrease of interchange fees in Spain*' [http://mpra.ub.uni-muenchen.de/43097/1/MPRA\\_paper\\_43097.pdf](http://mpra.ub.uni-muenchen.de/43097/1/MPRA_paper_43097.pdf)

Schneider, F., Ph.D. (2011), '*The Shadow Economy in Europe, 2011: Using electronic payment systems to combat the shadow economy*' [https://0611a1cea36bd96a406ca9780714754bffebcc1f.googleusercontent.com/host/0B4\\_LqC4wQ4N7YzY1U1pNVDJ2bTg/2011/Economia%20neagra%20si%20gri%20in%20Europa%202011.PDF](https://0611a1cea36bd96a406ca9780714754bffebcc1f.googleusercontent.com/host/0B4_LqC4wQ4N7YzY1U1pNVDJ2bTg/2011/Economia%20neagra%20si%20gri%20in%20Europa%202011.PDF)

PayPal Australia Pty Limited, (20 May 2014) '*User Agreement for PayPal Services*', <https://www.paypal.com/au/webapps/mppp/ua/useragreement-full>

PayPal Inc., (2014) '*PayPal Australia Fast Facts*' <https://www.paypal-media.com/au/about>

Reserve Bank of Australia, Guidance Note, *'Implementation of the Standard on Interchange Fees'*  
<http://www.rba.gov.au/payments-system/reforms/cc-schemes/cc-fees-benchmark/guidance.html>

Reserve Bank of Australia (2013), *Payment Systems Board Annual Report 2013*

Reserve Bank of Australia (March 2014) *Average Merchant Fees for Debit, Credit and Charge Cards*

Reserve Bank of Australia (May 2004) *Bulletin*

Reserve Bank of Australia (May 2005) *Bulletin*

Reserve Bank of Australia (June 2014) *News Bulletin*

Reserve Bank of Australia, Guidance Note <http://www.rba.gov.au/payments-system/reforms/cards/201208-var-surcharging-stnds-draft-guidance/guidance-note.html>

Richardson, D. and Denniss, R., The Australia Institute (October 2012), *Cash-in-hand means less cash for states – the impact of tax evasion on public finances*

UK Consumer Groups, (2013) *'Joint statement by consumer bodies expressing concerns about European Commission proposal to regulate interchange on card transactions'*  
<http://www.parliament.uk/documents/commons-committees/european-scrutiny/Consumer-bodies.pdf>

University of Melbourne, Melbourne Institute of Applied Economic and Social Research (2013), *'E-Payments and Economic Activity in Australia'*, Summary Report

Weinberg, A., *McDonald's Goes Plastic*, FORBES (25 March 2004)  
[http://www.forbes.com/2004/03/25/cx\\_aw\\_0325mcd.html](http://www.forbes.com/2004/03/25/cx_aw_0325mcd.html)

Yeung, L.H., Shamsuddin, S., and Thompson, Dr J.P., Massachusetts Institute of Technology Community Strategies Lab (July 2014), *'The Technology to Advance Equal Financial Opportunity: How emerging electronic payment technology can provide financial services to underserved communities'*

Zywicki, T., Manne, G., and Morris, J. (04 June 2014), *'Price Controls on Payment Card Interchange Fees: The U.S. Experience'*, International Centre for Law and Economics