



**The Reserve Bank of Australia's Review of
Payment System Reforms:**

**Comments of Alan S. Frankel, Ph.D.
on Behalf of the Australian Merchant Payments Forum**

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1. Introduction

In May 2007, the Reserve Bank of Australia (“RBA”) described its planned 2007-2008 review of payment system reforms in Australia, and invited interested parties to make submissions for its consideration as part of that review.¹ I have been asked by the Australian Merchant Payments Forum to address economic issues relevant to the RBA’s review.²

I make the following main points:

- Interchange fees are not essential to the effective operation of card payment networks.
- Interchange fees are unlikely to achieve net efficiencies.
 - The claimed theoretical rationale for interchange fees is inconsistent with the manner in which interchange fees have been set.
 - Card schemes have incentives to enact rules which maintain high fees and prevent competition from eroding bank or scheme profits.
- Contrary to predictions that reducing interchange fees would cause a catastrophe, the RBA’s previous interchange fee reforms have benefited the public.
- The elimination of mandatory interchange fees is desirable. Should the RBA not eliminate interchange fees, a further reduction in interchange fees is desirable.
- Interchange fees distort payment choices. This inefficiency is illustrated most clearly by bank efforts to steer consumers to conduct scheme debit transactions rather than EFTPOS transactions. Elimination of interchange fees on all debit transactions would eliminate banks’ incentive to steer consumers towards more costly scheme debit transactions, and is therefore desirable. Elimination of all interchange fees would similarly eliminate the artificial incentive banks have to encourage consumers to make payment transactions

1. Reform of Australia’s Payments System: Issues for the 2007/08 Review (May 2007) (“Issues for the Review”).

2. I have written and spoken extensively on the nature of competition in retail payments systems markets and I have been invited to speak at a conference organized by the RBA in November 2007 concerning the effects of existing and possible reforms of card scheme rules. I attach my curriculum vitae as Appendix A.

using credit card networks instead of debit card networks or other payment methods.

- There is a danger that schemes might use network fees either as a backdoor method of retaining interchange fees (or maintaining them at a higher level), or that scheme fees will increase generally due to impediments to network competition and changes in the schemes' corporate forms. Relaxation of remaining scheme restrictions on merchants may help alleviate some of these concerns.
- The evidence does not support claims that three-party schemes are supplanting four-party schemes in the marketplace. Instead, three-party schemes have reduced their merchant fees as the four-party schemes' interchange fees and merchant service charges fell. The reductions in three-party card merchant fees have generated further benefits to the public. Additional reductions in three-party card fees are likely if interchange fees are reduced further or eliminated. In the event that three-party schemes begin to grow significantly at the expense of the four-party schemes, other policy options are available and could be considered.
- In general, the schemes should be required to show that any restrictions on merchants are, on balance, beneficial. There is a significant likelihood that such restrictions have the effect of limiting competition between card networks and intensifying the market power of those card networks.

2. Interchange Fees Are Not Essential to the Operation of Card Payment Networks

MasterCard and Visa contend that the interchange fee is an essential “balancing” device which overcomes a “chicken-egg problem” resulting from the existence of network externalities, and is therefore essential to the existence and operation of payment card networks. They have predicted dire consequences from the reduction or elimination of interchange fees in their card payment systems.

In fact, there is no persuasive evidence that interchange fees are essential, or that the way they are used in card payment systems generates efficiencies or benefits the public. Indeed, some four-party payment systems have long operated successfully without interchange fees.

In this section I review the principal conceptual defence of interchange fees, explain why that defence fails to establish that interchange fees achieve net benefits in

practice, and explain why merchants' interests – but not banks – are aligned with those of the public with respect to the setting of any interchange fee.

2.1 The “Death Spiral”

The card schemes often claim interchange fees are necessary to overcome the effects of a “chicken-egg” problem in which it is difficult to get both cardholders and merchants “on board” the system. Such claims are vague and unconnected to any methodology for computing an allegedly optimal interchange fee.

According to MasterCard, “Setting interchange rates is a challenging proposition that involves an extremely delicate balance.”³ In a submission to the RBA, MasterCard describes a knife-edge equilibrium – an unstable situation in which even slight deviations in either direction from the optimal interchange fees (which MasterCard apparently contends it both identified and used as the basis for its actual fees prior to RBA intervention) could lead to catastrophic results for the card system.⁴

For example, if interchange fees are set “too low:”

To compensate for an interchange fee that is set too low, issuers may then need to resort to raising annual fees and other charges to cardholders. This will deter the growth of the cardholder network as consumers, in deciding which payment system to join, tend to be very price sensitive in their decision making. Thus, a relatively small increase in fees to the cardholders could cause a significant drop in cardholder membership. A smaller cardholder membership in turn

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3. See, http://www.mastercard.com/us/merchant/how_works/interchange_rates.html. Identical language appears in, “Credit Card Interchange Rates: Antitrust Concerns?” Testimony Of Joshua Peirez Group Executive, Global Public Policy & Associate General Counsel MasterCard Worldwide Before the United States Senate Committee on the Judiciary, July 19, 2006, http://judiciary.senate.gov/testimony.cfm?id=1999&wit_id=5589.
 4. In its 2001 submission to the RBA, MasterCard argued that if interchange fees are set “too high,” banks and merchants will rely on what it claims would be less efficient, “on-us” processing of card transactions and “closed system” three-party card networks. MasterCard June 2001 Submission, pp. 7-8. If, on the other hand, interchange fees are set “too low,” MasterCard *also* claimed banks and merchants would also rely on “on-us” card processing and “more socially costly and less efficient three-party system” in which smaller issuers and acquirers would be “squeezed out.” MasterCard Incorporated Submission to Reserve Bank of Australia, June 8, 2001 (as Revised July 20, 2001), p. 11.

would make acquiring merchants more difficult as the benefits that the system can deliver to the merchants in terms of potential shoppers holding cards have now diminished.

A self-reinforcing cycle could be set in motion that could eventually lead to the whole open system unravelling: interchange fees set too low, leading to issuers charging higher fees to cardholders, leading to diminishing cardholders network, leading to fewer merchants acquired, leading to the need to further lowering of the interchange fee, and so on. This could be characterized as a “**death spiral**” process.⁵

MasterCard acknowledged in 2001 that “There is as yet no empirical data to illustrate the ‘death spiral’ in action, since in no market anywhere has any four-party open system been forced to arbitrarily lower its interchange fee by regulatory decree. The conceptual principles, however, are not in doubt.”⁶

What if the RBA were to eliminate the interchange fee altogether, as it suggests in its May 2007 Issues for the Review?⁷ MasterCard, as just cited, claimed that *any* reduction in interchange fee threatened the existence of its card scheme. Consistent with this position, it has argued that interchange fees more generally are essential to the existence of four-party card payment schemes.⁸

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5. MasterCard Incorporated Submission to Reserve Bank of Australia, June 8, 2001 (as Revised July 20, 2001), pp. 10-11 (emphasis in original, footnote omitted).
 6. *Id.*, p. 12. As I discuss in Section 4 below, there was no death spiral when the RBA significantly and abruptly reduced the level of MasterCard’s and Visa’s interchange fees. Interchange fee reductions have also occurred in Spain, Mexico and for some transactions in the European Union, with no reports of death spirals. See, e.g., James M. Lyon, “The Interchange Fee Debate: Issues and Economics: Merchants are seeking relief from rising credit card fees, but the economics are complex and near-term resolution seems unlikely,” Federal Reserve Bank of Minneapolis (June 2006); Visa Inc. SEC Form S-4 (June 22, 2007), pp. 9, 147.
 7. Issues for the Review, paragraph 131 (“One uniform approach would be to set all interchange fees to zero. Accordingly, the Bank is seeking views on the merits of this approach, including views on the range of payment systems for which zero interchange fees might be appropriate. Submissions on this issue might wish to outline what the case is for ongoing interchange fees as payment systems mature and use and acceptance becomes widespread.”)
 8. See, e.g., Statement by MasterCard General Counsel Noah J. Hanft on Merchants Interchange Lawsuit, MasterCard press release, June 23, 2005 (“...MasterCard looks forward to defending interchange, which is necessary for the operation of a four-party system...”); MasterCard General Counsel Noah Hanft, “Let’s Get Real,” in Interchange Fees in Credit and Debit Card Industries: What Role for Public Authorities?, Federal

Visa similarly contends “The interchange fee is an essential financial adjustment...”⁹ Visa echoed MasterCard’s warning of a potential death spiral:

[I]nterchange fees would still be necessary [in a mature network] to ensure that cardholders did not exit a network and, in so doing, cause merchants to exit the network, as a result of the reduced number of potential customers (in turn, a smaller merchant base could cause more cardholders to leave the network and so on in a vicious circle).¹⁰

2.2 Network Externalities

The death spiral warning is essentially a claim of the existence of an extreme form of network externalities in the credit card schemes, in which the value of the network to its customers will collapse if the interchange fee subsidy is even slightly reduced. But network externalities, if any, are unlikely still to be significant in a mature credit card market like Australia in which cards have been widely adopted by consumers and are widely accepted by merchants. There is no basis to expect that credit cards would disappear without the subsidy to issuers generated by interchange

Reserve Bank of Kansas City (2005), p. 206 (“Interchange is essential to four-party systems and cannot be analyzed as a fragment isolated from the whole.”); MasterCard Inc. SEC Form S-1/A (December 6, 2005), p. 97 (“[T]he cross-border MIF [multilateral interchange fee] constitutes an essential element of MasterCard Europe’s operations...” “the MIF constitutes an essential element of MasterCard’s U.K. operations”).

9. Visa International, “Credit Card Schemes in Australia: RBA’s Proposal for Reform, A Big Step Backwards,” (May 2002), p. 12; see also letter of 7 April 2005 to John Veale, Head of Payments Policy, Reserve Bank of Australia from Bruce Mansfield, General Manager, Australia & New Zealand, Visa International (“Visa International views interchange as an essential mechanism for balancing the costs and revenues of the issuing and acquiring sides of the payment network.”).
10. Visa International Service Association (Prepared by: Network Economics Consulting Group Pty Limited), Response to the Reserve Bank of Australia’s Consultation Document and Report of Professor Michael Katz, (March 2002), pp. 10-11.
In a “fact sheet” posted on its Australia web site, Visa similarly states, “Interchange is an essential mechanism for balancing the costs and revenues of the issuing and acquiring sides of the payment network.” “Guide to Visa Australia, Fact Sheet 10,” http://www.visa-asia.com/ap/au/mediacenter/factsheets/includes/uploads/Guide_to_Visa_Australia.pdf.

fees, or that merchants currently accepting credit cards despite paying interchange fees would refuse to do so if the price for card services *fell* dramatically.

Card network externalities are often described as cardholders benefiting when more merchants accept cards, and merchants benefiting when more cardholders carry cards. At current prices, however, merchants do not benefit from additional credit card use. They would prefer that customers use a different, less expensive payment method – but they may have less ability to resist accepting cards as cardholder preferences to use cards are intensified through the use of interchange fees.

At most, this network externality argument is a claim that an indirect network effect exists: a cardholder benefits from other cardholders because their preference to use cards induces more merchants to accept cards. But the same could be said for virtually all goods and services sold by those merchants, because the existence of other consumers who share one’s preferences makes the desired products and services more readily available in the marketplace. This is not reason enough to permit industry “self-regulation” of prices.¹¹

There has been a debate in Australia over whether the credit card market is “mature” and whether network externalities persist in mature markets. Even networks and their consultants characterize the credit card market as mature in developed countries like Australia.¹² They argue, however, that externalities persist even if the

11. Bruce Mansfield, General Manager, Australia & New Zealand, Visa International, “Regulatory change and market leadership,” Address To Cards Australia Conference, Sydney, 17 August 2005 (“Let me say up front that I am a firm believer in self-regulation. So is Visa...”).

12. Visa’s consultant NECG deems Australia a “relatively mature” credit card market in which “the importance of these [network] externalities may be difficult to quantify...” Network Economics Consulting Group, “Early evidence of the impact of Reserve Bank of Australia regulation of open credit card schemes: Is the market responding as the RBA predicted?” Prepared for VISA International, May 2005, p. 22. The President & CEO of Visa International, Asia Pacific acknowledges that “Australia is a relatively mature market.” Rupert Keeley presentation, “Opportunities and Challenges in the Global and

market can fairly be characterized as mature. The confusion stems from the possible existence of multiple types of externalities. It is generally accepted that network externalities decrease as these networks grow:

- According to Visa consultant Jean-Charles Rochet, “Payment card networks are also characterized by a more classical network externality... This network externality becomes less and less important as the network matures, when virtually all potential users have joined.”¹³
- Visa consultants Evans and Schmalensee write:

[A]s the market became more saturated, the net benefits of adding new members decreased.¹⁴

In 1985, faced with a saturated [U.S.] payment card market, both Visa and MasterCard began allowing new affinity programs.¹⁵

Just as economies of scale or scope can be exhausted at some level of firm size or output diversity, the magnitude of network externalities can decrease as a network grows and can reach zero at some point... [W]here national coverage of a joint venture is valuable, as in payment systems, attainment of such coverage may exhaust network economies. The natural limits on network externalities together with product differentiation explain why multiple networks can survive in the same industry. Payment cards illustrate this...¹⁶

Instead, these Visa consultants point to the persistence of a claimed usage externality – merchant benefits from card acceptance – not directly related to network externalities. I discuss the claimed usage externality separately in Section 3.

Australian Payment Systems,” Australian Payments System Conference, 14 March 2006, p. 2.

13. See, e.g., Jean-Charles Rochet, *The Theory of Interchange Fees: A Synthesis of Recent Contributions*, 2 Rev. Network Econ. 97 (2003), p. 98.

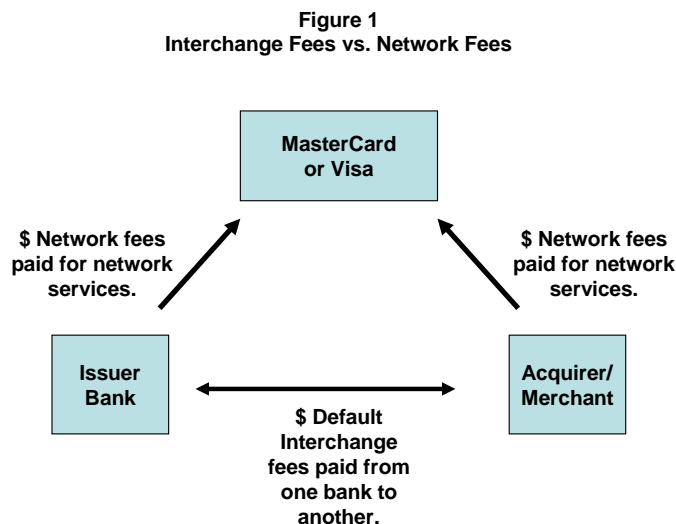
14. Evans & Schmalensee, *Paying With Plastic* (1st Ed., 1999), p. 68 (emphasis added).

15. Evans & Schmalensee, *The Economics of the Payment Card Industry* (NERA, 1993), p. 33-34 (emphasis added).

16. Evans & Schmalensee, *Paying With Plastic* (1st Ed., 1999), p. 153 (emphasis added). Others have made the same point. See, e.g., Stan Sienkiewicz, *Credit Cards and Payment Efficiency* (August 2001), describing Federal Reserve workshop comments by Dr. David Humphrey. (“But as more and more merchants have been added, the benefit of adding even more merchants becomes smaller. Most consumers find that their favorite merchants are already members of the network. In this respect, credit cards may be seen as a mature payment instrument in many countries (e.g., the U.S.).”)

2.3 Claims That Centrally Fixed Interchange Fees Are Essential Rely on the Assumed Existence of Other Competitive Restrictions

The networks and their consultants often claim that a centrally set default interchange fee is essential, because otherwise, they contend, a “hold-up” problem will occur in which each individual card issuing bank will have market power over every acquirer and its merchant customers.¹⁷ The logic of this argument rests on an unstated assumption that the network continues to have a default rule requiring each acquirer to remit interchange fees to every issuer as a condition of allowing a merchant to accept credit card transactions. (Figure 1)



17. *See, e.g.*, testimony of Timothy J. Muris before The United States House Of Representatives, Committee On Energy And Commerce, Subcommittee On Commerce, Trade, And Consumer Protection, “The Law And Economics Of Interchange Fees,” February 15, 2006, p. 12 (“A system-wide fee avoids the cost of a hold-up that could occur in that situation [of no fixed interchange fee]. Without the set fee, individual issuers could demand higher interchange fees if there were bilateral negotiations every time a card transaction was presented. And because of the need to honor all the cards, acquirers could not respond by refusing to accept cards from certain issuers.”)

MasterCard and Visa distinguish network fees, which they collect as revenue for themselves, from interchange fees which, in MasterCard and Visa card transactions, are remitted by the acquirer bank (and funded by its merchant client) to the card-issuing bank. Member banks which issue cards or acquire merchant transactions obtain network services from MasterCard or Visa, and these banks pay transaction, membership and other fees to the network. As a condition of participation in the network, however, each acquirer must agree to remit the “default” interchange fee from each of its merchants’ transactions – where the default is set by the scheme – unless the issuer and acquirer, on behalf of its merchant, bilaterally agree to different interchange fee terms.

The networks also enforce “honour all cards rules.” There are two main aspects of these rules – an “all products” aspect and an “all issuers” aspect. The all-products aspect originally meant that a merchant which agreed to accept Visa-branded cards had to accept any type of card carrying the Visa brand; the merchant could not, for example, choose only to accept Visa-branded consumer credit cards but not Visa-branded debit cards or Visa commercial credit cards. A merchant also could not elect to accept only standard Visa credit cards for which Visa charges one interchange fee, but not also accept Visa premium credit cards for which Visa has established higher interchange fees. MasterCard has similar rules. In at least some regions, as a result of litigation settlement (in the U.S.) or regulatory intervention (Australia), MasterCard and Visa have relaxed their honour all cards rules to the extent that a merchant may choose whether to accept all debit cards or all credit cards separately.¹⁸ Merchants still may not impose any other limitations on which types of credit cards or debit cards of that brand that it accepts.

18. http://www.rba.gov.au/MediaReleases/2006/Pdf/honour_all_cards_standard.pdf.

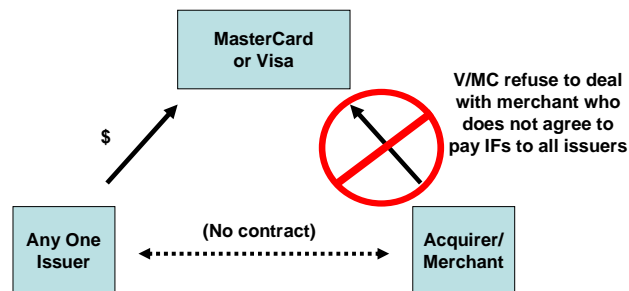
The all-issuers aspect of the network rules requires a merchant which accepts Visa or MasterCard cards to accept all such branded cards irrespective of the identity of the bank which issued the card.

The schemes' explanation why they need to have a mandatory default interchange fee depends critically on the existence of their honour all cards rules. They reason that if there was no default interchange fee imposed centrally by the scheme, then, because a merchant would be required by the honour all cards rule to accept cards from all issuer, there would be a "hold-up problem:" every issuer, no matter how small, would have enormous leverage – indeed, the market power of the entire network – over each merchant.¹⁹

The problem with this argument is that there is a critical, but unstated, additional rule, which can be described as the scheme's refusal to deal – that is, its refusal to offer authorization, clearing and settlement network services, for a merchant's transactions unless that merchant (through its acquirer bank) pays interchange fees to every one of the scheme's card issuing banks. There is, in fact, a "pay interchange to all" rule in addition to the "honour all cards" rule, which together create the very hold-up problem which the schemes then claim requires centrally fixed default interchange fees to solve. (Figure 2)

19. This argument is described in more detail in Alan S. Frankel and Allan L. Shampine, *The Economic Effects of Interchange Fees*, 73 *Antitrust Law Journal* 627 (2006). The argument itself can be found in a variety of articles and submissions by the schemes or their consultants, beginning with William F. Baxter, *Bank Interchange of Transactional Paper: Legal and Economic Perspectives*, 26 *J.L. Econ.* 541 (1983), p. 576-77, and Testimony of William Baxter before the United States Federal Trade Commission, *Hearings On Global And Innovation-Based Competition*, Docket No.:P951201 (November 30, 1995,) p. 3703 (“[T]he critical factor to understanding interchange fees is to understand that each bank has an incentive to overcharge. Once it gets its hands on the merchant paper, there's no other source; it has an enormous incentive to overcharge. And the interchange fee is a ceiling. It is a horizontal price-fixing agreement in a sense; but it's a horizontal price fixing agreement about maximum prices, not about minimum prices.”).

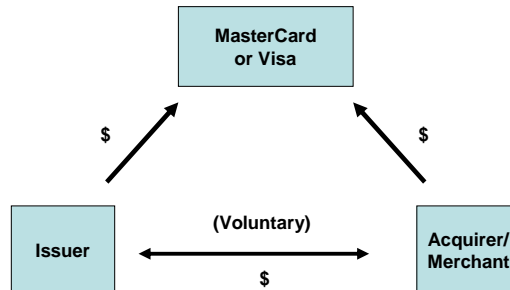
Figure 2
The Implicit "Pay Interchange to All" Rule



The peculiarity of the schemes' argument becomes apparent when one thinks about the contractual arrangements. The acquiring bank has a relationship with the network. The issuing bank has a relationship with the network. Both the acquiring and issuing bank pay the network for its services in the form of network fees. However, the network requires that the acquiring bank, as a condition of being a customer of the network, make side payments to all other member banks in connection with its merchant's transactions. Most companies would regard a request to make such side payments as very peculiar (and might refer the request to their antitrust counsel). The schemes could instead limit themselves to supplying network services and charging network fees to their customer banks, leaving it to individual merchants and issuers to determine, through mutually voluntary negotiations, whether and how much they might compensate one another through an interchange fee.

(Figure 3)

Figure 3
Voluntary Bilateral Interchange Fees
(Par Default)



As I will explain in the next section, many interbank payment systems operate or have operated “at par,” meaning transactions are settled between the merchant’s bank and the consumer’s bank at the full transaction price; it is then left to each of the two banks to charge fees, if any, to their respective customers, according to the terms of their respective account plans, which can be determined through free and open competition among banks.

The schemes and their consultants frequently argue that a par default system is entirely arbitrary and represents no less of a fixed price – a “price fixed at zero” – than any other interchange fee Visa or MasterCard might choose to impose. This is incorrect. A par collection arrangement eliminates any rule requiring that an interchange fee be paid as a condition of a merchant’s transactions being authorized, cleared and settled by the network. Only if individual members and merchants find it mutually advantageous will they enter into separate side contracts which might involve the payment of an interchange fee. Under a default par settlement policy, the scheme would not refuse to deal with a merchant or issuer merely because that

merchant or issuer has failed to enter into a comprehensive web of contracts requiring the payment of interchange fees with every other network participant on the other side of transactions. The scheme would not be fixing prices, but *declining* to fix prices.

Whatever one's views concerning the honour all cards rules, it is important to recognize that the arguments in defence of a fixed default interchange fee depend critically both on the existence of the honour all cards rule and an implicit pay-interchange-to-all rule, which, operating together, would give even the smallest issuing bank the market power of a monopoly issuer absent a default fee fixed below the monopoly level. Eliminating the pay-interchange-to-all rule would eliminate the claimed rationale for the fixed interchange fee, so the real issue is whether a system of universal interchange fees achieves net benefits for the public.

2.4 Payment Systems Operate Successfully Without Interchange Fees

There are very successful payment systems which settle at par – that is, without payment of an interchange fee.

2.4.1 Paper Based Payments Have Long Settled Without Any Interchange Fee

In a 1998 article, I reviewed the history of interbank clearing and settlement of private currencies and checks in the United States. I found that the existence of interchange fees in these payment systems always reflected the exercise of monopoly power, either by banks in towns isolated from any competitors, or by city banks using their local clearinghouse joint ventures as cartels to exercise monopoly power over the redemption of payments presented by banks located in distant cities.²⁰ When network competition worked effectively, banks had to abandon their interchange fees and they remitted currency and check payments at par. They nonetheless continued to offer

20. Alan S. Frankel, Monopoly and Competition in the Supply and Exchange of Money, 66 Antitrust Law Journal 313 (1998).

these payment services because their customers valued making and receiving payments, and were therefore willing to pay fees or maintain deposit balances (or other account relationships) which generated revenue for the banks to cover the cost of providing the payment services.²¹

2.4.2 Debit Card Schemes Operate Successfully Without Any Interchange Fee

Debit card transactions function much like electronic checks; indeed, in the United States, Visa calls its debit card the “Visa Check Card.” There are two principal debit technologies (aside from pre-paid stored value cards). The MasterCard and Visa schemes built their debit card networks to settle debit transactions using their credit card infrastructure, and so in Australia and the United States rely on signature verification. EFTPOS transactions, like ATM transactions, are authorized by the customer’s entry of a personal identification number (PIN), and tend therefore to be less risky than offline debit.

There are numerous examples of debit networks operating at par, without the payment of interchange fees to (or from) issuing banks:

- Early online PIN debit networks in the United States tended to operate at par. As recounted by Lloyd Constantine, lead plaintiff attorney in the U.S. litigation which challenged the schemes’ honour all cards rules as applied to their credit and debit cards,

21. Visa consultants Howard Chang and David Evans argue that this result occurred because of what they consider an arbitrary common law legal rule requiring payment at par when paper payments were presented directly to the issuing bank (rather than through the mail). Howard Chang & David Evans, *The Competitive Effects of the Collective Setting of Interchange Fees by Payment Card Systems*, 45 *Antitrust Bull.* 641 (2000). It is likely, however, that the common law practice itself resulted from competition in early banking markets. But the reason for the underlying par rule is less relevant for present purposes than the results: par settlement in paper based payment systems continued to work effectively, and all banks continued to offer payment services even after their interchange fees were eliminated by competition or by law. Chang and Evans apparently would endorse a bank association imposing universal default interchange fees on the settlement of checks, despite the lack of any evidence that such a scheme would benefit the public and the likelihood that it would not.

By the early 1990s, some 15 years after on-line PIN debit and off-line Visa/MasterCard signature debit were created by U.S. ingenuity, PIN debit was dominant. PIN debit transactions cleared at-par, except in the few regional networks that were paying merchants a per-transaction fee to accept debit transactions (as is still the case in Australia). Virtually everyone in the industry, including Visa and MasterCard themselves, predicted that at-par PIN debit would not merely continue to dominate, but would eliminate the slower, fraud-prone, and much costlier signature debit system. MasterCard's CEO, Pete Hart, frequently and publicly stated this.²²

Visa acquired the largest U.S. online debit network, Interlink, which had been operating at par, and instituted an interchange fee on Interlink debit transactions. Interlink in recent years has led an escalation of interchange fees among U.S. online debit networks.²³

- In Canada, the Interac Direct Payment PIN debit network has for a number of years been the leading payment system in Canada, despite the fact that “there is no interchange fee in the *Interac* Direct Payment service.”²⁴
- According to the European Commission, a number of national debit systems in Europe, including those in the Netherlands, Finland, Denmark, and Luxembourg, operate with par settlement.²⁵ I understand that most debit transactions in Germany also settle at par.
- In New Zealand, many EFTPOS debit transactions apparently settle at par, yet “Transactions passing through these systems are estimated to account for around 60% of retail turnover.” *Visa* debit transactions in New Zealand use the EFTPOS infrastructure, and also settle at par.²⁶

22. Lloyd Constantine, The Need for Federal Reserve and Antitrust Intervention in the Failed U.S. Debit and Credit Card Markets, in *Interchange Fees in Credit and Debit Card Industries, What Role for Public Authorities?*, Federal Reserve Bank of Kansas City (2005), pp. 159-60.

23. Fumiko Hayashi, Richard J. Sullivan, and Stuart E. Weiner, *A Guide to the ATM and Debit Card Industry: 2006 Update*, Federal Reserve Bank of Kansas City (2006), p. 12.

24. Interac Association, *A Backgrounder*, Sep. 2000, p. 8.

25. European Commission, Competition DG, Financial Services (Banking And Insurance), *Interim Report I: Payment Cards, Sector Inquiry On Retail Banking, Under Article 17 Regulation 1/2003*, 12 April 2006, p. 26 (“[B]anks [in these four countries] cooperate in payment card systems without charging one another interchange fees for POS transactions.”).

26. Reserve Bank of New Zealand, *Payment And Settlement Systems In New Zealand*, Updated September 2003, p. 13; <http://www.visa-asia.com/ap/nz/merchants/gettingstarted/interchange.shtml>.

2.4.3 Credit Card Schemes Can Operate Without Any Interchange Fee

There is nothing fundamentally different about credit card networks that makes it impossible for them to settle transactions between banks at par like the above described check and debit card systems. In fact, many consumers use credit cards for purely transactional purposes, rather than as a means to finance spending.²⁷

Yet, Australian banks – which have advocated a par (or “zero interchange”) system for EFTPOS transactions, contend that interchange fees are essential in the scheme credit card networks:

There is no inconsistency between having interchange fees set at zero for EFTPOS transactions co-existing with positive interchange fees for credit card transactions. The large imbalance in the costs of credit card issuers and acquirers means that credit card interchange fees are required to support the existence of the credit card network. Without such interchange fees, credit card networks could not exist.²⁸

If indeed there are significantly greater costs to conduct a payment transaction using the Visa credit card network than the identical transaction using the EFTPOS network, then the RBA’s concerns about over-use of the more costly payment system due to interchange are justified.

The schemes and their consultants often concede that credit card networks could exist without interchange fees. Instead, they argue that elimination of interchange fees will be *inefficient*.

- Visa consultants David Evans and Richard Schmalensee write that “Visa probably would have survived with a zero interchange fee,” although they argue the results would not be efficient or desirable.²⁹

27. Bruce Mansfield, General Manager, Australia & New Zealand, Visa International, “Regulatory change and market leadership,” Address To Cards Australia Conference, Sydney, 17 August 2005, p. 6 (“[R]ewards cards were targeted at transactors - people who pay off their card every month...”).

28. Letter of 9 July 2004 from Jane Nash, Head of Government and Regulatory Affairs, Australia and New Zealand Banking Group Limited, to Dr John Veale, Head of Payments Policy Department, Reserve Bank of Australia (emphasis added).

29. David Evans and Richard Schmalensee, *Paying With Plastic* (1st ed., 1999), p. 280 (emphasis added).

- Visa consultant and originator of Visa’s principal economic defences William Baxter testified that “There would be credit cards without interchange fees.” However, he claimed, “there would be fewer of them, and their costs would be higher.”³⁰
- Visa consultant Jean-Charles Rochet acknowledged that “Payment systems can also function with a zero IE, like the [debit card systems identified by the Commission in the Sector Inquiry].”³¹
- Visa consultant Julian Wright writes, “It is true that provided there is not a dramatic loss of business to proprietary schemes, the existing payment schemes would still be viable with interchange fees set at zero (individual issuers and acquirers would adjust their prices accordingly to retain profitability).”³²
- Visa itself echoes Wright’s point that pricing can adjust to permit issuers to cover their costs: “If there were no interchange fees or equivalent payments, each issuing bank would have to recover all its costs from the revenue it received from cardholders. It would have to adjust its issuing activities accordingly, so as to bring its costs and revenue into balance.”³³

3. Interchange Fees Are Unlikely To Achieve Efficiencies and Public Benefits

If an interchange fee is claimed to correct an externality, it is important to understand clearly the nature of the alleged externality in order to evaluate (1) whether the externality is likely to be significant; (2) whether it is possible that the interchange fee indeed might overcome that externality; (3) what the theoretically optimal level of interchange fees should be; (4) whether the magnitude of the potential benefits from interchange fees are likely to outweigh the costs and risk that the fees instead will have harmful effects; and (5) whether there might be a mechanism consistent with solving the alleged externality in which the parties setting

30. Testimony of William Baxter before the United States Federal Trade Commission, *supra* note 19 (emphasis added).

31. Jean-Charles Rochet, “Comments on the Interim Report on Payment Cards and Payment Systems Produced by the European Commission on April 12, 2006,” p. 3 (emphasis added).

32. Julian Wright, *One-sided Logic in Two-sided Markets*, 3 *Review of Network Economics* 44 (2004), p. 58 (emphasis added).

33. Visa Europe, *Response To The Consultation On The European Commission’s Interim Report I: Payment Cards*, 21 June 2006, p. 22.

the level of the fees (if any), have the economically appropriate incentives to choose fees that maximize consumer welfare.

As I explained, there is no persuasive explanation for the continued importance of “network externalities” as such. Instead, defenders of interchange fees focus on a “usage externality” – the fact that consumers choose the payment method, but do not take into account the costs of that payment method to merchants. Although there is a possible theoretical rationale for interchange fees based on this externality, that theory, standing alone, is insufficient to support the continued use of interchange fees in card networks. It is likely that the true extent of the externality is small (whether positive or negative) relative to the level of the interchange fees imposed by unconstrained card schemes, which use interchange fees to generate bank profits *at the expense of* payment efficiency. Moreover, merchants – not the card schemes or card issuing banks – have incentives most closely aligned with those of the general public with respect to preferences about the existence and level of interchange fees.

3.1 The Usage Externality

While acknowledging that a network externality from expanded cardholder and merchant participation in the network “perhaps becomes less and less important as the network matures, i.e., when most potential users have joined,” Rochet and Tirole explain that “even in a mature network (where most buyers hold cards and most sellers accept them), the usage externality... remains important: the choice of the payment instrument is ultimately a decision of the buyer, that impacts the net costs of the seller.”³⁴

34. Jean-Charles Rochet and Jean Tirole, A Primer on Payment Cards, Report Prepared for the Portuguese Competition Authority, Final Version, July 22, 2005, p. 4.

The idea underlying the claimed “usage externality” defence of interchange fees was first described by Baxter in 1983. Baxter noticed that pricing efficiency normally requires that each product be sold at a price which reflects its marginal cost. This principle would suggest that merchants would charge a higher retail price to consumers using a more costly payment method. If the merchant priced payment methods in this way, the consumer would face an efficient price signal, and would choose a payment which minimized the combined cost of merchant and consumer. This efficient outcome would exist without any interchange fee. But, because interchange fees are used by card payment networks, Baxter *inferred* – incorrectly – that this could only mean that interchange fees are superior to reliance on the decentralized actions of a deregulated merchant sector:

In four-party payment mechanisms, too, a side payment between [cardholder] and [merchant], coupled with payment by each [cardholder] and [merchant] to [issuer] and [acquirer], respectively, in amounts equal to respective bank costs but not to respective marginal utilities of [cardholder] and [merchant], is theoretically sufficient to attain equilibrium. That in practice side payments between banks occur instead is strong evidence that higher transaction costs characterize side payments that take the form of price adjustments between the principals.³⁵

Baxter’s description is difficult to follow, but his point is that if merchants were unconstrained and free to set different effective prices to consumers (i.e., “side payments between cardholder and merchant”) for different payment instruments, then interchange fees (i.e., “side payments between banks”) would not be needed to attain efficiency. Others since Baxter have similarly noted that interchange fees are unnecessary for efficiency if merchants have complete pricing flexibility.³⁶

35. William F. Baxter, Bank Interchange of Transactional Paper: Legal and Economic Perspectives, 26 J.L. & Econ. 541 (1983), p. 553, n.9.

36. See, Julian Wright, Optimal Card Payment Systems, 47 Eur. Econ. Rev. 587, 603 (2003) (“In a world of perfect retail competition, the interchange fee will not be allowed to play the role of aligning joint benefits and joint costs, but nor will it be needed for this purpose.”); Joshua S. Gans & Stephen P. King, The Role of Interchange Fees in Credit

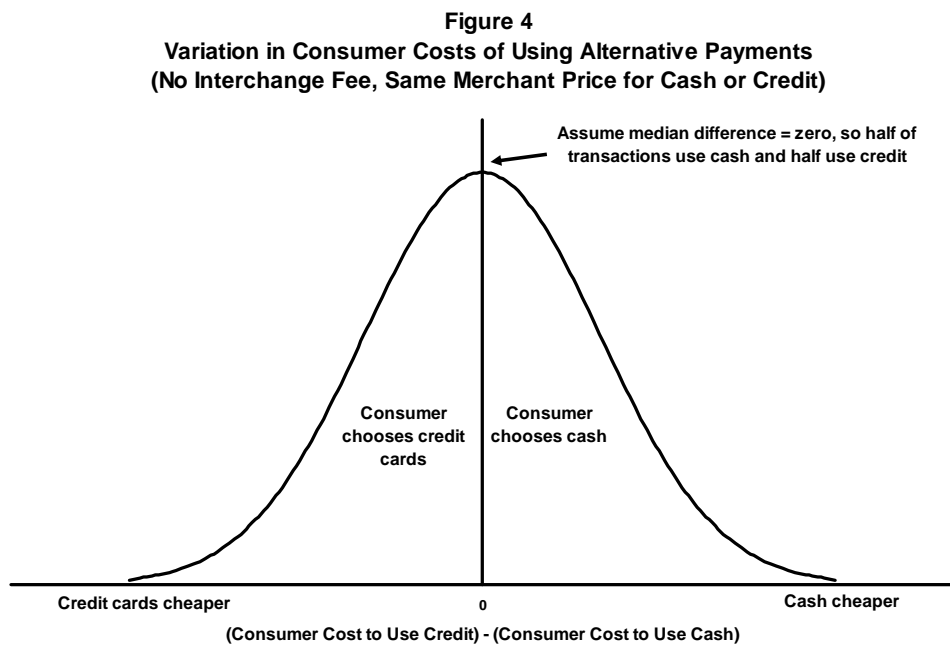
The card networks, however, did not leave merchants free to compete in an unregulated way, but instead regulated merchants' ability to influence consumer payment choices (by forbidding them to "surcharge" card transactions and by imposing other restrictions), and they imposed and regulated the level of interchange fees. Baxter simply *assumed* from these facts that interchange fees must be a less costly way for payment networks to attain the efficient outcome he described. *But this is assuming the answer to the key question: do interchange fees, no-surcharge rules and other merchant restrictions improve efficiency over a decentralized, deregulated system in which individual merchants can decide for themselves whether and in what form and amount to provide incentives to consumers to use particular payment methods?*

Baxter's defence of interchange fees is based on an assumption that credit cards benefit merchants by reducing merchant costs. If this is so, merchants would benefit from more card transactions, and they would have an incentive to charge lower prices to consumers who use credit cards. Due to transaction costs (or, perhaps in some jurisdictions, legal restrictions), merchants may find it costly or impossible to offer price incentives to customers based on payment method, network or issuing bank. Baxter explained that the card schemes, as a theoretical matter, could solve this problem by charging the merchant an interchange fee equal to the amount he assumes the merchant saves when a consumer uses a credit card. To explain this argument, it is helpful to consider a series of diagrams. (For simplicity, I show a case in which

Card Associations: Competitive Analysis and Regulatory Issues, 29 *Austl. Bus. L. Rev.* 94, 100–01 (2001) (“[S]uppose that it was possible for the customer and merchant to vary the retail price contingent on the payment mechanism used. In this situation . . . the network effect on the merchant side would virtually be eliminated. . . . [W]e show that an efficient outcome always results.”).

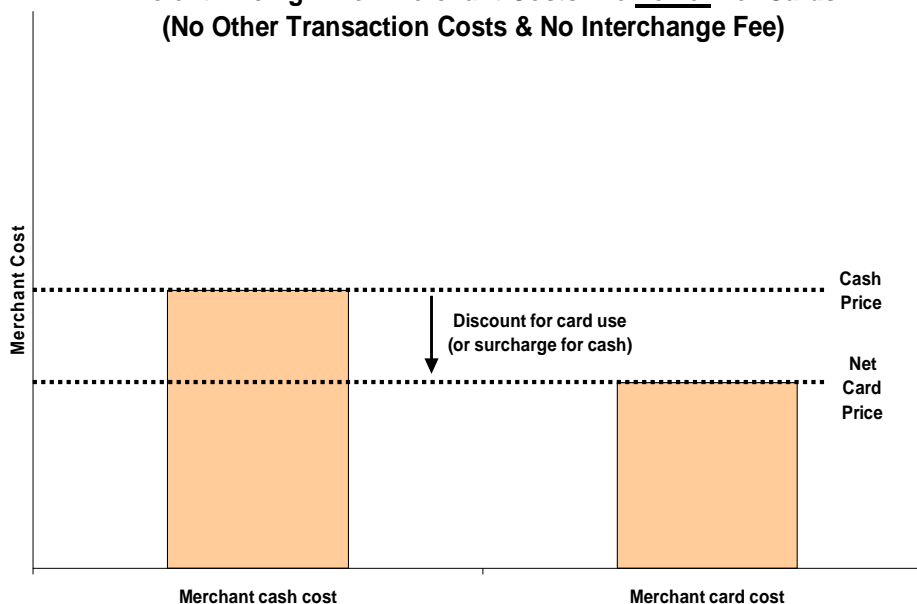
there are two payment methods, credit cards and cash, but the point can be generalized to include, e.g., EFTPOS as well.)

Consumers are likely to vary in their relative cost of using cash or credit cards to complete a particular purchase at a particular time from a particular merchant. Figure 4 shows a hypothetical distribution in which the median consumer is indifferent between using cash and credit cards to complete the transaction. (For now, the diagram assumes there is no interchange fee.) Consumers are free to choose the form of payment, and the merchant, by assumption, accepts cash and credit cards at the same price. As drawn, half of all consumers choose cash and the other half chooses credit cards.



To see how an externality might arise on the merchant side, suppose that merchant operating costs are significantly lower if a particular customer who possesses both cash and a credit card presents the credit card for payment. (Figure 5)

Figure 5
Efficient Pricing When Merchant Costs Are Lower For Cards
(No Other Transaction Costs & No Interchange Fee)

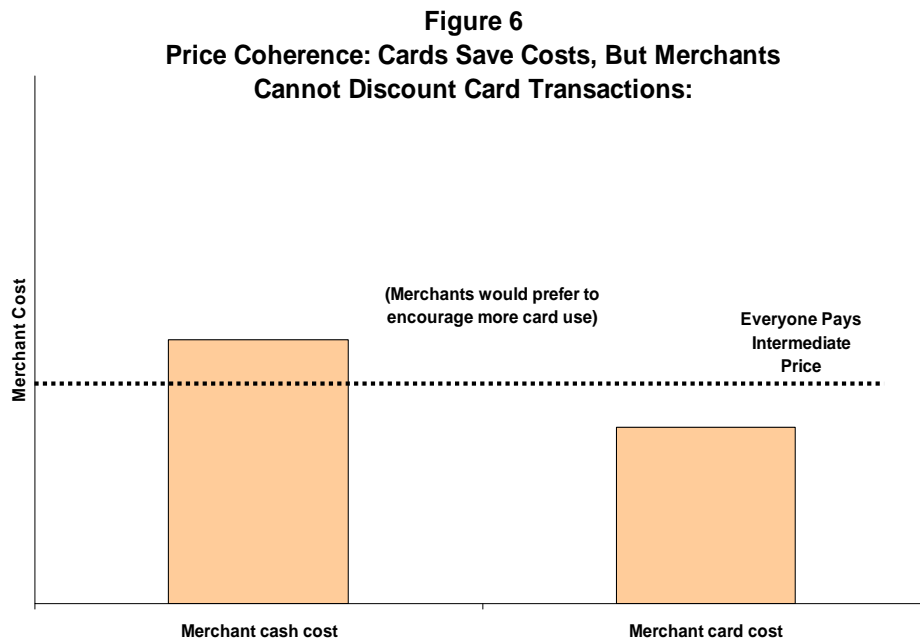


If credit cards are cheaper for merchants, then competing merchants who are free to do so will tend to offer a lower price to customers who use credit cards, the price difference being equal in magnitude to the amount of the merchant cost savings. In a symmetric way, merchants will charge higher prices to customers presenting credit cards if credit cards are more costly than cash. This situation is commonplace in many other markets. For example, since the widespread adoption of Internet technology, consumers purchasing airline tickets using an airline’s web site typically pay a lower price than consumers who purchase tickets from human travel agents, who assess a separate service charge to cover their costs.³⁷

If there is a contractual or legal impediment, or significant cost, which prevents merchants from charging different prices based on payment type, then the efficient two-price outcome might not occur. If, for whatever reason, merchants

37. See, Dennis W. Carlton and Alan S. Frankel, Transaction Costs, Externalities, and “Two-Sided” Payment Markets, 2005 Columbia Business Law Review 617 (2005), pp. 621-22.

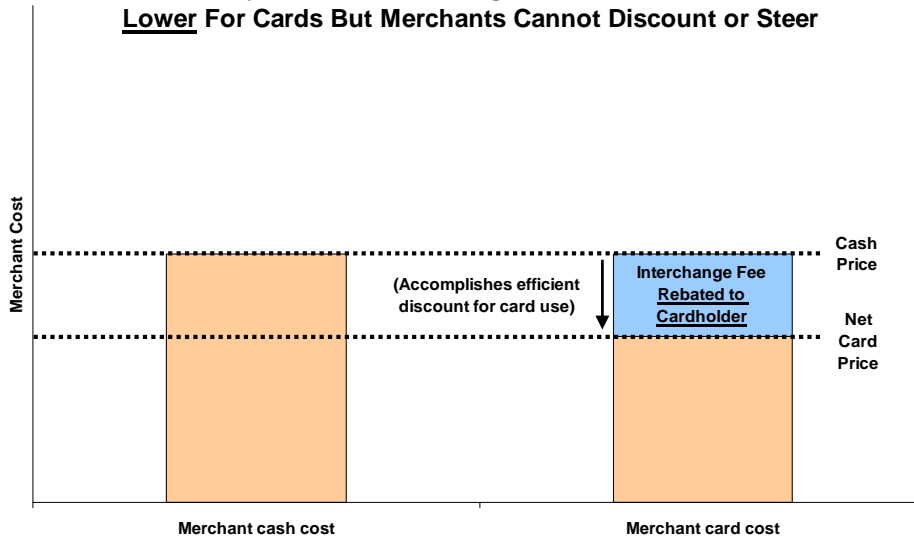
cannot charge different prices at the point of sale between cash and credit card customers (or otherwise “steer” consumers efficiently),³⁸ but can only charge a single price to everyone – a phenomenon I call “price coherence” – then that price will be based on the weighted average of payment costs. As drawn, and based on an assumption that absent interchange fees credit cards would reduce merchant costs, the one-price outcome results in lower than optimal prices charged to cash customers and higher than optimal prices charged to credit card customers. Merchants would prefer more card transactions, but find it impossible or impractical to use the price system to achieve that result. (Figure 6)



If an interchange fee is charged to the merchant in an amount exactly equal to the merchant’s cost savings from card use, and the fee is credited by the card issuing bank to the credit card customer’s account, then such a system would effectively replicate the efficient two-price outcome. (Figure 7)

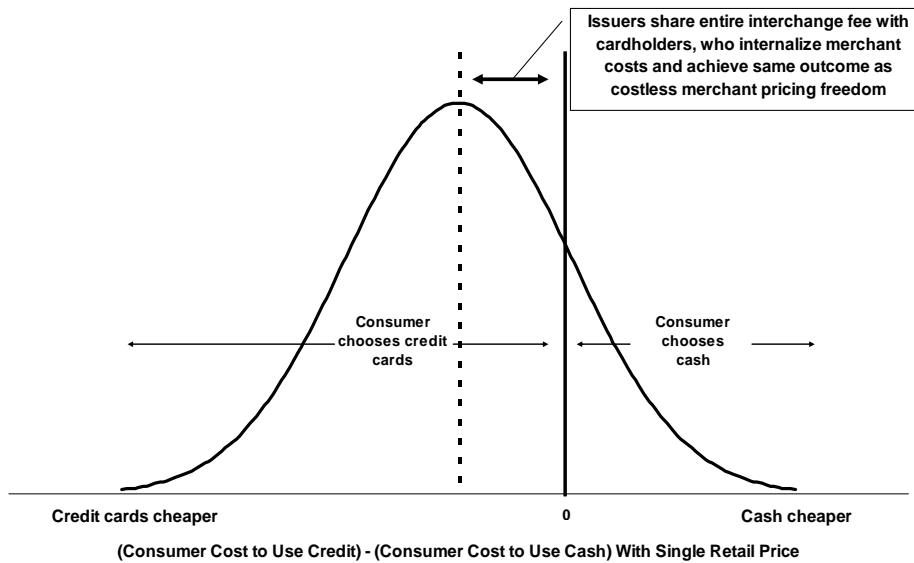
38. Merchants might be able to use other, non-price means to induce more consumers to choose credit cards (credit card only queues, etc.)

Figure 7
Theoretically Efficient Interchange Fee if Merchant Costs Are Lower For Cards But Merchants Cannot Discount or Steer



Either a credit card discount or a perfect interchange fee system can induce consumers to take merchant cost differences into account efficiently when making their payment choice; consumers will “internalize” the externality through either of these (in theory) equivalent practices. (Figure 8)

Figure 8
Internalizing Usage Externality



A larger fraction of consumers would then find that their net cost of using credit cards is less than that of cash, and so choose to use credit cards. The merchant, meanwhile, becomes indifferent at the point of sale to consumer payment choice, because the effective cost of both types of payment are the same to the merchant. This is an intuitive result: the effective relative retail price faced by the consumer is 1:1, and the merchant's effective relative cost after paying the interchange fee is also 1:1.³⁹

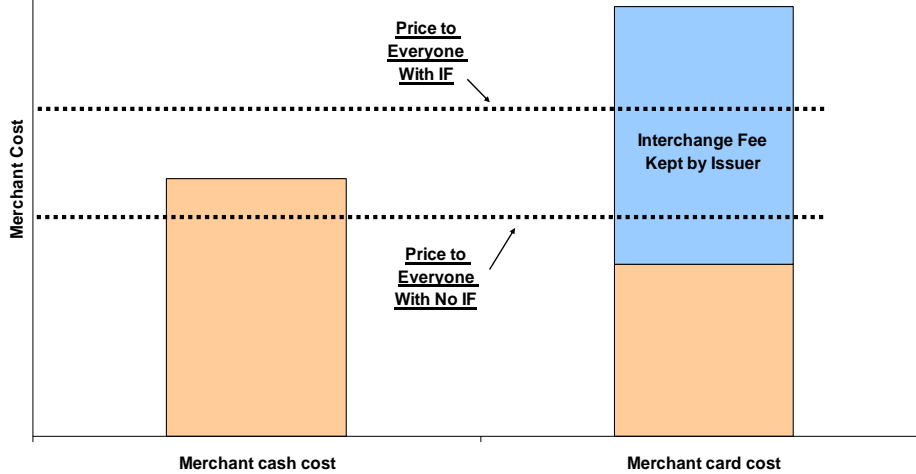
If cards cost merchants *more* than cash, then, under this theory, a “negative” interchange fee would be required for efficiency.⁴⁰ Credit card issuers would have to charge fees to their card customers and remit these fees to merchants, who, as in the previous case, would then be indifferent to payment choice while consumers would have the optimal incentives to internalize the higher merchant costs associated with credit cards when making their payment choices.

This analysis explains how an ideal interchange fee could, *in theory*, achieve an efficient outcome. But what if the interchange fee is set far above the theoretically indicated level shown in Figure 7? In this case, the merchant once again finds itself with different costs for cash and credit transactions, only in the opposite direction (even assuming that cards cost less in the first place without an interchange fee). (Figure 9)

39. *See also*, Joseph Farrell, Efficiency and Competition between Payment Instruments, 5 Review of Network Economics 26 (2006).

40. In the early years of the card schemes, transactions were slow and cumbersome. The optimal interchange fee under this theory should probably have been negative, compensating merchants for the higher costs. But credit card interchange fees have always flowed to the card issuer, not to the merchant. Analogously, if U.S. banks were motivated to solve the Baxter usage externality when, in decades past, they imposed interchange fees on checks, then they would have established negative fees which compensated merchants for the cost of handling checks. Instead, check issuing banks collected interchange fees just as credit card issuers do today – until competition (and, finally, statutory changes) ended the practice where it still persisted.

Figure 9
Interchange Fee Set Too High, Funds Kept by Issuers,
And No Surcharging Takes Place:



In this situation, retail prices rise for all customers. (Figure 9) If none of the interchange fee revenue is rebated to cardholders, then even cardholders pay a higher net price than if there were no interchange fee. The interchange fee in this scenario has done nothing directly to encourage card use over cash, but has instead acted much like a sales tax on all retail sales.

If *some* of the interchange revenue is rebated to cardholders, then some cardholders will be steered by this rebate towards increased credit card use – even though consumers in the aggregate would be better off (i.e., they would pay lower average prices) if there were less credit card use. The interchange fee exploits an externality problem, rather than solving one, and generates significant wealth transfers.

3.2 Implications of the Usage Externality for Regulatory Policy

The usage externality theory leads to a number of important insights and policy implications:

- The efficient interchange fee under this theory *has nothing directly to do with the costs incurred by card issuing banks*. It is instead driven by merchant preferences and cost differences.⁴¹ Card issuer costs are less likely to result in significant externalities because card issuers have direct relationships with their cardholders who make payment choices at the point of sale, and can directly internalize the costs charged directly to them by their own banks.
- If the goal is to solve the usage externality faced by merchants, then there is no reason to prohibit merchants from attempting to solve the problem themselves through whatever pricing or steering practices the merchant chooses.⁴²
- Merchants are far more likely than MasterCard and Visa to know the merchants' own costs and preferences.
- If the merchant cost savings externality is the rationale for interchange fees and the fees are set to attain efficiency, then, barring evidence that merchants prefer to let banks retain the funds, one would expect interchange fees to be rebated fully and directly to cardholder accounts.
- If the interchange fee is used to improve an imperfection in merchant pricing to cardholders, then it makes sense to permit each merchant to decide whether and by how much they want this problem "fixed" through a (disclosed) interchange fee rebated to their own cardholder customers.
- If the interchange fee regime really helped merchants solve the usage externality which they face, then merchants should support interchange fees. In fact, they do not. To the contrary, merchants' groups throughout the world have been advocating reductions in interchange fees.

41. See, Farrell (2006), *supra* note 39. Because this analysis leads to a conclusion that merchant costs and preferences should determine whether there is an interchange fee and at what level, some Visa consultants recently have instead advocated the idea that there are yet more externalities, and that credit cards are socially beneficial even beyond any transactional benefits to merchants. Although beyond the scope of this submission, there are significant problems with the existing attempts to measure these alleged social externalities. In any event, it is doubtful that bank networks should (or in fact do) determine the level of interchange fees when left free to do so based on such alleged social welfare considerations which they identify and claim themselves to measure.

42. It must be conceded that a card scheme might choose the wrong interchange fee for a merchant even if it really had solution of this externality as its motive; if a merchant can correct the error on its own, there is no justification to prohibit the merchant from doing so. The RBA was therefore prudent to eliminate the no-surcharge provisions of scheme rules (and induce American Express to similarly eliminate its anti-discrimination rule) even if the schemes actually attempt to use interchange fees to enhance efficiency.

- Attempting to solve the externality at all may be more trouble than it's worth, and generate more costs than it eliminates. As Visa consultant Jean-Charles Rochet explains, "when the optimal IF... is close to zero, the implementation costs that the network would have to incur for negotiating a non-zero IF and implementing the associated interbank payments could exceed the benefits generated by the internalization of usage externalities."⁴³ But the card schemes have not shown that the benefits to an "optimal" interchange fee exceed these implementation costs and distortions, let alone that the schemes have any incentive or ability to choose the optimal interchange fee.

It is sensible to require evidence that the usage externality is so significant in magnitude, and the interchange fee an effective enough solution, to justify *any* default interchange fee. Given the harm and inefficiency generated by high interchange fees, and the difficulty of managing an interchange fee system in a centralized way that can reliably achieve net benefits for the public, it makes sense – absent compelling evidence to the contrary – to eliminate the practice of collecting interchange fees altogether. This would leave each merchant free to steer consumers, as it sees fit, to cope with any merchant-based usage externality. Merchants are better positioned to judge and remedy this issue than are card issuing banks.

If interchange fees are permitted, then the externality theory indicates that merchants should be allowed to choose the level of interchange fee they pay to their own cardholder customers. Although this may be an unfamiliar suggestion, it is equivalent to a discount for card use and is precisely the solution suggested by the theoretical problem first claimed to exist by Baxter. It is also accepted in principle – in some circumstances – by at least one Visa consultant, Professor Rochet:

Mr. Frankel: "... [I]f you assume acquirers are perfectly competitive, then [the externality] is all on the merchant side. So then the question is: Wouldn't you recommend letting the merchant pick any interchange fee it wants and having that amount directly rebated back to the cardholder through the credit card system?"

43. Jean-Charles Rochet, "Comments on the Interim Report on Payment Cards and Payment Systems Produced by the European Commission on April 12, 2006," p. 3.

Mr. Rochet: “You are absolutely right, in a perfectly competitive system. As soon as you introduce market power, then it is not true anymore. You have to be very clear about where the market power is. Is it on the merchant side? Is it on the acquirer side? Is it on the issuer side? The answer depends a lot on the subtleties of market power. It is a very delicate matter.”⁴⁴

3.3 Does The Existence of Market Power Support The Efficiency of Interchange Fees?

As quoted above, Professor Rochet suggests that the existence of *market power* can support the continued existence of centrally fixed interchange fees in credit and debit card systems. His reasoning is straightforward, although misguided and unpersuasive as a principle of public policy.

A textbook monopolist restricts output and increases price. The reduction in output generates an inefficiency – too little of the monopolized product is being used, as consumers avoid the high prices and use less (socially) efficient alternatives. If a government pays a per-unit subsidy to such a monopolist, the monopolist will tend to expand output. If the amount of the subsidy is set just right, the output can, theoretically, return to the amount which would be offered in a fully competitive market. The only difference, of course, is that there are additional wealth transfers; the monopolist is further enriched at the expense of the public, in pursuit of the technical economic goal of allocative efficiency.

Some Visa consultants have offered theoretical defences of interchange fees which rely on the assumption that individual card issuing banks have market power.⁴⁵

44. Exchange during the 2005 Santa Fe Conference, Interchange Fees in Credit and Debit Card Industries: What Role For Public Authorities?, Federal Reserve Bank of Kansas City (2005), pp. 148-49 (emphasis added).

45. See, e.g., Julian Wright, Optimal Card Payment Systems, 47 Eur. Econ. Rev. 587, 603 (2003), p. 607 (“Note as with the earlier models, there will be too little card usage from the central planner’s perspective. Cardholders do not internalize the markups they generate for issuing banks when making their usage decisions.”); Jean-Charles Rochet & Jean Tirole, Cooperation Among Competitors: Some Economics of Payment Card Associations, 33 RAND J. Econ. 549 (2002), p. 552 (“[W]e assume that acquirers are competitive while issuers have market power. The acquiring side . . . is widely viewed as

If issuers have market power, their models show, then a payment to the issuers which increases banks' marginal revenue from their customer's card use can have the effect of stimulating card use. Others have concluded that interchange fees stimulate card use, at least to some extent, but whereas, for example, the RBA has expressed the concern that interchange fees generate too much usage of credit cards, by assuming that issuers have exercised market power, Visa's consultants show that, as a theoretical matter, it is possible that interchange fees have efficiently stimulated card usage to offset the ill effects of each bank's own unilateral market power.

Neither Visa nor MasterCard themselves contend that interchange fees are needed because their members possess market power. To the contrary, they sometimes contend that issuing competition is so intense that one need not be concerned if interchange fees are set too high. But even if card issuers have significant market power, it would seem to be perverse public policy to approve subsidies to such institutions – let alone subsidies chosen by networks created by those institutions – rather than attempt to reduce the prevalence of marketplace features which create or maintain market power.⁴⁶

highly competitive. . . . In contrast, the issuing side is generally regarded as exhibiting market power. . . . Note that were the issuing side perfectly competitive, issuers would have no preference over (make no profit regardless of) the interchange fee, and so the latter would be indeterminate. . . .”). In Australia, Chang, et al. suggest that card issuing banks possess market power. See, Howard Chang, David S. Evans, And Daniel D. Garcia Swartz, The Effect of Regulatory Intervention in Two-Sided Markets: An Assessment of Interchange-Fee Capping in Australia, 4 Review of Network Economics 328 (2005), p. 334 (“As in other markets, the extent to which the loss in revenue from merchants will get passed on to cardholders depends on the degree of competition among card issuers. Given that card issuing in Australia is relatively concentrated we would not expect full pass through, at least in the short run.”).

46. The schemes and their consultants sometimes contend that Australian *merchants* have market power. If the interchange fee is being used to offset the output reducing effects of market power and the schemes really believe that merchants possess market power, then this logic would suggest that they should have the merchant sector – not issuing banks – receive interchange fees.

3.4 Interchange Fees Are Paid Fully by Merchants, but Are Not Rebated Fully to Cardholders

Baxter's original theoretical usage externality model offered in defence of interchange fees assumed the entire amount of the fee is collected from merchants and rebated back to cardholders due to competition among banks. The card schemes sometimes contend as well that the interchange fee cannot cause any harm because any excess interchange fee revenue will simply be rebated to cardholders. According to Visa consultant Tim Muris, for example, "Because of the extraordinary level of competition in the [U.S.] consumer market... there is an overwhelming incentive for issuers to pass increases in their interchange fees on to consumers."⁴⁷ Visa's Paul Allen echoes this idea:

[I]f by chance Visa did set the fee 'improperly high', members could not retain any supracompetitive profits because unrestrained competition within the Visa system among both issuers and acquirers means that, in the long run, no member can earn more than a competitive rate of return. Because Visa, the organization, operates as a not for profit... and allows its members to compete freely, interchange is nothing more than an internal equilibrating device that does not and cannot harm consumer welfare.⁴⁸

Generalizing, Evans and Schmalensee argue that "The key point of this discussion is that the interchange fee is not an ordinary price; its most direct effect is on price structure, not price level."⁴⁹ They suggest "the overall level of fees... might be measured as total fees [cardholder fees plus merchant fees] per dollar of

47. Timothy J. Muris, Payment Card Regulation and the (Mis)application of the Economics of Two-Sided Markets, 2005 Columbia Business Law Review 515 (2005), p. 533.

48. VISA U.S.A. Inc., Comment on Issues Relating to Joint Venture Project; Joint Ventures: Putting a Principle to Practice (July 31, 1997), <http://www.ftc.gov/opp/jointvent/allen.shtm>. I address the impending conversion of Visa into an independent, for-profit company below.

49. David Evans & Richard Schmalensee, The Economics of Interchange Fees and Their Regulation: An Overview, in Interchange Fees in Credit and Debit Card Industries: What Role for Public Authorities?, Federal Reserve Bank of Kansas City (2005), p. 76.

transactions” and “their structure... might be measured by the shares of total fees paid by merchants and cardholders.”⁵⁰

In reality, however, the interchange fee does affect the “price level” even if this term is defined as the sum of the merchant and cardholder price. The reason is that interchange fees are borne fully by merchants, but are not rebated fully to cardholders.

There is a wide consensus that interchange fees and changes in interchange fees are fully borne by merchants (rather than, say, acquiring banks).⁵¹ On the other hand, even an analysis by some of Visa’s consultants contends that the reductions in interchange fees resulting from the RBA’s reforms led issuing banks to recover only 30%-40% of this lost interchange fee revenue from cardholders in the form of increases in other fees.⁵² By implication, most of the interchange fee revenue goes towards increased issuer profits or increased issuer costs.

In Europe, Visa acknowledged and responded to the fact that – some theoretical models notwithstanding – interchange fees are not all passed through to cardholders:

The [Visa consultants] Rochet-Tirole definition of two-sided industries reproduced in the [European Commission’s] Interim Report assumes full pass-through of the [interchange fee] on each side. Yet in practice there may not be full pass-through, for example,

50. Id., p. 73. It is not, in fact, obvious that the relevant price should be measured as a percentage of transaction value, simply because the card schemes maintain percentage interchange fees on credit card transactions. An alternative – the amount of fees per transaction – may be more appropriate and has been used in many debit and ATM networks. On a per-transaction basis, a constant percentage fee rate generates price increases as average transaction amounts increase.

51. See, e.g., discussion at Frankel and Shampine (2006), pp. 631-32.

52. Howard Chang, David S. Evans, and Daniel D. Garcia Swartz, *The Effect of Regulatory Intervention in Two-Sided Markets: An Assessment of Interchange-Fee Capping in Australia*, 4 *Review of Network Economics* 328 (2005), pp. 336, 339. (“[I]ssuing [in Australia] is also highly concentrated. We would therefore not anticipate full pass-through and, at least for the short-run, that is what we find.” “[R]egulation (or its anticipation) was accompanied by a rise in real other service charges of roughly 30 to 40 percent of the interchange loss amount.”).

on the issuing side. Issuers may find that they can increase their issuing business by using, as it were, part of an increase in the level of a MIF to recruit more cardholders, and not pass through the whole of the increase directly to its cardholders.⁵³

...

[T]here are sound business reasons why issuers may not pass through to their cardholders the whole of an increase in the [interchange fee] in the form of reductions in cardholder fees or increases in rewards that cardholders value. An issuer may, for example, use, as it were, part of the increase to spend more on promoting its business or on recruiting more cardholders...⁵⁴

Visa also explains why this situation can give the network and its members an incentive to impose a high interchange fee, stating “If additional revenue is less likely to be competed away when received on the issuing side than on the acquiring side, then it would be privately-optimal [for the network] to increase the [interchange fee].”⁵⁵

3.5 Does the “Two-Sided” Nature of Card Networks Imply Interchange Fees Are Necessary or Efficient?

A related argument used to defend interchange fees is that interchange fees affect the “price structure” in an efficient way, by shifting a larger share of the total fees (merchant fees plus cardholder fees) onto merchants, who are less price sensitive than cardholders. This argument is flawed. It ignores the problem described above, that by “shifting” costs onto merchants, the banks collectively increase the total amount of revenue they obtain from the public (merchants plus cardholders) – that is, the interchange fee affects the price level as well as the price structure. In addition, this policy defence of interchange fees is indistinguishable from a claim that because

53. VISA Europe, Response To The Consultation On The European Commission’s Interim Report I, Payment Cards (21 June 2006), p. 21 (emphasis added).

54. *Id.*, p. 25.

55. *Id.*, p. 21. Privately optimal means more profitable for issuing banks and their networks.

a perfectly price discriminating cartel is economically “efficient,” it therefore poses no harm to the public and should not be opposed or sanctioned.

If card issuing banks attempted to charge transaction fees to their own cardholder customers, those customers would likely make fewer card transactions, and competition among issuing banks would constrain the amount, if any, of such fees. Acting collectively to instead charge transaction fees to merchants may indeed have enabled issuing banks to collect more revenue with a smaller depressing impact on overall card use. But this is what a cartel will attempt to do: charge high prices to those customers with low elasticity of demand, which find it difficult or costly to rely on alternatives. The card schemes, moreover, enact other rules and restrictions which cause the merchant’s demand to be more inelastic, which leaves merchants vulnerable to this collective exercise of market power.

4. The RBA Interchange Fee Reforms Have Benefited the Public

Notwithstanding the dire predictions of a possible death spiral from the RBA’s intervention in the setting of interchange fees, in 2003 the RBA reduced credit card interchange fees from an average of 0.95% to an average of 0.55%. In November 2006 the credit card interchange fee was reduced a further 0.05% to a weighted average of 0.50% – a total reduction of nearly half the original average rate. Visa consultants Chang, Evans and Garcia Swartz call the RBA interchange fee reform “a natural experiment, almost” of the effects of sharp reductions in interchange fees.⁵⁶

So what happened?

The schemes claim that both cardholders and merchants are worse off as a result of the reforms. According to MasterCard’s General Counsel, the RBA reform

56. Howard Chang, David S. Evans, and Daniel D. Garcia Swartz, *The Effect of Regulatory Intervention in Two-Sided Markets: An Assessment of Interchange-Fee Capping in Australia*, 4 *Review of Network Economics* 328 (2005), p. 329.

“will inevitably lead to higher merchant fees.” “[The RBA] have managed to find a way to hurt both cardholders and merchants at the same time.”⁵⁷ Visa consultant Tim Muris claims, “[T]he evidence from Australia thus far is consistent with the conclusion that the controls on interchange fees have harmed consumers directly and had a detrimental impact on competition.”⁵⁸

In this section I show that there is no merit to these claims. Even by the standard proposed by Visa’s own consultants, there has been a significant reduction in overall credit card fees in Australia, with no evidence of ill effects. To the contrary, there are signs that competition has intensified among issuers seeking “revolver” customers who use credit cards to finance purchases, not just as payment devices.

4.1 There was No Death Spiral

After four years, there is no sign of the “death spiral” of which the networks warned. Card issuing banks did replace some of their lost revenue through increased cardholder fees, and the issuers did reduce the amount of reward points in certain card programs, but – contrary to the networks’ extreme predictions – cardholders did not react by abandoning their credit cards. Moreover, the direct effect of reduced interchange fees on merchants is to reduce the merchant service charges they pay. It was highly unlikely that merchants would react to lower interchange fees by *dropping* card acceptance, and I am not aware of any reports that merchants have lost interest in card acceptance in significant numbers (or at all) as a result of lower interchange fees.

57. Noah Hanft, Let’s Get Real, in *Interchange Fees in Credit and Debit Card Industries: What Role for Public Authorities?*, Federal Reserve Bank of Kansas City (2005), p. 211-12 (emphasis added).

58. Timothy J. Muris, *Payment Card Regulation and the (Mis)application of the Economics of Two-Sided Markets*, 2005 *Columbia Business Law Review* 515 (2005), p. 543.

4.2 Consumers Continue to Carry Credit Cards

In his original defence of interchange fees, Baxter argued that consumers were too sensitive to fees on credit cards to bear directly the costs incurred by card issuers to serve them. Even though use of credit cards would benefit merchants, he claimed, cardholders would avoid them if there were significant cardholder fees. Tim Muris similarly predicts:

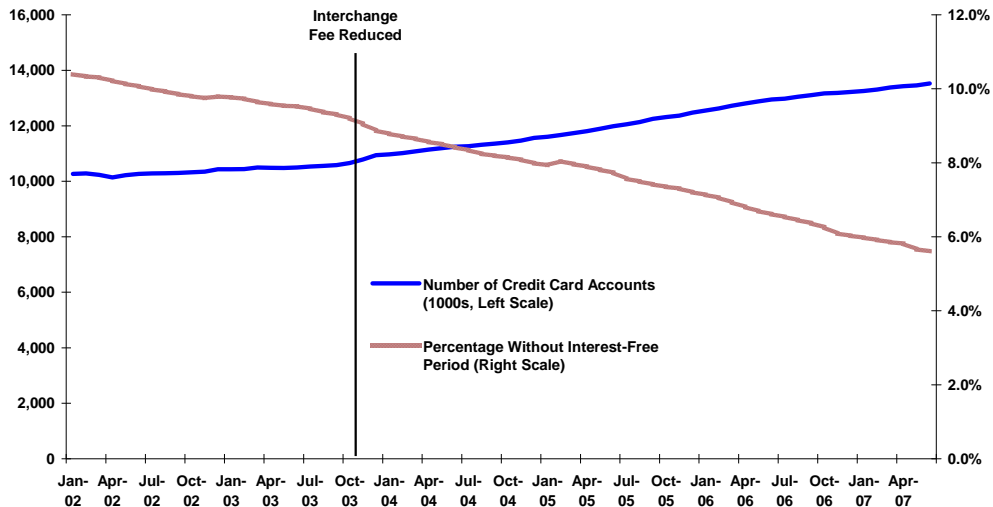
[D]ramatic increases [in cardholder fees such as annual fees] would likely decrease card ownership, and especially multiple card ownership, which would thereby reduce competition in the payment card market. Given the presence of alternative payment methods, many consumers would avoid cards rather than pay more.⁵⁹

But the benefits to *consumers* from carrying credit cards today are significant, and they are unlikely to abandon their cards in response to modest annual fees, even if reduced rewards may, at the margin, make them less likely to use those cards for some particular purchases.

Contrary to predictions that consumers would stop carrying cards or multiple cards, RBA data, presented in Figure 10, show that the number of active credit card accounts in Australia continued to grow following the 2003 interchange fee reduction, despite the reductions in rewards programs and increases in annual fees on some card accounts cited by Muris and others. RBA data also reveal that the reduction in interchange fees did not correspond to a reversal in the trend towards issuers providing an interest-free period on credit cards, notwithstanding claims that interchange fee revenue funds the provision of an interest-free period.

59. *Id.*, p. 543.

Figure 10
Number of Credit Card Accounts (1000s) and
Percentage of Accounts Lacking Interest-Free Period: 2002-2007



Source: RBA Bulletin data, Table C1 and Additional Credit Card Data, http://www.rba.gov.au/PaymentsSystem/PaymentsStatistics/payments_data.html

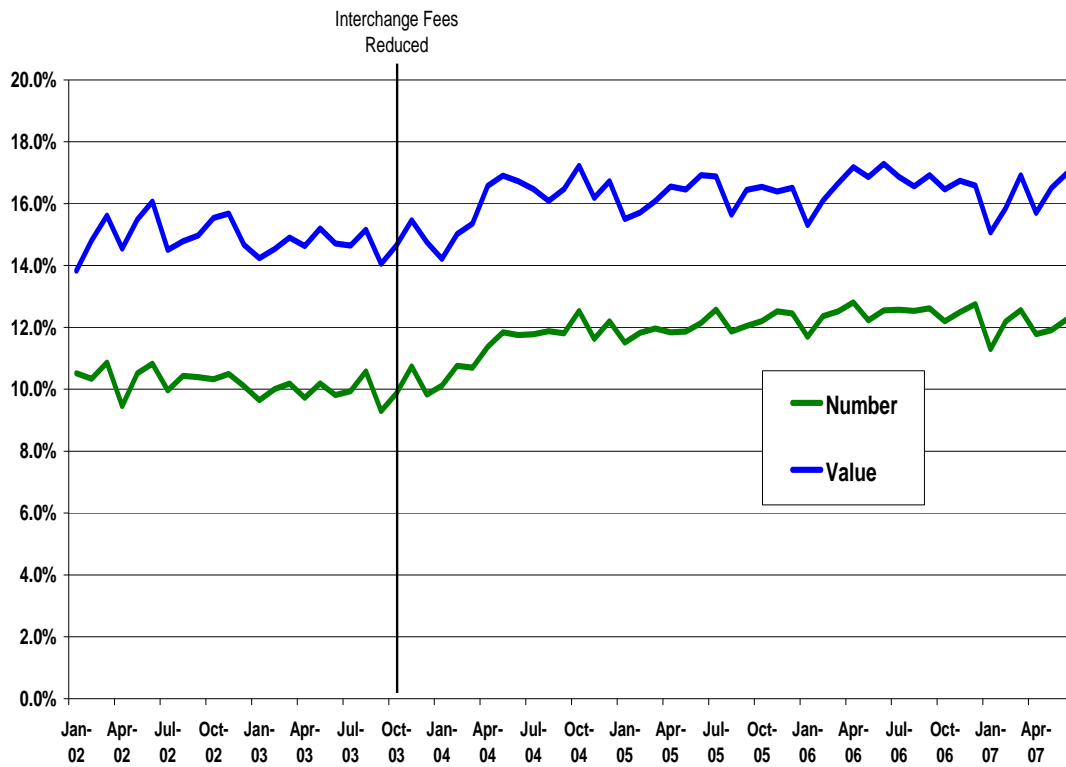
4.3 Three-Party Card Networks Increased Their Share of Transactions Only Modestly, While Their Merchant Fees Fell Significantly Along With Visa and MasterCard Interchange Fees

The card schemes contend that the reduction in interchange fees mandated by the RBA has created a competitive imbalance and caused a significant increase in the share of transactions processed by the American Express and Diners Club “three-party” card systems. This, along with the higher merchant fees charged by the three-party systems, is why MasterCard’s Noah Hanft contends that the interchange fee reduction “hurt both cardholders and merchants at the same time.”

It is true that RBA data indicate that the combined share of the three-party card systems has increased, but only slightly. (Figure 11) Also, that small increase occurred in 2004, shortly after the interchange fee reduction, and since then, there has been little movement in the shares of three- and four-party card transactions. The three-party networks accounted for an average of 10.2% of transactions from January 2002 through September 2003, and 11.9% of transactions from October 2003 through

June 2007, an increase of 1.7 percentage points. Their average share of transaction value increased from 14.9% to 16.2%, an increase of 1.3 percentage points.

Figure 11
American Express and Diners Club Share of Transactions and Charge Volume



Source: RBA Bulletin Table C-2.

4.4 Total Merchant Fees Fell Sharply

Although the three-party networks' merchant service charges exceed those for MasterCard and Visa transactions, they have fallen as well since 2003. The relatively small increase in share of three-party networks has little impact on total merchant card fees when compared to the much larger reductions in MasterCard and Visa fees.

American Express maintains a premium price (merchant fee) compared to the prevailing Visa/MasterCard merchant service charge. Presumably, American Express faces a trade-off; as its premium increases, more merchants choose to forego accepting American Express cards and accept the risk that they will lose some

customers who are unwilling to use MasterCard or Visa credit cards, or another payment option accepted by the merchant. When the four-party scheme interchange fees are reduced, the spread between American Express and the four-party scheme merchant service charges increases. This increased spread increases the likelihood of merchants surcharging or refusing American Express transactions, which in turn puts pressure on American Express to reduce its merchant service charges. The result, then, is that reductions in Visa and MasterCard interchange fees result in reductions in American Express fees as well.⁶⁰

As American Express explains:

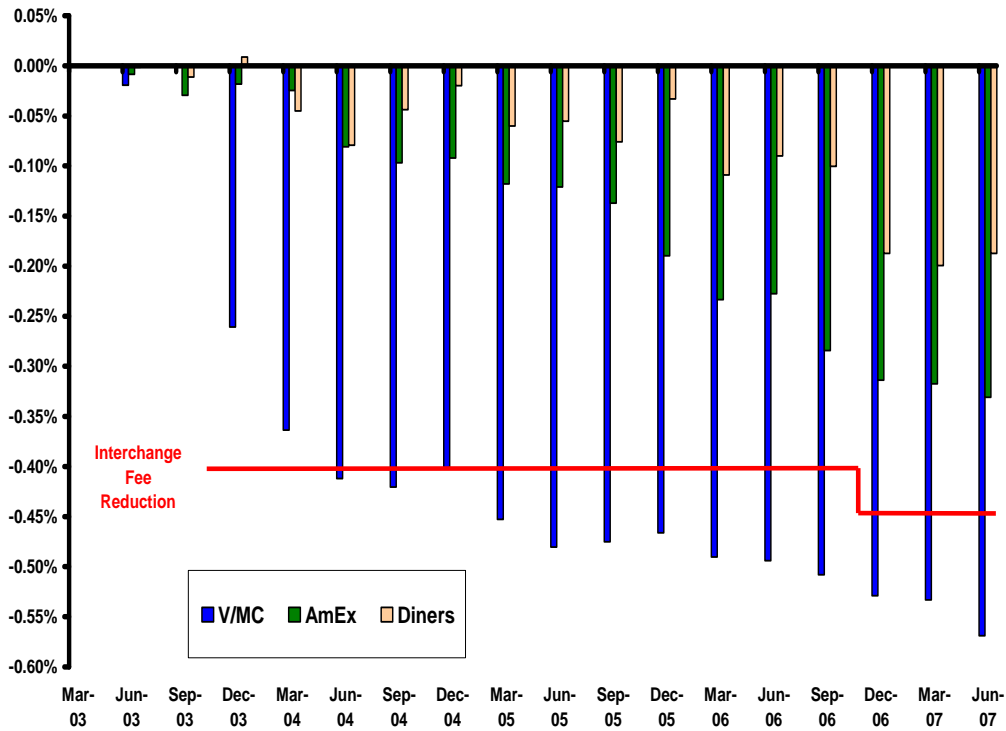
[G]overnment regulation of the bankcard associations' pricing could ultimately affect all card service providers by requiring reduction of the levels of interchange, which will drive down merchant discount rates. Downward movement of interchange and merchant discount fees may affect the relative economic attractiveness to card issuers and merchant acquirers of participation in a particular network. . . . Reductions in bankcard interchange mandated by the Reserve Bank of Australia in 2003 have resulted in lower merchant discount rates for VISA and MasterCard. As a result of changes in the marketplace, we have reduced our own merchant discount rates in Australia . . .⁶¹

The RBA has published the average merchant service charge for MasterCard and Visa, American Express, and Diners Club since the beginning of 2003. Figure 12 shows the changes in these merchant fees during that period, along with the change in the Visa/MasterCard (and the now-abandoned Bankcard) interchange fee.

60. Ed Gilligan, Group President, Global Corporate Services and Int'l Payments, American Express, Remarks Before the Financial Community Meeting, 10 (Aug. 4, 2004), http://library.corporate-ir.net/library/64/644/64467/items/172842/fcm0408_eg_s.pdf (“[L]imits on the level of interchange fee . . . could exert a downward pull on our own discount rates.”)

61. American Express Co., Form 10-K, at 13 (Dec. 31, 2004)).

Figure 12
Change in Interchange Fees and Merchant Service Charges, by Network



Within a few months of the interchange fee reductions, the MasterCard/Visa (and Bankcard) merchant service charge had fallen by the entire amount of the reduction in the interchange fee; it then continued falling even further. The average fee merchants paid to accept American Express transactions also fell, although not as quickly or as much, at least so far. But the RBA data indicate that the 45 bp (0.45%) reduction in interchange fees led to a 33 bp reduction in the average American Express merchant service charge by June 2007. In other words, the American Express fees fell by about three-quarters of the amount of the reduction in MasterCard and Visa interchange fee rates, and it is too soon to tell whether the fees have completed their decline.⁶² We understand that American Express pricing to

62. In addition, there are indications that to reduce surcharging on American Express card transactions, American Express may have offered some additional rebates or incentives to merchants which are not reflected in merchant service charge rates. See, for example, Telstra and Amex in Marketing Alliance, Dec. 6, 2005,

merchants is typically based on contracts with fixed prices for set periods, unlike many Visa and MasterCard acquirer contracts which are “interchange-plus,” so reductions in American Express’ overall fees may be staggered over time as contracts come up for renewal. Diners Club fees fell by less than American Express, but started from a lower level than American Express, so that these three-party fees are now at a similar level.

Merchants now pay 57 bp less for each dollar of MasterCard and Visa spending that they did under the March 2003 fees, and they pay lower fees for American Express and Diners Club transactions as well (declines of 33 and 19 bp, respectively). Merchants have saved roughly \$2.36 billion from October 2003 through June 2007, relative to what charges would have been using September 2003 rates and shares. These computations, moreover, ignore the additional and potentially substantial cost reductions resulting from incremental shifts of some credit card charge volume (e.g., as rewards programs become less valuable) to lower cost payments like EFTPOS.

4.5 The “Two-Sided Price Level” Declined Significantly

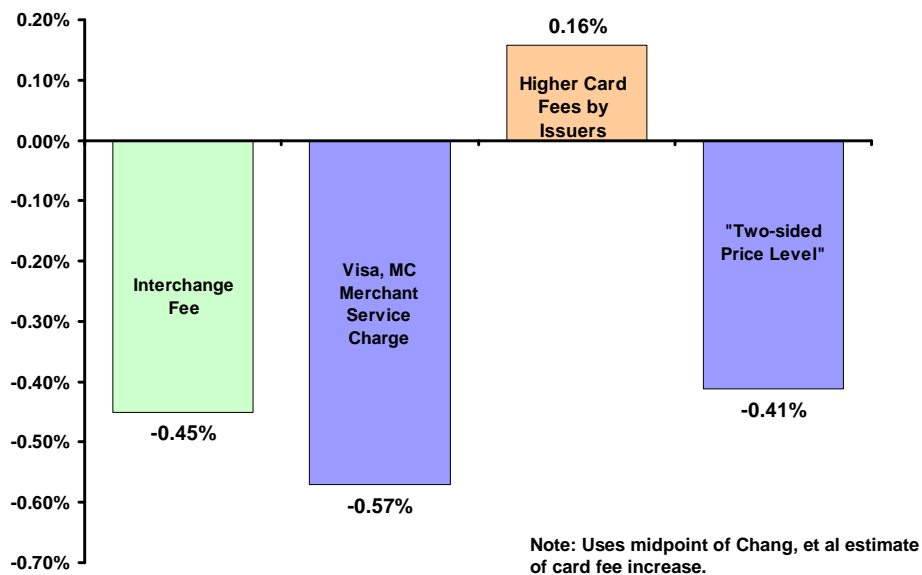
The card schemes sometimes suggest that changes in interchange fees are a zero-sum game: reductions in interchange fees cannot affect the relevant “price level” in this “two-sided market,” but instead can only shift costs from merchants to cardholders.⁶³ But this has not been the case in Australia.

<http://www.infochoice.com.au/banking/news/creditcards/05/12/article14190.asp>.

63. *See, e.g.*, the previous discussion of price structure and price level. *See also*, MasterCard, “Interchange Myths and Facts,” http://www.mastercard.com/us/company/en/newsroom/inter_myths_facts.html (“[M]erchants and their class action lawyers are attempting to use the legal system to shift costs from the merchant community to consumers.”); David S. Evans, “Bank Interchange Fees Balance Dual Demand,” *American Banker*, January 26, 2001 (“A zero interchange fee would shift \$14 billion of costs a year from merchants to cardholders in the United States alone.”)

Figure 13 shows the net effect that the reductions in interchange change fees have had on four-party scheme transactions through June 2007. As previously described, the interchange fee has now been reduced by 45 bp from the pre-reform level, which has so far generated a 57 bp reduction in the prevailing average Visa/MasterCard merchant service charge rate. According to Chang, et al, card issuers in Australia have recovered 30-40% of the lost interchange fee revenue by charging higher fees to cardholders.⁶⁴ If correct, that still leaves a net decline in the total “price level” equal to 60-70% of the reduction in the interchange fee, or roughly a 37 bp decline in the total price.

Figure 13
“Two-Sided Price” in Australia
Based On Chang, et. al Estimated Effects on Card Fees



64. Howard Chang, David S. Evans, And Daniel D. Garcia Swartz, The Effect of Regulatory Intervention in Two-Sided Markets: An Assessment of Interchange-Fee Capping in Australia, 4 Review of Network Economics 328 (2005), p. 339.

Recent RBA data appear to be consistent with Chang, et al's result that total fees have fallen.⁶⁵ By reducing the interchange fee, the total cost associated with conducting credit card transactions has declined.

4.6 Competition for "Revolvers" Intensified

Because interchange fees reward card issuing banks based on their success at recruiting high-spending cardholders, banks invested considerable effort at recruiting these high-spending "transactor" cardholders. The reduction of interchange fees altered bank incentives and spurred them to refocus their marketing efforts on revolver cardholders. As Visa's Bruce Mansfield explains:

[T]he most recent payments innovation in Australia has been low rate cards. Whilst rewards cards were targeted at transactors - people who pay off their card every month - low rate cards are targeted at revolvers - that is, people who do not pay their balance in full at month's end. Again, the move to cater for this market highlights a number of industry leaders with the vision and the willingness to change and who have subsequently forced a change in overall business models.⁶⁶

This intensification of competition among issuers generates additional benefits for the Australian public and directly contradicts warnings that reductions in

65. See, RBA data series C01 for credit card transactions and volume, F06 for cardholder credit card fees paid to banks, and C02 and C03 for merchant fees paid to banks and network shares of transactions.

66. Bruce Mansfield, General Manager, Australia & New Zealand, Visa International, "Regulatory change and market leadership," Address To Cards Australia Conference, Sydney, 17 August 2005. See also, e.g., "Banks vie for credit card share," Herald Sun, 14 February 2006 ("Australians have never had easier access to a credit card with banks undercutting each other in the battle for the consumer dollar... The central bank... said banks were keen to get more credit-card customers. As a result the mainstream banks, it reported, are offering lucrative deals with a much lower interest rate... The RBA said the new cards usually offered 9 to 13 per cent interest rates, compared with the usual standard of up to 17 per cent... 'It is absolutely easier for people get credit now, there's great competition' Ms Wolthuizen said. 'The mainstream banks are looking to win back market share that they have lost to the fringe institutions. They have introduced new products for people that are non-traditional borrowers.' Some banks, particularly Westpac, are also offering low rates for customers who take cards and transfer their balances from competitors.")

interchange fees would cause catastrophic disruption to the networks and harm to the public.

4.7 Claims That Merchants “Pocket the Savings” Are Unsubstantiated

The schemes and some of their consultants suggest that merchant cost reductions have not been passed along to consumers. They argue that the public has been harmed because cardholder fees have risen and merchants have not passed along their cost reductions.

MasterCard, for example, states:

In Australia, where interchange is now regulated, lower interchange fees have not led to lower prices for consumers...

In Australia and other nations that have gone this route, the result has not been lower prices. Instead, consumers have been forced to pay higher card fees and receive fewer rewards and benefits, while retailers have pocketed the savings attributable to lower interchange fees.⁶⁷

Visa states:

Merchants [in Australia]... have seen their cost of payment card acceptance drop some. But there is no evidence that they have passed this decrease in cost on to consumers in the form of lower retail prices. In fact, the Reserve Bank, which had promised that retail prices would decline as a result of its intervention, has given up trying to prove the existence of the promised decline.⁶⁸

This argument is inconsistent with two-sided market theory often advanced in defence of interchange fees. That is, merchants are one of the two sides, and if one is to take two-sided market theory seriously, the welfare of and cost to both sides should be considered – both merchants as well as cardholders.

Of course, a reduction in the marginal cost of selling goods and services throughout the entire merchant sector of the Australian economy can be expected not

67. “Interchange Myths and Facts,” *supra* note 63 (emphasis added).

68. Testimony of Joshua R. Floum, Executive Vice President, General Counsel and Secretary, Visa, U.S.A., Before the United States Senate Committee on the Judiciary, “Credit Card Interchange Rates: Antitrust Concerns?” July 19, 2006.

just to benefit merchants, but also the merchants' customers. Recall that the schemes sometimes argue that competition among banks ensures that any excess interchange fee revenue will be rebated to cardholders. Yet, although the schemes sometimes argue that while banks will pass all of the interchange fee proceeds to cardholders, they simultaneously argue that merchants will pass none of the reductions in interchange fees to consumers in the form of lower prices. As a matter of economic theory, even a monopolist will generally be expected to pass along at least some portion of a reduction in marginal costs.

The RBA explains that the small but significant and comprehensive cost reduction can be expected to be reflected in lower retail prices to all customers.

Rochet and Tirole agree:

Merchants are likely to pass the extra costs, if any, of card transactions through to consumers in general, that is to cardholders and cash payers altogether...

Merchants are likely to pass through cost increases into the retail price...⁶⁹

As the RBA notes, the price declines would be expected to be spread throughout the entire retail economy, and such small (but, in the aggregate, significant) changes in cost and price would be expected to be overshadowed in macroeconomic data by ordinary month-to-month fluctuations in retail prices, making statistical detection of the expected price effects difficult.⁷⁰

69. Jean-Charles Rochet and Jean Tirole, Externalities and Regulation in Card Payment Systems, 5 Review of Network Economics 1 (2006), pp. 4, 6.

70. Reserve Bank of Australia, Payments System Board, 2005 Annual Report, p. 11. Reductions in marginal cost, such as occurs with the reduction of interchange fees, typically result in lower prices. See, e.g., U.S. Dep't of Justice & Federal Trade Commission Commentary on the Horizontal Merger Guidelines 57 (Mar. 2006), ("Economic analysis teaches that price reductions are expected when efficiencies reduce the merged firm's marginal costs, i.e., costs associated with producing one additional unit of each of its products.").

The fact that it is difficult to demonstrate these price effects throughout the economy econometrically does not mean that they do not exist. MasterCard is wrong to contend that the difficulty of measuring relatively small price declines is proof of their absence.

4.8 It is Sensible for the RBA to Adopt a Competitive Settlement Environment With No Default Interchange Fee

Claims that the RBA interchange fee reforms would lead to disaster have proven to be in error. The networks continue to function well, issuers continue to issue credit cards, consumers continue to carry credit cards, and merchants continue to accept credit cards. The main difference is that the net cost of accepting credit card payments in Australia has decreased and continues to decrease (on a percentage of sales basis).

Although there might be a sound theoretical basis for fine-tuning retail prices according to differences in retail costs associated with particular transactions, it is sensible to leave it to individual merchants in a deregulated marketplace to make those judgments unless there are compelling reasons otherwise.

There is no more historical, conceptual or factual support for a continuation of a percentage credit card interchange fee at the current level than there was at the previous level.⁷¹ The RBA should therefore continue in its reform of interchange fees by adopting a par default interchange system, and get the schemes out of the business of regulating retail payment prices in Australia.

5. “Cost-Based” Interchange Fees As Fall-Back Policy

Visa and MasterCard have both claimed that interchange fees were designed to allow issuers to recover certain specific, identifiable costs which were incurred for

71. I will discuss scheme debit and EFTPOS transactions in Section 6.

the benefit of merchants. The schemes have distanced themselves from these claims in recent years, perhaps because there is no persuasive economic case for why merchants should bear costs such as the interest free period, fraud losses, credit losses or processing costs incurred by card issuers.

The interest-free period, for example, has been cited as an appropriate element of an interchange fee on the grounds that card issuers relieve merchants from the cost of providing their customers with this benefit. This is not sufficient grounds to support recovering this cost through an interchange fee.

- The interest-free period likely originated as the result of significant transaction costs which would have been incurred by merchants (prior to the computer age) to compute and charge their customers intra-month interest, particularly when interest rates were relatively low. Its continuation is a matter of competition and consumer preferences.
- It is an obvious benefit to consumers to receive an interest-free loan. Whether this loan is provided to consumers and for how long is a decision controlled entirely by card issuers – not merchants – although merchants are allegedly paying for the loans through interchange fees. Generally, efficiency is enhanced when the party which makes the decisions bears the resulting costs.
- When merchants offer an interest-free period in their own credit programs, they also own the programs and obtain finance charge revenue when cardholders revolve balances in those programs.
- With the advent of online technology and EFTPOS transactions, it is now possible for “transactors” to impose lower costs on banks by having the funds for the payment debited from their current account directly and immediately, rather than waiting to remit a payment at the end of a billing cycle. If a bank nevertheless wishes to allow its customer an extended, interest-free period before supplying funds for the transaction, that decision should be a matter between the bank and its cardholder customer.

There is thus no sound theoretical basis for recouping the costs associated with interest-free periods through an interchange fee charged to merchants.

A payment guarantee is said to be provided to merchants insofar as a merchant who follows procedures and receives an authorization to complete a transaction receives funds even if the issuing bank never collects funds from its cardholder for

that purchase, either because the transaction was fraudulent or because the consumer defaults on a credit obligation. The payment guarantee might facilitate trade (i.e., reduce transaction costs which benefits both buyers and sellers), but that does not logically support an argument that merchants should bear the costs of cardholder default or fraud, let alone that those costs should be recovered through collective or centrally fixed interchange fees.

- A payment guarantee benefits consumers along with merchants. A consumer, for example, can travel to a distant city, rent a car, stay at a hotel, and pay for meals, due to the authorizations supplied to the merchant on the cardholder's behalf (and on behalf of the issuer, which stands to earn a return on its credit card lending operations).
- A sensible, general principle when two sides benefit in a situation like this is that the party which has the most control over the costs should be the party which bears those costs. The card issuing bank has complete control over the issuing of cards, granting of credit, and authorizing transactions. The merchant cannot control any of these factors. For example, as Evans and Schmalensee explain, "it is reasonable to make card issuers primarily liable for card theft if it is easier for issuers to develop methods to prevent fraud than for consumers to take additional steps to prevent their wallets from being stolen."⁷²
- An interchange fee provides an incentive to banks to serve riskier customers, extend riskier credit, and authorize riskier transactions.
- An EFTPOS transaction is less risky than a credit (or scheme debit) transaction, but scheme interchange fees encourage use of the riskier technologies.
- Fraud and credit losses incurred by banks as a result of the payment guarantee are cited as reasons why credit card interest rates are relatively high. This is sensible; credit card loans are not risk-free. But if high finance charge rates cover fraud and credit losses (as well as the interest-free period), there is no justification to charge merchants for those losses as well.

There is thus no persuasive economic case for recovering these costs from merchants. By contrast, it is likely more economically efficient for issuers to bear

72. Evans & Schmalensee, NERA (1993), p. 109.

these costs and recover them from the revenue they earn from their own customers relationships.

6. EFTPOS and Scheme Debit Cards

So far, I have mostly discussed issues surrounding the use of interchange fees in credit card schemes, and the RBA's reduction of those credit card interchange fees. The same general principles apply as well to debit cards. There is no sound historical, conceptual or empirical basis upon which to mandate default interchange fees in debit card networks. To the extent that there is theoretical support for the possibility that debit interchange fees might improve economic efficiency, merchants are in the best position to determine whether that is desirable in practice.

Debit card systems provide the clearest illustration of the distortions and inefficiencies caused by interchange fees. In Australia, like the United States, there are both online debit (EFTPOS) and offline (scheme) debit cards and transactions. Both types of transactions transfer funds from the cardholder's account to the merchant's account, but the online systems do so faster, more safely, and more efficiently.

In both the United States and Australia, however, banks prefer and sometimes encourage their customers to make offline debit transactions even when the merchant is fully capable of accepting EFTPOS transactions. For example, Westpac has promoted use of its MasterCard debit card functionality even where both scheme debit and EFTPOS transactions can be accepted. ["Press 'credit' for your chance to win a share of \$30,000. Each month, for 6 months we're giving away 5 prizes of \$1,000

each. To be in the running, simply use your Debit MasterCard and press 'credit' every time you make a purchase.”⁷³

The reason Westpac tries to steer its customers to push the “credit” button is that scheme debit transactions were developed to piggyback on the credit card network, and Westpac and other issuing banks receive an interchange fee when the customer makes an offline scheme debit transaction, but (in Australia) pay an interchange fee when the customer chooses to make an EFTPOS transaction.

Interchange fees, in other words, cause an inefficient distortion.⁷⁴ Without interchange fees for either EFTPOS or scheme debit transactions, issuers and merchants would encourage use of one network or the other only to the extent that those networks generated true economic benefits, not in response to distortionary subsidies generated by interchange fees. Although it is conceivable that banks and merchants might have different preferences concerning which network to use in the absence of interchange fees, there is no evidence that this is the case, or that interchange fees have resolved such a problem rather than *created* that very problem. For example, in the absence of interchange fees, it is likely that both banks and merchants would prefer online debit to offline, where both are feasible, because of its superior security and speed.

Although warnings of a death spiral destroying the credit card schemes were unfounded, there is a reason to be concerned that the interchange fee system can cause the demise of efficient, low cost online debit networks in favour of less efficient and

73. Promoted on <http://www.westpacinfo.com.au/debitmastercard/how.htm> in early 2007.

74. Scheme debit, however, may have advantages for certain transactions (e.g., card not present). With no interchange fees on either EFTPOS or scheme debit, network choice will be driven by efficiency considerations alone, not distorted by banks chasing interchange fees. It will also be easier, for example, for a merchant to encourage EFTPOS when the cardholder isn't being persuaded by an issuer to press “credit” on the basis of higher interchange fees.

more costly scheme debit transactions. This has, in fact, already occurred in some European countries; banks had little incentive to standardize their national online debit networks (which had no interchange fee or small interchange fees) when they could instead migrate to the international scheme debit networks, with much higher interchange fees.⁷⁵

The danger that the card schemes and banks will have an incentive to pursue inefficient and expensive options and encourage their customers to do the same will be greatly lessened with the elimination of interchange fees.

7. Potential Concerns With Scheme Fees

There are at least two concerns relating to scheme fees: the possibility that the schemes could create a “backdoor” interchange fee by charging higher fees to merchants (collected via acquirers) and then rebating those fees to card issuers for “marketing support” or other purposes; and the possibility that the schemes will replace interchange fees with higher scheme fees which they will keep for themselves, now that they have adopted (in the case of MasterCard) or are adopting (in the case of Visa) an independent, for-profit corporate structure.⁷⁶

These concerns might be addressed by ensuring that the schemes do not charge negative effective fees to issuers (which may require more transparency in the fee collection and distribution process), preventing the schemes from adopting (or maintaining) for-profit corporate structures, and eliminating vertical restrictions on

75. For merchants’ perspective on this problem in Europe, *see, e.g.*, <http://www.eurocommerce.be/content.aspx?PageId=39895> (“[A] worrying trend, which emerged in previous years and intensified throughout 2006, is the takeover of efficient and cheap national debit schemes by MasterCard and Visa debit schemes (Maestro and V Pay”).

76. The schemes themselves formerly defended their practices on the basis that they were not-for-profit joint ventures, which they claimed meant that they could not harm the public. They now are abandoning that structure.

merchants, processors and banks. They might also be addressed by allowing multi-network cards as discussed in Section 9.3.

8. The Treatment of “Three-Party” Card Systems

Perhaps the schemes’ most frequently voiced complaint about the RBA reforms is that the RBA has not treated the three-party card systems in a symmetric way. American Express and Diners Club, allegedly can use their higher, unregulated merchant fees to steer more credit card transactions to their networks. The extreme version of this complaint is Mr. Hanft’s contention that the reduction in interchange fees has harmed *merchants*.

At the outset it is worth noting that it is not in the interests of merchants to have their overall payment costs increase due to the supplanting of MasterCard and Visa by an unregulated American Express. American Express, on the other hand, would logically prefer a situation in which, as MasterCard and Visa claim, the effect of the regulation is to benefit American Express. Yet it does not appear that American Express has supported intervention to reduce interchange fees. The reason is likely that reductions in MasterCard and Visa interchange fees have caused American Express fees to decline as well.

One cannot rule out on theoretical grounds alone that three-party card systems might attain a larger share and maintain persistently high merchant fees, but there are several policy options available to address concerns over three-party systems. One has already been achieved – the retraction by American Express of restrictions on surcharging and differential treatment by merchants of American Express transactions. The RBA has reported that a variety of merchants have imposed surcharges on American Express, apparently resulting in some instances in negotiated

reductions in the fees American Express charged to those firms. Other options available to the RBA include the following:

- American Express net payments to bank issuers could be limited to the same degree as the RBA limits interchange fees charged for MasterCard and Visa transactions (if any). The main remaining problem would be how to treat network fees, which becomes relatively more important as interchange declines or is eliminated.
- Most or all remaining vertical restrictions on merchants could be eliminated. Vertical restrictions on banks could also be eliminated. This possibility is discussed more in Section 9.
- While MasterCard and Visa often argue that they should be permitted to act like American Express, in reality the ideal situation would be one in which MasterCard and Visa shed their dysfunctional attributes and became highly efficient four-party card schemes, and American Express became more like the four-party card schemes. The American Express structural problem – to the extent it becomes significant – arises because American Express maintains a vertical monopoly bottleneck in the acquiring of American Express transactions: it does not permit competing acquirers for American Express transactions. If it did, then it could be treated in an entirely symmetric way with MasterCard and Visa.
- It would be ironic and unfortunate if the public would be better served by banning American Express from Australia because no other structural or behavioural remedy was deemed sufficient. But it should not be overlooked that this is an element of a potential solution should the three-party problem become significant. American Express could be offered the choice of leaving the Australian market or opening its acquiring side and becoming a four party system – without an interchange fee. (I do not know whether such an alternative would fall within the RBA’s authority, but it remains an option even if such would require legislative changes.)

9. The Elimination of Structural Impediments to Competition

The card schemes maintain an elaborate set of rules and regulations which restrict the behaviour of banks and merchants. At least some of these, individually and collectively, reinforce dysfunctional, inefficient and anticompetitive effects in the payments markets.

9.1 Elimination of the No-Surcharge Rules

As already explained, the RBA's decision to eliminate no-surcharge rules is consistent with sound economic logic and the conceptual justifications for interchange fees. The ability to charge different prices based on different costs is the most direct and important form of merchant steering, which can induce consumers to internalize the costs of their payment choices. As explained by MasterCard consultant C.

Christian von Weizsäcker:

Price competition of payment systems for merchants is enhanced by the fact that surcharges (and cash discounts, etc.) are possible. From the point of view of the payments system, surcharging of the system by many merchants is to be avoided. The attractiveness of cards among cardholders is negatively affected by widespread surcharging... Therefore the risk of increased surcharging after an increase of fees is one of the most powerful forces to keep merchant fees low. We would expect that actual surcharging is rather infrequent because payment systems have a great interest to avoid merchant surcharging of their system. But nevertheless, merchants' right to surcharge imposes substantial downward pressure on merchant fees.⁷⁷

9.2 Honour All Cards Rules

As a general matter, there is no sound rationale for maintaining restrictions on the ability of merchants and their customers to conduct trade in an unregulated way on whatever price and other terms they see fit (consistent with other laws and regulations). For example, merchants in the United States routinely determine unilaterally whether to accept checks. If they decide to do so, they determine whether to accept all checks or just checks from customers who reside in certain locations, and they determine what fees, if any, to charge to customers whose checks are returned unpaid by their banks.

77.http://www.rba.gov.au/PaymentsSystem/Reforms/CCSchemes/ResponsesConsultDoc/mastcard_0302_3.pdf, ¶55. Professor Weizsäcker claims that cash discounts are similar to credit card surcharges, but cash discounts do not permit the kind of interbrand competition which results from differential surcharges as occurs sometimes in Australia, with higher surcharges for more expensive cards.

The schemes frequently argue that it is a fundamental characteristic of card networks that any customer carrying a card with the network's trademark will know with certainty that the card will be accepted. Although it may be a benefit to know that any Visa branded card will be accepted by any merchant displaying the Visa trademark, such benefits must be weighed against the costs to competition which also result from an honour all cards rule. Given the problems with maintaining competitive payment markets, every possible competitive tool is needed by merchants to steer their customers towards preferred payment methods. Relaxing the honour all cards rule is one such competitive tool. A merchant should have unbridled freedom to decline cards based on the level of interchange fee, the size of the transaction, or any other factor of its choosing, consistent with any other applicable laws or regulations.

Card schemes in recent years have driven increases in interchange fees in part by introducing higher interchange fee tier cards, and requiring merchants to accept these higher cost cards. Merchants should be able to decline such higher fee card types. Schemes would have to find ways to provide additional value to merchants if some cards carry high additional fees – or lower those fees.

Another potentially problematic aspect of the honour all cards rule is that it compels a merchant to accept all cards displaying the brand irrespective of the identity of the issuing bank. (As previously explained, the schemes then use the existence of this rule to explain why interchange fees need to be fixed centrally.) This aspect, too, might have benefits, but it might also have costs which exceed those benefits. Although most merchants would probably not be interested in picking and choosing from among credit cards if there were no interchange fees or other competitive restrictions, in the presence of those fees and restrictions merchant should be given every possible opportunity to create more competitive payment markets.

9.3 Multi-Network Cards and Interoperability

In the U.S. litigation challenging the aspect of the honour all cards rule which required acceptance of scheme debit cards along with scheme credit cards, an important competitive feature in the marketplace was the existence of multi-branded debit cards. These cards could utilize either the scheme offline debit network or an online debit network – and often more than one online network – to connect a given merchant to a given current account.

A fundamental problem with single-network credit and debit cards is that the merchant risks losing profitable retail sales if a brand is refused, and the cardholder has only that brand (or, due to the effects of interchange fees, has a strong preference to use a particular card which carries only one branded network). As Tim Muris recognized, merchants end up accepting all major card brands while merchants must act as if consumers carry a single card brand.⁷⁸ Each network thus becomes a competitive bottleneck.⁷⁹

The existence of single-homing cardholders and multi-homing merchants permits the schemes to profitably maintain high interchange fees. Many of the competitive restrictions imposed on merchants (and some on banks) can be

78. Timothy J. Muris, Payment Card Regulation and the (Mis)application of the Economics of Two-Sided Markets, 2005 Columbia Business Law Review 515 (2005), p. 522 (“Most merchants... cannot accept just one major card because they are likely to lose profitable incremental sales if they do not take the major payment cards. Because most consumers do not carry *all* of the major payment cards, refusing to accept a major card may cost the merchant substantial sales.”).

79. Jean-Charles Rochet and Jean Tirole, Externalities and Regulation in Card Payment Systems, 5 Review of Network Economics 1 (2006), p. 8 (“Intuitively, under single-homing, each system holds a monopoly of access to its own cardholders (in the same way each telecom operator enjoys a monopoly over the termination of calls made to its subscribers). Thanks to this competitive bottleneck, it can ‘charge’ a monopoly merchant discount.”)

understood as efforts to prevent the competitive erosion of this regime in which each network, in effect, has monopoly power over merchants.⁸⁰

If banks belonged to multiple networks, and merchants – who pay network interchange fees – were free to choose the network over which to process, clear and settle a transaction, then the principal-agent problem (in which issuers and cardholders choose the network and merchants pay the resulting fees) could be solved. That is, one of the primary theoretical justifications for interchange fees is that cardholders choose the payment method, but merchants have to pay the resulting network fees. Since merchants are the ones paying the fees, economic efficiency can be enhanced through any method that gives merchants more control over which network is used.

There are impediments to this kind of competitive network services market. For example, the schemes (and American Express) have restricted the issuance of multi-branded cards and created a situation in which competition is aimed at offering fee revenue to issuers and rebates to cardholders, but not lower fees to the party paying those fees.

The European Commission recently raised the idea of permitting multi-branded cards. Visa criticised the idea as inherently anticompetitive and harmful, while offering no persuasive explanation why this might be so.⁸¹ It is not obvious how a bank's ability to issue a single card which could route a transaction seamlessly

80. This situation is very different from the competitive network environment which eroded and mostly eliminated interchange fees in earlier check markets. See, Alan S. Frankel, *Monopoly and Competition in the Supply and Exchange of Money*, 66 *Antitrust Law Journal* 313 (1998).

81. European Commission, Competition DG, *Financial Services (Banking And Insurance), Interim Report I: Payment Cards, Sector Inquiry On Retail Banking, Under Article 17 Regulation 1/2003*, 12 April 2006, pp. 121-22; Visa Europe, *Response To The Consultation On The European Commission's Interim Report I: Payment Cards*, 21 June 2006, pp. 33-34.

over two or more networks would harm competition; instead, this ability could transform the marketplace into one in which the networks focused on delivering the best service at the lowest prices.

One problem with multi-network cards could be banks' unwillingness to continue participating in multiple networks.⁸² But competition could overcome this problem. A bank might find it a successful strategy to offer multiple branded cards, especially if there are some merchants that wish to decline some brands. By prohibiting multiple branded cards, the schemes and American Express prevent this type of merchant steering and procompetitive behaviour. The way the market is organized now, MasterCard and Visa have effectively divided the merchant acquiring and network services markets in such a way that merchants have no real choice over the network when a cardholder presents a card at the point of sale.

9.4 Eliminating Vertical Restrictions is Sensible and Important, Whether or Not Interchange Fees Are Eliminated

There are good reasons why competitive restrictions should be removed even if interchange fees are eliminated.

- The card schemes have erected restrictions which have reinforced their ability to collect interchange fees. The interchange fees have then further reinforced their market power and cardholder “single-homing” behaviour by making consumers more loyal to particular networks which connect their account to their merchant.
- The card schemes are becoming for-profit independent enterprises. MasterCard has already completed its transformation. The schemes have argued that non-profit status reduces competitive concerns, indicating that a shift to for-profit status will increase competitive concerns, including concerns about the schemes' vertical restrictions.

82. Visa, for example, has induced some U.S. banks to issue only Visa (and Visa-owned Interlink) branded cards. If one or more large issuers only issues cards with a particular brand, it makes it very difficult for a merchant to drop acceptance of that brand. This makes it easier for other banks to continue issuing cards of that brand.

- Even if interchange fees are eliminated, there is a danger that the schemes will be able to use their ability to set high scheme fees to either create a substitute for current interchange fees, or for their own profits. Removal of vertical restraints will help prevent such actions.
- The only constraints on scheme fees currently are the RBA's regulation and competition between networks. But restrictions on merchants, on multi-network cards and network bypass severely reduce the intensity of inter-network competition.
- Enhancing merchants' ability to steer or choose the network for which they pay fees will create more effective inter-network competition and will prevent the networks from dividing the merchant market among them. More effective network fee competition will be the likely result.

10. Conclusion

The RBA should be commended for its long and careful analysis of the Australian card payment systems, and its willingness to act in the face of strident protests and warnings about network chaos. The RBA has demonstrated that payment card systems are robust enough to operate in a more competitive environment with lower interchange fees – contrary to the claims of the card schemes. As long as consumers find an attached line of credit on a payment card to be useful, and banks seek to lend to such consumers, there is little reason to worry that credit cards will disappear without interchange fees. Appropriate policy remedies exist to address any potential shift of transactions to American Express, and such remedies should be pursued.

The RBA should indeed eliminate interchange fees, but if the RBA chooses to permit the continued collection of interchange fees, it should seek answers to at least the following important questions:

- Should interchange fees be a fixed amount or a percentage of the transaction amount?
- If the usage externality is considered important, is there a way to give merchants, as the parties affected, more say in the level of the fees?

- Is it appropriate to measure the costs incurred by issuers as a result of their unilateral decisions to offer features or take risks and use such measurements to assess interchange fees?
- Are the benefits – if any – resulting from vertical restrictions imposed on banks and merchants provable, and do they outweigh any anticompetitive or inefficient effects?

As it addresses these and other questions, the RBA should be sceptical of claims that intrusive competitive restrictions or pricing regulation are essential, or that this market is far too complicated, delicate, and fragile to survive what, in fairness, should be deemed the RBA's *deregulatory* efforts to undo the harmful effects of longstanding industry self-regulation.

Appendix A: About the Author

ALAN S. FRANKEL

Lexecon
332 S. Michigan Avenue, Suite 1300
Chicago, Illinois 60604
Tel. (312) 322-0248
Fax (312) 322-0218
afrankel@lexecon.com

EDUCATION

UNIVERSITY OF CHICAGO, Chicago, Illinois
Ph.D., Economics, December 1986.
M.A., Economics, March 1985.
B.A., Economics, March 1982.

PRESENT POSITIONS

LEXECON, Chicago, IL.
Senior Vice President, 2004 – Present.
Vice President, 1989 - 1996.
Economist, 1985 - 1989.
ANTITRUST LAW JOURNAL, April 1996 - present.
Senior Editor, 1999 - present
Associate Editor 1998 - 1999
Assistant Editor 1996 - 1998

PROFESSIONAL AND ACADEMIC EXPERIENCE

LECG, Evanston, Illinois.
Director (new title structure), 1998-2004
Principal (new title structure), 1996-1997
UNIVERSITY OF CHICAGO, GRADUATE SCHOOL OF BUSINESS, Chicago, IL, 1983 - 1984.
Research Assistant
UNIVERSITY OF CHICAGO, COMMITTEE ON PUBLIC POLICY STUDIES,
Chicago, IL, 1983
Teaching Assistant
UNIVERSITY OF CHICAGO, DEPARTMENT OF ECONOMICS, Chicago, IL, 1980 - 1982.
Research Manager for U.S. Environmental Protection Agency contract research project.
Various consulting work, including National Association of Realtors and Synergy Inc., 1981 - 1983.

FIELDS OF SPECIALIZATION

Industrial Organization, Antitrust, Intellectual Property, Applied Econometrics, Regulation, Financial Institutions, Payment Systems, Damages.

PUBLICATIONS

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SPEECHES

"Evaluating Self-Regulation of Interchange Fees," Organization for Economic Cooperation and Development, Paris, France, June 2006.

"A More Competitive, Deregulated Market Structure: The Role of Networks vs. the Role of Banks," International Cards & Payments Council, Rome, Italy, October 2005

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Columbia University School of Law, *Conference on Two-Sided Markets*, April 2005.

Chicago Bar Association Antitrust Committee speaker, *Credit Card Issues*, February 2002.

“Anticompetitive Effects of Interchange Fees,” Econometrics Society Australasian Meetings, Auckland, New Zealand, July 2001

American Bar Association Antitrust Section, Financial Markets Committee *Brownbag Seminar* on interchange fees, Washington, DC, March 2001

“The Economic Analysis of Intellectual Property Damages,” Panel discussion moderator, Chicago, Illinois, October 1998

Spring Antitrust Developments panelist, Vedder, Price, Kaufman & Kammholz, P.C., May 1997.

Credit Card Pricing and Competition: The Environment Today and Future Marketplace and Regulatory Trends, before the American Bar Association, Consumer Financial Services Committee, November 1995

“Antitrust and Payment Technologies,” presented at Antitrust and Payment Systems, Federal Reserve Bank of St. Louis, May 1995

FELLOWSHIPS

Olin Foundation Fellowship, Center for the Study of the Economy and the State, Graduate School of Business, University of Chicago, 1984.

University of Chicago Graduate Economics Fellowship, 1982 - 1984.

PROFESSIONAL AFFILIATIONS

Member, American Economic Association, 1984 - present.

Associate Member, American Bar Association, 1991 - present. (Section of Antitrust Law, Section of Intellectual Property Law)

TESTIMONY AND OFFICIAL PROCEEDINGS

Brief of Evidence, in New Zealand Commerce Commission v. American Express International (NZ) Incorporated

Testimony before the European Commission in MasterCard.

Brief of Evidence, in New Zealand Commerce Commission v. Westpac Banking Corporation, District Court, Auckland, New Zealand.

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Declaration in David Salkin v. MasterCard International, Court of Common Pleas, Philadelphia

County, Pennsylvania.

Report in CFS-Related Securities Litigation, U.S. District Court, Northern District of Oklahoma, and District Court for Tulsa County, State of Oklahoma.

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Report and Trial Testimony in Enrique Calva-Cerqueira v. United States of America.

Report, Deposition, Amended Report, and Direct Testimony in Charter Federal Savings Bank v. United States of America

Declaration, Deposition, Trial Testimony, and Rebuttal Testimony in Adam Schwartz vs. Visa International, Inc., Visa International Service Association, Inc., Visa USA, Inc., and MasterCard International, Inc.

Report in Cardiac Pacemakers, Inc., Guidant Sales Corporation, and Eli Lilly and Company v. St. Jude Medical, Inc., Pacesetter, Inc., and Ventritex, Inc.

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Affidavit in Century Shopping Center Fund I, Limited Partnership v. Frank Pio Crivello

Report and Deposition in Gregory F. Daniel, et al. v. American Board of Emergency Medicine, et al.

Report and Declaration in 1st Home Liquidating Trust v. Unites States of America

Report and Deposition in Pi Electronics Corp. v. United States of America

Report in WDP Limited v. Gelatin Products International, Inc. and R.P. Scherer Corp.

Joint Declaration, Joint Report, Deposition, Trial Testimony, and Rebuttal Testimony in C. Robert Suess, et al. v. United States of America.

Declaration and Supplemental Declaration in Robert Johnstone, et al. v. First Bank National Association, et al.

Testimony in Keisha Johnson, Shapearl, et al. v. Aronson Furniture Co. and Heilig-Meyers Co.

Report, Deposition and Trial Testimony in ProtoComm Corporation v. Novell Advanced Services (Formerly Fluent)

Joint Affidavit in Kahn v. Emerson Electric Co., Hazeltine Corporation and Motorola, Inc. et al.

Affidavit, Deposition and Trial Testimony in Masco Corporation of Indiana v. Price Pfister, Inc.

Deposition in Loomis Armored, Inc. v. City of Chicago.

Joint Declaration, Joint Reply Declaration, and Joint Supplemental Declaration in the Matter of Mahurkar Double Lumen Hemodialysis Catheter Patent Litigation.

Deposition in American Fidelity Fire Insurance v. General Railway Signal Corp.

Deposition in General Farebox, et al. v. Landa Corp., et al.

Affidavit in Lincoln Savings & Loan Association v. Federal Home Loan Bank Board and M. Danny Wall.

OTHER

FAA-certified private pilot

PADI-certified open water diver

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