

Towards a Competitive Card Payments Marketplace

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I. Introduction

There has been an explosion of interest and concern about the competitive economics of credit and debit card networks, and, in particular, competitive restrictions which significantly increase the cost merchants incur when accepting card based payments. Merchants around the world, joined often by central banks or competition authorities, have complained about pricing and vertical restrictions imposed by card networks which, the merchants contend, have led to anticompetitively high costs of acceptance for retail debit and credit card transactions.

Interchange fees collected in connection with card transactions have been at the centre of many of these complaints.¹ Interchange fees established by multi-bank

1. MasterCard identifies legal or regulatory actions in Australia, Brazil, Colombia, the European Union, Germany, Hungary, Mexico, New Zealand, Poland, Portugal,

card schemes “are generally the largest component of the costs that acquirers [merchants’ banks] charge merchants in connection with the acceptance of payment cards.”² In the United States alone, merchants complain that they now remit over \$30 billion (USD) in interchange fee payments annually.³ Aggregate interchange fee payments have grown rapidly due to economic growth, increased use of card payments, and the use of *ad valorem* (percentage of sale value) rates as the principal component of interchange fees. In some regions, including the United States, the card schemes have also significantly increased their interchange fee rates.⁴

It is accepted both by critics of interchange fees and defenders of those fees that merchant fees are high because merchants tend to find it unprofitable to avoid accepting branded cards of each of the leading card networks; i.e., the elasticity of demand for each brand of merchant card acceptance services is low. Visa explains:

In deciding whether to accept a particular card, each merchant has to keep in mind that, if the card is not accepted, they will:

- save a small percentage (the merchant service fee) on each sale to customers who would still purchase with another form of payment that was cheaper for the merchant to accept; and
- lose a much bigger percentage (their profit margin less the merchant service fee) on those customers that choose to purchase from their rival which does accept their card, as well as those customers who do not have any other acceptable form of payment, and those customers who have to reduce the size of their purchase due to constraints on their availability of funds at the time of purchase.

Weighing up these factors, merchants will often accept cards even where transactions using these cards are more expensive than some other form of payment that consumers have access to.⁵

Singapore, South Africa, Spain, Switzerland, the United Kingdom, and the United States. MasterCard 2006 SEC Form 10-K, pp. 24-25, 117. Visa similarly identifies “Global Interchange Proceedings” in these jurisdictions, plus Norway, Romania and Sweden. Visa Inc., Amendment Number 5 to SEC Form S-4 Registration Statement, 9/13/07, pp. 10, 167.

2. MasterCard 2006 10-K, p. 24.
3. <http://www.unfaircreditcardfees.com/>. As I explain below, the total financial impact is greater than the explicit remittance of interchange fees, because high interchange fees permit vertically integrated card networks such as American Express to maintain significantly higher merchant fees as well.
4. The main recent exception was a one-time reduction in MasterCard and Visa’s signature authorized debit interchange rates as a result of the settlement of antitrust litigation concerning the tying of credit card acceptance to debit card acceptance. “What Debit Settlements Really Mean to Issuers,” *American Banker*, May 2, 2003.
5. Visa International Service Association and Network Economics Consulting Group Pty Ltd., *Delivering a Level Playing Field for Credit Card Payment Schemes: A study of the effects of designating open but not closed payment schemes in Australia*, August 2001, p. 29.

A merchant losing even a few sales as a result of refusing a costly brand of payment card may find it more profitable to pay the higher card acceptance fees on transactions made using that card brand. Merchants risk losing sales, in turn, because not all consumers carry cards which can access all branded networks, and consumer preferences to use particular payment cards are intensified through loyalty and other programs funded with a portion of the fees paid by merchants.

Banks have organized networks in which they use interchange fees both to collectively increase merchant fees and to reinforce the inelastic nature of merchant demand for card services – which permits further collective fee increases. The rebates and rewards funded by interchange fees and offered to card users act like a systematic form of commercial bribery (albeit, undertaken in plain view). Rebates to cardholders exploit a principal-agent problem in which the card customer chooses the form of payment – and the bank chooses or influences which brand – based in part on the value of rewards, while the bank collects the resulting fees from the merchant. Moreover, the merchant’s ability to get the consumer to internalize the merchant’s differential costs across payment types is substantially restricted by network rules.

Critics see the use of interchange fees to exploit inelastic merchant demand as an exercise of collective market power by members of a bank cartel operating openly through networks appointed by the banks to administer the arrangement. After all, if banks accepting credit card transactions from merchants simply agreed to charge merchants a specified minimum fee, such an agreement would very likely be condemned as *per se* price fixing, irrespective of the effectiveness of the cartel agreement and the extent to which the cartel pricing induced rebates to merchants in the form of price cuts or non-price rebates. Similarly, if card issuing banks simply agreed to charge their own customers a fixed transaction fee of, say, 1.75% on every transaction, such an agreement would likely be condemned whether or not the individual issuing banks undermined the profitability of the cartel price through rebates and rewards to cardholders.

Interchange fees, in this context, can be seen as a clever agreement to raise merchant fees, but distribute the revenue in a way that is more stable and less susceptible to competitive erosion than would an agreement among banks simply to raise fees collected directly from their own customers.

Supporters of interchange fees, on the other hand, contend that using interchange fees to increase merchant fees above the decentralized competitive level which independent banks would charge merely enacts for the decentralized network what an integrated card network would impose unilaterally. In this view, there is nothing concerning about members of the banking industry acting jointly to increase prices to merchant customers to take advantage of the merchants’ inelastic demand. Indeed, they embrace this effect as achieving efficiencies by shifting costs from customers with relatively elastic demand (cardholders) to customers with relatively inelastic demand (merchants) in a manner analogous to Ramsey pricing for optimal collection of tax revenue or recovery of fixed costs in regulated natural monopoly markets.⁶ Alternatively, they appeal generally to the benefits generated from the

6. At least in some regions, including the United States, the networks have gone beyond using the interchange fee system to exploit inelastic merchant demand generally, and have implemented a complex and highly detailed price discrimination system in which the

exploitation of positive network externalities or the alleged solution of merchant cost externalities to justify the continued use of interchange fees.

Of course, a monopolist able to do so also will seek to price discriminate, charging higher prices to customers with inelastic demand and lower prices to customers with elastic demand, all else equal. In the case of optimal taxation or recovery of fixed costs to fund a natural monopoly, there is an exogenous requirement to raise revenue not generated through marginal cost pricing, and the idea is to minimize the social welfare losses associated with raising this fixed amount of revenue. In credit card and debit card markets, by contrast, the interchange fee revenue goes neither to the state nor to a natural monopoly network, but rather to individual card issuing banks, which the networks contend are numerous (in many countries) and highly competitive.

The low merchant elasticity of demand for card acceptance services which, it is argued, explain and justify interchange fees and high merchant fees, is not exogenous and inevitable, but instead results from the nature and structure of the competitive institutions in the marketplace. These institutions include comprehensive bodies of rules and restrictions, enforced by networks, which limit merchant choices. With few exceptions, merchants cannot smoothly vary their relative consumption of card services across networks as the relative fees charged by those networks vary. Network restrictions instead present them primarily with the all-or-nothing choice whether to accept a particular form and brand of payment.

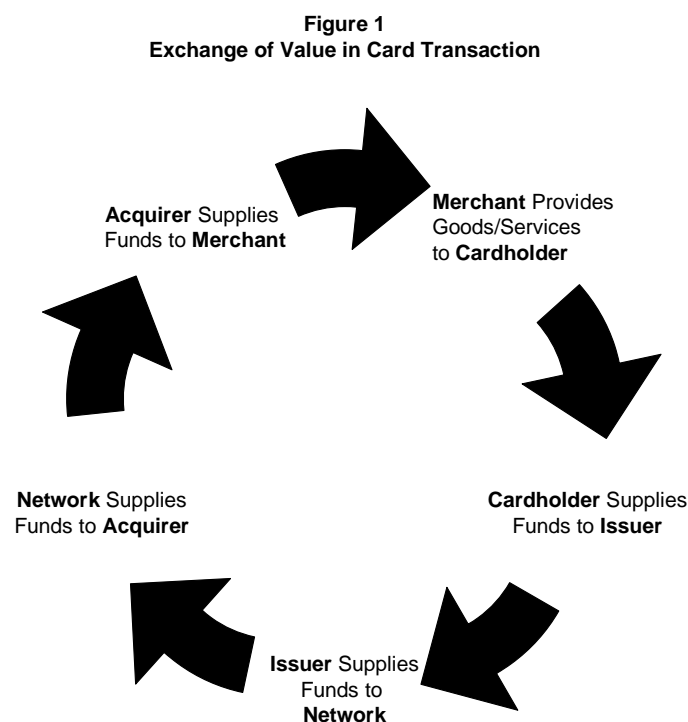
Although many observers are troubled by the way banks collect interchange fees, they sometimes struggle to understand the nature of the competitive problem and what it would mean to end this problem and create a more competitive card payments marketplace. In this paper, I provide an explanation of the competitive problem and its economic sources: a fundamental principal-agent problem created, maintained and intensified by interchange fees and restrictive network rules. I describe the most plausible and specific theoretical defence for interchange fees and why that defence is inconsistent with the way interchange fees are set, but conceptually lends itself to a logical, decentralized solution. I describe how relaxation of vertical restrictions might facilitate interbrand competition, and some possible limits to the effectiveness of incremental competitive solutions. Finally, I review the effects of the Reserve Bank of Australia's intervention in the credit card market and describe how partial relaxation of vertical restrictions in Australia has contributed to the effectiveness of the RBA's reforms.

degree to which merchant fees are increased through interchange fees vary according to the size and type (and, presumably, perceived elasticity of demand) of the merchant, and the characteristics of the card customers. Thus, for example, card acceptance fees are increased by a relatively lower amount to supermarkets – which have slim profit margins and were slow to accept credit card payments – than to other merchants, by charging a lower interchange fee for supermarket transactions, all else equal.

II. Structural Impediments to Effective Competition

A. The Flow of Funds and Payment of Fees in Card Transactions

In a cash transaction, there is a simple exchange of value: the merchant provides goods or services to its customer, and the customer provides cash to the merchant.⁷ In a card transaction, intermediaries are involved in the exchange. (Figure 1) The merchant provides goods or services to the cardholder, but the cardholder does not directly remit funds to the merchant. Instead, the cardholder supplies funds to its card-issuing bank. The issuer remits funds to the network, which acts as a settlement clearinghouse and remits funds to the merchant's bank ("acquirer"), which credits the merchant's account.



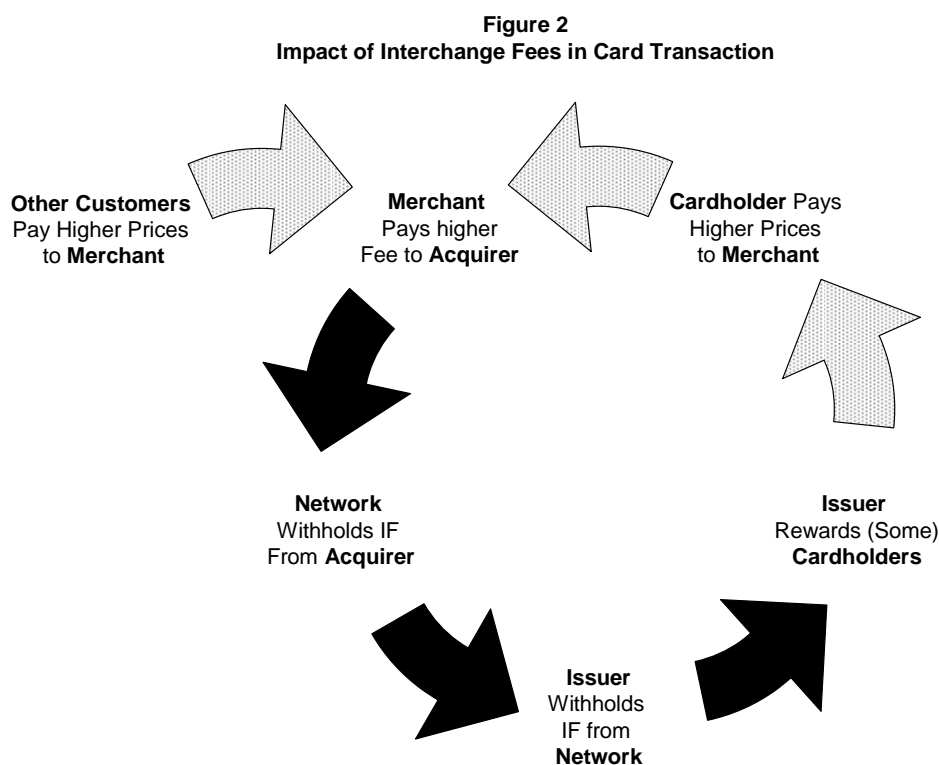
The chronology of these movements of funds can differ from the direction in which the funds move. In particular, for credit card transactions, the issuer advances funds on behalf of its card customer through the network's settlement clearinghouse and to the merchant well before the cardholder is required to supply funds to the issuer. A debit card transaction enables the issuer to obtain funds from the cardholder directly by debiting the cardholder's transaction account, although such accounts may have an attached line of credit.

In networks or clearinghouses without interchange fees, merchants and their customers each typically pay their respective banks fees for payment services, or receive payment services from their banks as part of a package of banking services.

7. In an all cash economy, consumers receive cash as wages and the retail payment is a simple exchange of cash for goods or services; with modern banking and networks, the consumer may need to convert a bank deposit or cheque to cash before spending the cash.

The banks, in turn, pay processing fees (and perhaps membership fees) to the clearinghouse.

Interchange fees are an adjustment imposed by the network in which the amount owed from the cardholder's issuing bank is decreased and the amount due to the merchant's acquiring bank to settle a transaction is decreased by a like amount, so that the position of the clearinghouse is unchanged.



Although the interchange fee revenue passes through the network's clearinghouse system as part of the settlement process, the networks deny that they "receive" the interchange fee;⁸ they instead describe the interchange fee as a payment from the acquiring bank to the issuing bank.⁹ Similarly, it is widely accepted and

8. See, e.g.,

<http://www.mastercard.com/us/company/en/docs/InterchangeFactsandMyths.doc>
("MasterCard does not receive any revenue from interchange.").

9. See, e.g., "How MasterCard Works: MasterCard Interchange Rates,"

http://www.mastercard.com/us/merchant/how_works/interchange_rates.html

("MasterCard interchange rates are established by MasterCard, and are generally paid by acquirers to card issuers on purchase transactions conducted on MasterCard® cards.");

Visa Worldwide Association Report 2004, p. 9 (<http://www.visa->

[asia.com/ap/center/mediacenter/factsheets/includes/uploads/Visa_Worldwide_Report.pdf](http://www.visa-asia.com/ap/center/mediacenter/factsheets/includes/uploads/Visa_Worldwide_Report.pdf))

("Interchange is the fee paid, typically by merchant-acquiring institutions to card-issuing institutions, each time a Visa payment product is used.").

understood that the acquirer recovers the interchange fee from the merchant, which pays correspondingly higher total merchant service fees or “merchant discounts.”¹⁰

Interchange fee revenue delivered to issuers, by contrast, does not flow through directly to be posted as credits to cardholder accounts. Although some cardholders have “cash back” card plans, many accounts offer only in-kind rewards or no rewards at all. Even when card usage generates rewards, moreover, the value of the rewards is generally significantly less than the amount of interchange fees collected by the issuing bank. The difference is accounted for by several factors, including increased account solicitation and marketing costs, the cost of administering reward programs, and increased fraud and credit losses, and enhanced bank profits, all induced as a result of the increased marginal profitability of card transactions to issuing banks. Meanwhile, customers not using the card nevertheless fund some of the fee proceeds, to the extent that merchants increase their retail prices in the presence of interchange fees to generate the funds remitted as interchange fees.¹¹ Such customers are harmed by additional card use by other consumers even though they do not use the cards themselves for a transaction. Even a cardholder is a net beneficiary of interchange only if the reduced cardholder fees and rewards received from the issuer for card purchases exceed the higher prices the cardholder pays for all purchases using all payment methods at merchants which accept cards.

B. Single-Homing, Multi-Homing and Dysfunctional Competition

It is often noted in the banking industry that networks consider themselves to be more “price competitive” when they use interchange fees to *increase* merchant fees or maintain them *above* the level of fees prevailing in rival networks. Consider just this (arbitrary) sample of news coverage of interchange fee increases from *American Banker*:

- “Visa U.S.A. said its announcement Monday that it will raise interchange fees for credit card transactions - a move bound to further anger merchants - was a competitive necessity after MasterCard raised its rates in January. [Visa’s] William M. Sheedy... said that for years his company has kept interchange fees lower than MasterCard partly to secure merchant acceptance. But the new rates, which will still be slightly lower than MasterCard’s, mark a recognition that Visa has reached near-ubiquitous merchant acceptance and must now focus on the happiness of its members, who profit from interchange fees and had been defecting to MasterCard. ‘If we were gaining share with merchants, I think that could have offset’ the lower payoffs for issuers, Mr. Sheedy said. But ‘we were losing share to merchants and issuers. In certain instances, we have had difficulty in securing issuer brand decisions because of our lower fee.’ ... Mr. Sheedy said:

10. Visa Europe, Response To The Consultation On The European Commission’s Interim Report I: Payment Cards, 21 June 2006, p. 16, (“Since acquirers pass through the interchange to their merchants, interchange does not affect the cost structure of acquirers... This is the case whether the interchange is relatively high or relatively low.”); http://www.mastercard.com/us/merchant/how_works/interchange_rates.html (“Although MasterCard has no involvement in acquirer and merchant pricing policies or agreements, it is generally understood that interchange fees are one component of the Merchant Discount Rate (MDR) established by acquirers, which is paid by merchants to acquirers in consideration for card acceptance services.”)

11. I describe the debate over retail price effects in Part V below.

‘Over the past decade or so, MasterCard has generally had higher interchange fees. They’ve been successful in promoting that in the marketplace, and it challenged us.’ ... [I]n raising the fees Visa’s board has indicated that ‘we will not be disadvantaged on interchange fees in securing issuer brand decisions.’”¹²

- “MasterCard International said it will soon raise the interchange rates that card issuers can charge to merchants... It is too early to tell whether the move will trigger a round of hikes from Visa U.S.A. and the electronic funds transfer networks such as Star Systems, the NYCE network, and Pulse EFT Association. Last year Visa U.S.A. announced increases after MasterCard did. MasterCard and Visa interchange rate hikes can put pressure on the EFT networks to increase their rates to remain competitive and keep banks happy.”¹³
- “Less than two weeks after MasterCard International announced it was raising the interchange fees merchants must pay, Visa U.S.A. told merchants and issuers that its rates will go up as much as 28 basis points in some merchant categories. Both companies’ increases are to take effect in April. Visa said in a Jan. 24 letter to merchants and issuers that its changes are meant to help its rates ‘remain competitive.’”¹⁴
- “NYCE will raise the maximum interchange fee from 34 cents to 40 cents for the PIN debit transactions it processes. The fee structure varies by type of retailer and annual gross sales... Over the last two years, the PIN debit networks have waged fierce interchange fee competition, spurred by steep increases in Interlink, Visa’s PIN debit network.”¹⁵
- “‘Our decision to increase consumer credit and corporate interchange is a measured response that allows MasterCard issuers to remain competitive, while staying mindful of the needs of the acquiring and merchant community,’ said Ruth Ann Marshall, the president of MasterCard North America. ‘Our U.S. board has authorized us to address what would have been a competitive disadvantage.’”¹⁶
- “Interchange is a critical component of the network value proposition. In concert with broadening its offerings, Discover should improve its economics for issuers. It should push harder to close its interchange gap with MasterCard and Visa, enhancing its profitability for bank and retailer issuers, fueling rewards, and thereby increasing issuance and cardholder spending. Being more attractive for issuers and cardholders than merchants is the best route to maximizing network value.”¹⁷

In Australia, Visa complained that it was at a competitive disadvantage to MasterCard due to its then lower (regulated) interchange fees.¹⁸ MasterCard and Visa

12. “Visa Says MasterCard’s Fee Hike Forced Its Hand,” American Banker, June 18, 2002.

13. “MasterCard Sets April Interchange Hikes,” American Banker, January 15, 2003.

14. “Our Turn: Visa Raising Its Interchange Rates,” American Banker, January 28, 2003.

15. “NYCE Explains July 1 Interchange Fee Hike,” American Banker, May 6, 2003.

16. “MasterCard to Up Credit Interchange,” American Banker, June 6, 2003.

17. Eric Grover, “Viewpoint: Options Abound for Post-Spinoff Discover,” American Banker, January 12, 2007.

18. Letter of 7 April 2005 from Bruce Mansfield, Visa International, to John Veale, Reserve Bank of Australia, p. 2 (“It is not fair or reasonable if the more efficient competitor, with a lower cost-based interchange, is penalized by regulatory intervention and is

complain that American Express has an advantage (and at times have even argued that Amex will take over the market) due to its higher, unregulated merchant fees from which it can fund cardholder rewards.

Although card networks frequently claim that they are balancing the interests of all parties – including merchants – when they set interchange fees, there is a critical difference between the competitive pressures the networks face from merchants, on the one hand, and issuing banks on the other. As the above excerpts illustrate, card-issuing banks generally can choose which network’s cards they will offer and issue to cardholders. A bank embarking on a new card program targeted to generate cardholder accounts can solicit those cardholders to accept a Visa card, a MasterCard card, or (since, in the United States, resolution of government litigation against Visa and MasterCard), an American Express or Discover affiliated card. If otherwise similar networks differ in the interchange fee they offer to issuers, the issuer has an incentive to choose the network with the higher fee.

Now consider the cardholders. Some cardholders will carry only one brand of general purpose credit card – they are said by economists to “single-home.” This may be because they only applied for one brand, their issuing bank for a second brand unilaterally switched the customer to the first brand, they are not creditworthy enough to get a second account, or other reasons. Although other cardholders carry more than one brand (“multi-home”), according to a summary of U.S. Visa survey data published by Marc Rysman, only 3.7% of sample consumers who had at least one general purpose credit/charge card carried *all* four leading brands, while 17.8% carried three of the brands. By contrast, 41.7% carried only one brand. Moreover, Rysman finds that even cardholders who possess multiple cards have a strong *preference* to use a particular card.¹⁹ One reason for these strong preferences is the use of loyalty and reward programs funded by interchange fees.²⁰

handicapped in its ability to compete for issuing business. This is the position Visa International currently finds itself in as against MasterCard International, with which it competes vigorously for issuance business in Australia. Visa International is at a two basis points disadvantage against MasterCard International, which is an almost four percent pricing disadvantage – a significant margin in any large commercial enterprise.”).

19. Marc Rysman, An Empirical Analysis Of Payment Card Usage, 55 J. Industrial Econ. 1, 9 (2006), and Table V and p. 8 (“I find that consumers maintain cards in multiple networks but tend to use only one network. That suggests that they have a preference for single-homing but recognize that some purchases are valuable enough to warrant using a less-preferred network.”)

20. It is widely acknowledged that interchange fees are largely responsible for the creation and expansion of reward programs which offer cash or in-kind rebates to consumers who make card payments (typically credit card programs, but also in the U.S. for some MasterCard and Visa “offline” signature authorized debit card transactions). One industry analyst in the United States estimates that 44% of credit card interchange fee revenue paid by U.S. merchants funds reward programs. Amy Dawson and Carl Hugener, Diamond Management and Technology Consultants, A New Business Model for Card Payments (2006). For the purpose of this paper, the main point is that rewards programs tend to encourage or “steer” consumers to obtain cards which incur higher interchange fees (and therefore higher merchant acceptance fees) and use more costly (to the merchant) cards for a greater share of purchases than otherwise would occur. This issuer

Even if many cardholders carry only one card brand or have strong preferences to use one card, it is possible that a merchant could still accept many or all card transactions, irrespective of brand, using one network – if cards were interoperable across networks and issuers accepted transactions presented to them which originated over any network. But that is not how the market is organized.

U.S. debit cards have typically been issued with multiple network access: one or more online PIN-authorized debit networks and the MasterCard or Visa offline, signature-authorized debit network. One of the key organizational facts underlying the tying claims in the “Wal-Mart” litigation was the widespread use of multi-homed debit cards linked to the same account; a merchant – if the rules permitted – could decline, say, Visa debit card transactions and, at least conceptually, could nevertheless accept the same card from the same customer and access the same deposit account by requesting the customer to enter a PIN in order to process the transaction over one of the PIN debit networks. Although few merchants apparently have chosen to decline signature debit transactions since the settlement of the Wal-Mart litigation, the practice of “PIN-prompting” has grown significantly. By adding PIN-prompting technology, a merchant can steer more transactions to the less costly (and safer) PIN authorized networks. For these multi-homed cards, merchants able to engage in PIN prompting have reportedly succeeded in shifting a large percentage of transactions from signature debit to PIN debit.²¹ Banks, meanwhile attempt to steer consumers to use these cards to make signature-authorized Visa or MasterCard transactions rather than PIN transactions, despite the speed and safety of the PIN networks, because MasterCard and Visa offer the banks much higher interchange fees.

The networks restrict the ability of banks to issue *credit* cards which are branded with or can access multiple networks (and thereby pay the other networks’ fees). Unlike the situation with cheques, there is no legal or regulatory requirement

steering occurs in response to the issuing bank’s incentives to obtain profitable interchange revenue. In some cases – e.g., issuer steering to induce consumers to route a signature-authorized debit transaction over the Visa or MasterCard network rather than a PIN-authorized online debit network accessible from the same card – the inefficiencies resulting from interchange fees as they are presently used are easy to observe.

21. “‘Steering’ at POS May Hit Debit Issuer Revenue,” American Banker, June 27, 2006. In addition, PIN debit transactions in the United States can sometimes be routed over more than one PIN network linking the merchant to the card issuing bank, and the merchant might have some ability to choose a lower cost network. Network consolidation and bank single-homing could threaten that ability. See, e.g., “Visa, MC Tout Their ATM Networks to Banks,” American Banker, October 19, 2005 (“By consolidating its network relationships under Visa, SunTrust was able to limit the way transactions are routed for authorization, Mr. Brashears said. ‘Merchants are being more creative in the ways they process transactions, based somewhat on the cost to them,’ he said. ‘If we limit the number of networks we participate in, that does somewhat limit the options and provide us with greater control.’”) PINs are not used to authorize U.S. credit card transactions and PIN pads are still not universal among merchants. It is still not customary, for example, customers of midrange or fine dining restaurants to be presented with a remote PIN pad in the United States. As PINs are a more secure authorization technology than signatures, it would be logical if one reason MasterCard and Visa avoid migrating to PIN authorization for credit and offline debit transactions is that this would make PIN pads ubiquitous and facilitate additional merchant steering to PIN debit networks.

which would obligate issuing banks to accept transactions presented by competing credit or debit networks.²² Debit cards in the United States evolved in an environment with many local and regional PIN debit/ATM networks, and it has been more difficult for the networks to establish a single branded debit environment.

Tim Muris, like Visa, explains that cardholder single-homing means “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.”²³ Graeme Guthrie and Julian Wright explain that in such circumstances “competition” between networks can lead to the same price as would prevail with a monopoly network:

Despite competition between identical schemes, they will each set their interchange fees as though they are a single scheme maximizing card transactions (and profits). When consumers hold only one card, the effect of competition between card schemes is to make it more attractive for each card scheme to lower card fees to attract exclusive cardholders to their network. Cardholders provide each card scheme with a bottleneck over a merchant’s access to these cardholders. Since with no merchant heterogeneity a single scheme already sets the interchange fee to the point where merchants only just accept cards, there is no scope to further lower fees to cardholders by raising merchants’ fees. Thus, despite competition between the schemes, their fee structure is unchanged from the case of a single scheme.²⁴

In the real world, of course, merchants are heterogeneous. The basic principle still applies, only each networks will price discriminate in parallel, and prevent merchant arbitrage (resale of access services by low-fee merchants to high fee merchants). The networks seek each merchant’s (or type of merchant’s) reservation price, and set its merchant fee (or set an interchange fee to result in a merchant fee) just below the merchant’s reservation price.²⁵ This is both the monopoly price and the

22. Effective competition could have led to multi-homed credit cards, as a bank offering multiple-network capable cards could have assured cardholders of more universal merchant acceptance than a bank accepting issuing a card which can initiate transactions only over a single network.

23. 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 (emphasis in original).

24. Graeme Guthrie and Julian Wright, Competing Payment Systems, National University of Singapore, Department of Economics, Working Paper No. 0311 (2003), p. 16. *See also*, 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.”)

25. As Jean-Charles Rochet notes about the incentives of the bank networks, “the privately optimal [interchange fee] equals the maximum value of the interchange fee [] that is compatible with sellers’ accepting cards.” Jean-Charles Rochet, The Theory of Interchange Fees: A Synthesis of Recent Contributions, 2 Rev. Network Econ. 97, 104

price attained with “competing” networks with single-homing cardholders, multi-homing merchants, and lack of merchant steering.

In this situation, whether or not consumers view the networks as interchangeable, there is little or no *merchant* substitution between networks; the networks have effectively allocated customers (transactions) between them and each network therefore can exploit fully a low elasticity of demand for its brand – *assuming the network’s members can act collectively to raise prices above the competitive level*. If the network has a single acquirer or is vertically integrated into acquiring, it can do this directly. The problem for a network with many competing acquirer banks is that it stands to leave all of this potential monopoly revenue on the table if the acquirers cannot collude to exploit the inelastic demand resulting from single-homing and customer allocation. The networks resolve this dilemma with interchange fees that enforce a collective price increase to merchants and increase merchant fees by a factor of four or more in the United States credit card networks.

Whether or not banks are primarily acquirers, primarily issuers, or have a more balanced credit card operation, they prefer high interchange fees. The reason is that in their function as issuers, they will each receive those fees and pass only a portion of them along to cardholders as rewards; as acquirers, they pass the full amount of the cost increase to their merchant customers. It is less clear what the net effect of higher interchange fees will be on total card transactions; some potential merchant clients will refuse to accept the cards, reducing transactions, but cardholders are encouraged to make more card transactions, which operates in the opposite direction.

This analysis assumes that merchants cannot use steering to defeat the banks’ strategy for exploiting collective market power. Steering, if fully effective (in the presence of enough competing networks) can induce networks themselves to compete at their collective levels on the amount of the interchange fee. If the interchange fee is viewed simply as a cartel overcharge on merchant fees, introducing competition fully over the amount of the interchange fee will drive that fee or overcharge to zero, and restore the merchant fee to the competitive level.²⁶

C. Restrictions on Merchant Steering

Muris, Guthrie and Wright, Rysman and others characterize the process of bank networks using interchange fees to price to the merchants’ inelastic demand as the natural outcome in “competitive” payment card markets.²⁷ But this description is

(2003)

26. Note that in this context a “zero interchange fee” is the result of competition among networks permitted to require that such fees be remitted, and differs from a policy of not permitting a mandatory interchange fee. Because it is reasonable to interpret interchange fees as they are used by networks today in the manner described here, a policy of simply eliminating mandatory interchange fees makes sense, as I explain in Part IV below.
27. See, e.g., Rysman, *supra* note 19, p. 10 (“More interestingly, the presence of single-homing may partly explain why it is that merchants subsidize consumers rather than vice versa. The literature on two-sided markets establishes that, in a competitive market for payment networks, the side that multi-homes subsidizes the side that single-homes.”) (emphasis added).

misleading. It presumes in advance the answers to the critical questions: should otherwise decentralized, multi-bank networks be able to appoint networks to set prices collectively as if they were a single, integrated firm to take advantage of inelastic market demand, rather than let interbank competition drive merchant fees towards marginal cost?²⁸ And should the bank networks be permitted to restrict merchants' ability to introduce competition between networks, thereby creating and intensifying the inelastic demand they exploit with interchange fees?

Interchange fees would be "neutral" and have no real economic effects if each sector were perfectly competitive, with no transaction costs or contractual (or legal) restrictions.²⁹ Visa's interchange fee, for example, could rise by one percent of the purchase price while MasterCard's interchange fee remained unchanged, yet have no real effect in the (counterfactual) scenario in which merchants increased their prices to Visa card customers by one percent and Visa issuers rebated one percent (or an additional one percent) of the purchase price to their cardholders, assuming administration of all of these prices, fees and rebates also had no costs.

Networks would face more competition over the amount of any interchange fees if merchants conveyed to consumers the merchants' relative cost of accepting various types of payment. In the above example, the merchant hypothetically charged a one percent premium for Visa card transactions relative to MasterCard transactions. If consumers obtained a one percent rebate from the issuer, they might be indifferent – and suggesting that the entire exercise is pointless.³⁰ If the merchant fully surcharged the Visa transaction but the Visa issuer did not fully rebate the funds to the cardholder, then the relative cardholder price to use a Visa card would exceed that for use of a MasterCard card. Consumers would tend to switch to MasterCard, and Visa would experience pressure *from cardholders who make payment choices at the point of sale* to reduce its interchange fees which result from those choices. In other words, the principal-agent problem is resolved.

But suppose the merchant operates under a contract for acceptance of Visa and MasterCard transactions that forbids the merchant from discriminating at the point of sale depending on the card brand used. If the merchant began with half of its transactions occurring with each brand, then it can either continue accepting all cards and increase its prices to all card customers by 0.50% to recover the additional fee costs, or it can drop Visa card acceptance and keep its prices at the former level. If the merchant continues to accept both brands, however, cardholders have no

28. There are many products with inelastic consumer demand; cartels to exploit inelastic demand would normally be condemned as a matter of routine. For example, if food retailers formed a cartel which charged a very high price for the most inelastic demanded food products, and lower prices for more elastic products, no one would likely defend such a cartel successfully by arguing vaguely that charging higher prices on inelastic products is a more efficient way to cover fixed costs of retailing.

29. See, e.g., Joshua S. Gans, & Stephen P. King, *The Neutrality of Interchange Fees in Payment Systems*, 3 *Topics Econ. Analysis* 1 (2003).

30. See, Joshua S. Gans, *Evaluating the Impact of the Payment System Reforms*, (Updated) Submission to the Reserve Bank of Australia's Payment System Board's 2007-08 Review of Payment System Reforms, 27 August, 2007, http://www.rba.gov.au/PaymentsSystem/Reforms/RevCardPaySys/Pdf/joshua_sg_27082007.pdf.

disincentive at the point of sale to switch to MasterCard, while the additional fee proceeds received by Visa card issuers allows them to offer greater rebates to Visa cardholders than MasterCard cardholders, thereby stimulating Visa usage. Unless *merchants* can act collectively to refuse Visa cards under these conditions, Visa may *gain* sales relative to MasterCard by increasing its fee with this “no discrimination” rule in place, whereas it was likely to lose sales by increasing its interchange fee if merchants perfectly reflected the differential costs in their pricing practices.³¹

The networks restrict or prohibit many of the ways that merchants might encourage or discourage the use of specific card payments. Such restrictions may include:

- Prohibitions on “surcharging” customers who use the network’s cards, and rules which might also discourage “discounting” alternative payment methods;
- Prohibitions on “discriminating” – treating the customer less advantageously in any way – for using the network’s brand instead of another brand or payment type;
- Prohibitions on requiring a minimum purchase amount, or maximum purchase amount, for use of the network’s cards;
- “Honour all cards” rules which require acceptance of cards irrespective of the identity of the issuing bank and irrespective of the card type or interchange fee resulting from use of that card;
- Prohibitions on accepting the network’s cards only for some transactions or at some locations, but not all.
- Prohibitions on “suppression” of use of the network’s card.
- Prohibitions on bypassing the networks for clearing and settling transactions initiated with cards carrying the network’s brand.

For the MasterCard and Visa networks, restrictions on merchants are imposed by requiring that any bank which enlists a merchant client include in its contract with the merchant an agreement to abide by the network’s rules. The networks also restrict their own bank members from offering credit cards carrying multiple network brands, and, until successful litigation by the United States Department of Justice, the networks prohibited U.S. members who issued MasterCard and Visa cards to also issue cards carrying brands owned by American Express or Discover Card.

If reductions in interchange fees benefit the public (as has been accepted by several competition authorities and regulators), then vertical restrictions which restrain competitive forces which would themselves reduce interchange fees also

31. One would assume that an actual interchange fee or increase in the fee is privately optimal for a network and its banks by increasing their profits, but it does not necessarily follow that the higher fee results in more aggregate transactions, depending on how many merchants refuse cards that would accept them with much lower merchant fees.

harm the public and are anticompetitive, unless they can persuasively be shown to achieve other, offsetting benefits.

III. Do Interchange Fees Generate Benefits?

In order to evaluate whether interchange fees (or vertical restrictions which protect and permit increased interchange fees) are beneficial, or evaluate market mechanisms which might generate a more competitive and efficient outcome, it is helpful to consider what economic problem or market failure interchange fees might plausibly be solving.

A. Do Interchange Fees Solve a Market Failure Resulting From Network Externalities?

Interchange fees often are defended with appeal to the fact that these are imposed by networks which exhibit “positive network externalities.” The networks claim that they face an “extremely delicate” business problem that can only be solved through centralized control of relative consumer and merchant prices through use of the interchange fee.³² In light of the obvious and substantial price-increasing effect on merchant card acceptance services, it makes sense to require a demonstration that the interchange fee as actually applied by the network achieves net efficiencies. MasterCard and Visa face “global interchange proceedings” in large part because they have been unable to persuade merchants (or, in some jurisdictions, regulators) that interchange fees actually achieve benefits as claimed by the networks.

The networks have responded by criticizing merchants for complaining about interchange fees. With respect to ongoing litigation over interchange fees in the United States, for example, “MasterCard believes that these lawsuits are without merit, and a clear demonstration of certain merchants wanting the significant benefits of accepting payment cards without having to pay for the value of the services they receive.”³³ This claim is illogical. To support their continued imposition of interchange fees, the networks must contend not that *payment cards* generate significant public benefits, but that *interchange fees* deliver such benefits. Without interchange fees set at the level deemed appropriate by the network, MasterCard warned in Australia, there could be a “death spiral” in which the card system collapses entirely:

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

32. See, e.g., http://www.mastercard.com/us/merchant/how_works/interchange_rates.html (“Setting interchange rates is a challenging proposition that involves an extremely delicate balance.”). 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.

33. See, e.g., MasterCard Worldwide, “US Merchant Interchange Lawsuit,” http://www.mastercard.com/us/company/en/newsroom/interchange_lawsuit.html.

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 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.³⁴

Visa similarly contends

[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).³⁵

If interchange fees were essential to the survival of the card networks, and card networks benefit merchants, then merchants logically could not obtain the

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34. MasterCard Incorporated Submission to Reserve Bank of Australia, June 8, 2001 (as Revised July 20, 2001), pp. 10-11 (emphasis in original, footnote omitted). 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.” *Id.*, p. 12. As I discuss in Section V below, there was no death spiral when the RBA significantly reduced the level of MasterCard’s and Visa’s interchange fees. It is difficult to reconcile claims that consumers today are so unwilling to pay for the benefits *they* receive from debit or credit cards that they would instead abandon the cards altogether, with the many examples of payment networks operating successfully with par settlement – i.e., no interchange fee adjustment between the merchant’s bank and the consumer’s bank, and the example of Australian consumers carrying EFTPOS cards despite their banks’ payment of “negative” interchange fees to acquirers. Examples of these at-par payment systems can be found historically or currently with paper currency, cheques, debit cards and other electronic interbank transactions (including ACH transactions in the United States). For further discussions of par settlement payment systems, see Part IV, below.
35. 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.

benefits of the cards without paying interchange fees. MasterCard's claim is equivalent to a claim that merchants around the world fail to understand their own economic interests.

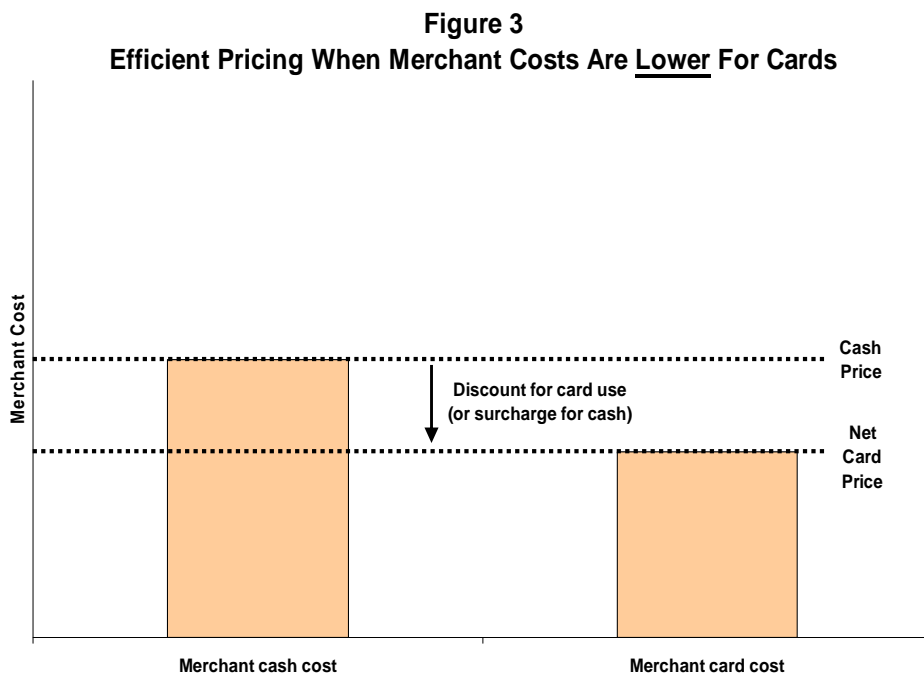
The "death spiral" warning is essentially a claim of the existence of extreme network externalities, in the presence of which the value of the network to its customers will collapse if interchange fees are even slightly reduced.³⁶ But network externalities, if any, are unlikely still to be competitively significant in a mature card market.³⁷ The private benefits to consumers from carrying cards are likely enough to entice them to do so, and the external benefits are speculative at best, especially in mature markets.³⁸ Moreover, there is no reason to believe that merchants currently accepting credit cards *despite* paying merchant fees greatly elevated by interchange fees would refuse to accept card payments if the price for acceptance services fell dramatically.

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36. 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.
37. David Evans & Richard Schmalensee, *Paying With Plastic* (1st Ed., 1999), p. 153 ("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..."); *Id.*, p. 68 ("[A]s the market became more saturated, the net benefits of adding new members decreased."); Jean-Charles Rochet, *The Theory of Interchange Fees: A Synthesis of Recent Contributions*, 2 Rev. Network Econ. 97 (2003), p. 98 ("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."); Stan Sienkiewicz, *Credit Cards and Payment Efficiency*, Federal Reserve Bank of Philadelphia Payment Cards Center, Discussion Paper No. 01-02 (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.)."). Evans & Schmalensee refer to the U.S. "payment card market" as "saturated" in 1985. Evans & Schmalensee, *The Economics of the Payment Card Industry* (NERA, 1993), p. 33-34.
38. Visa consultants in Australia deem 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 Australian Payment Systems," Australian Payments System Conference, 14 March 2006, p. 2.

B. Do Interchange Fees Solve or *Exploit* A Usage Externality?

Externalities relating to interchange fees persist, but they are not “network externalities.” Instead, they arise from the principal-agent problem described in Part I: as Rochet and Tirole explain, “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.”³⁹

How might the usage externality *justify* interchange fees? Suppose hypothetically that (absent any interchange fee) card use reduces merchants’ transaction costs. In a perfectly competitive merchant market, this cost difference will be reflected in lower retail prices for card transactions.⁴⁰ (Figure 3.) The form of the differential pricing can matter in the real world; a “discount” for using cards may have a different impact on actual consumer behaviour, for example, than a “surcharge” for use of cash, and the competitive implications of “no surcharge” rules for cards include the prevention of interbrand differences in the effective price for card transactions. For now, I will simplify the discussion and assume, *arguendo*, that there are only two forms of payment, cash and cards, and cards cost the merchants less than cash.

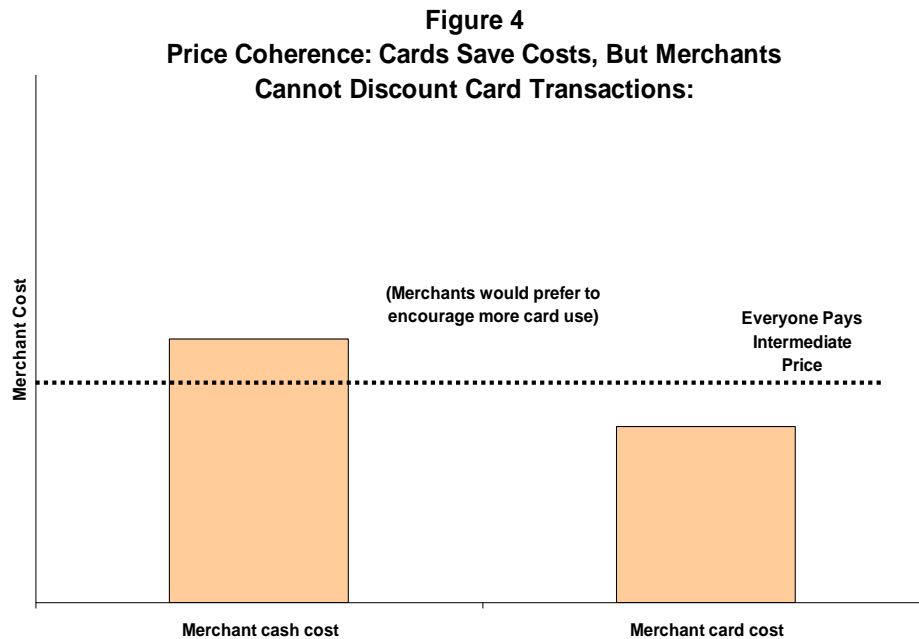


Consumers will take into not only the costs of supplying them with payment services, but also the extent to which merchants’ costs vary by payment method; the merchant externality is “internalized” by the consumer and a competitive outcome results.

39. 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.

40. In a symmetric way, merchants will charge higher prices to customers presenting cards if credit cards are more costly than cash. This situation is commonplace in many other markets.

Suppose now that legal or contractual restrictions, transaction costs or some other exogenous factor prevents merchants from administering different retail prices according to method of payment – a common historical occurrence which I have called “price coherence.” Still assuming that cash transactions are more costly to the merchants than card transactions, if merchants do not discontinue accepting cash transactions the competitive equilibrium will look like that shown in Figure 4: prices reflect the merchants’ weighted average payment cost, there is no price incentive at the point of sale for cardholders to choose card payments, and there is an inefficiency at the margin.⁴¹

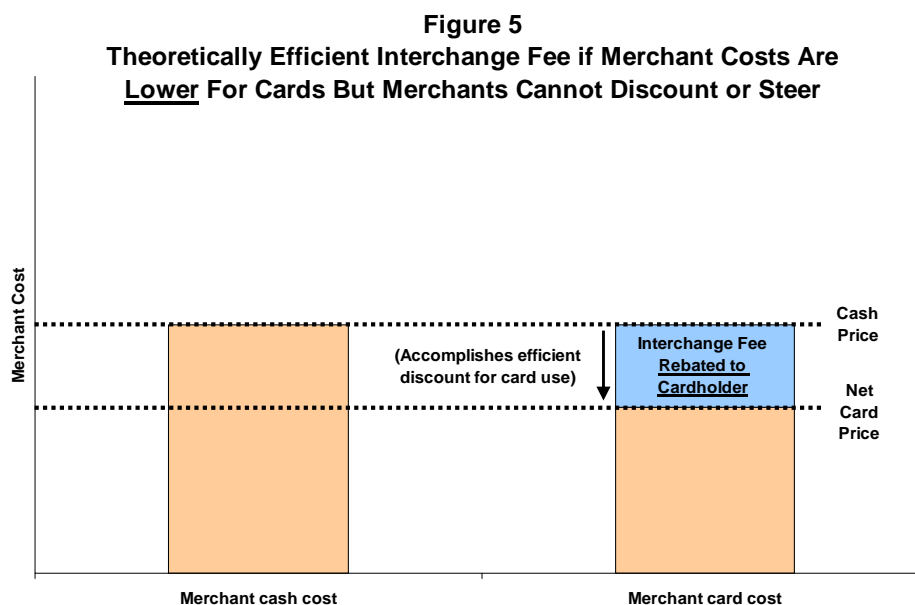


In this scenario, there are some transactions for which the merchant’s potential savings if the customer switched from cash to cards exceeds the customer’s private cost to make that switch; there are unexploited gains from trade in which the merchant could potentially pay the consumer to use a card, but for the impediment to retail pricing flexibility (or other effective merchant steering).

If, for some reason, it is forbidden or prohibitively costly for a merchant to offer a discounted price to card customers, but less costly for banks to process a discount on behalf of the merchant, then the merchant might be able and willing to

41. It may be socially efficient not to refine the prices if the competitively determined cost of administering the more complex pricing system exceeds the efficiency gains from implementing such a system. See, Dennis W. Carlton and Alan S. Frankel, Transaction Costs, Externalities, and “Two-Sided” Payment Markets, 2005 *Columbia Business Law Review* 617 (2005); 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 (“[W]hen 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.”).

enlist the bank to offer the discount on the merchant's behalf. An interchange fee, as a theoretical matter, can accomplish this outcome, as shown in Figure 5.



This theoretically optimal interchange fee replicates exactly the two-price outcome the merchant would unilaterally administer if transaction costs were low and there were no other merchant restrictions.⁴² The interchange fee proceeds are (in this theoretical framework) rebated entirely to the cardholder customer by a perfectly competitive banking sector which finds rebating itself to be costless. In either the two-price competitive equilibrium or with an optimal interchange fee, merchants are indifferent at the margin to payment choice: either the prices differ by an amount equal to the cost difference, or the prices are equal and the direct cost to the merchant is equal. With price coherence and an optimal interchange fee, 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 1:1.⁴³

Because interchange fees are used by card networks, rather than differential merchant pricing, William Baxter – who first analysed interchange fees on behalf of Visa in the context of a competition law dispute in the U.S. *NaBanco* litigation of the early 1980s – inferred that using interchange fees must be more efficient than leaving individual merchants to solve their usage externalities on their own.⁴⁴ If merchants

42. The efficient interchange fee under this theory is independent of card issuers' costs, the costs cited by the networks as justification for their interchange fees. It is instead driven by merchant preferences and cost differences.

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

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

were unconstrained and free to set different effective prices to consumers based on payment choice, then interchange fees 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.⁴⁵

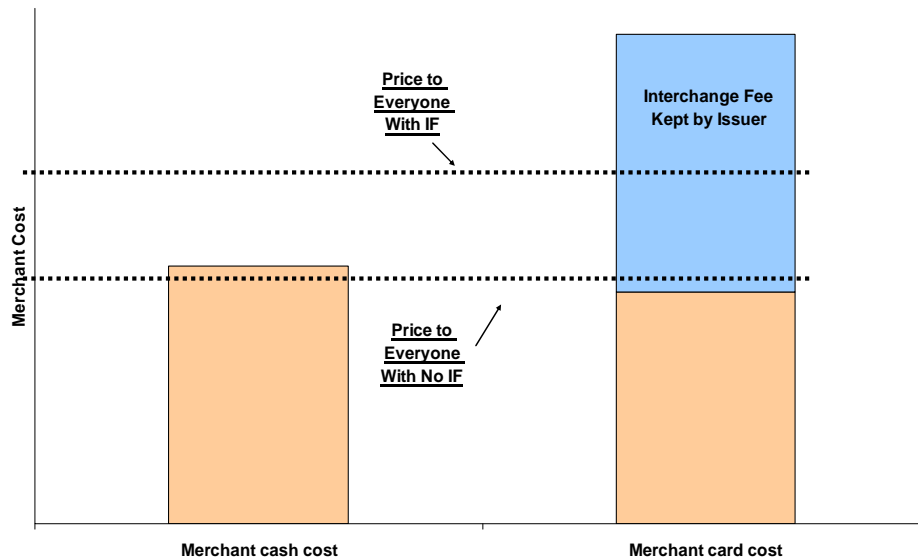
So far, I have assumed that cards reduce merchants' marginal transaction costs. If the converse is true, and cards cost merchants *more* than cash, then, under this theory, a "negative" interchange fee would be required for efficiency.⁴⁶ Credit card issuers would charge fees to their card customers and 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 5? 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 6)

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.”).

45. 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 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.”).
46. 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 cheques, they would have established negative fees which compensated merchants for the cost of handling cheques. Instead, cheque 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 6
Interchange Fee Too High And No Surcharging



With price coherence, an interchange fee set above the theoretically optimal level causes merchant prices rise to all customers. With perfect merchant surcharging, the merchant would recover all of its costs associated with each payment type directly from the customers who used those payments. If interchange fee revenue is rebated by issuers directly to cardholders, then neutrality prevails, and the market is competitive irrespective of the existence or level of the interchange fee, as already explained.

If *none* of the interchange fee revenue is rebated to cardholders, then an interchange fee causes both card customers and cash customers to pay higher retail prices, while generating no offsetting savings to card customers; the fee acts like a privately imposed sales tax funded by all consumers.

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 if a consumer is, on net, harmed by higher retail prices only partly offset by a rebate which is smaller in magnitude, the consumer will still have an incentive to use cards to get rebates, because the consumer's individual choice of payment method has only a *de minimis* impact on retail prices in general, and no impact for the current transaction, due to price coherence. There is thus a free-rider problem among consumers, and also distributional impacts; poor consumers lacking cards (or, at least, reward cards), for example, help fund rewards offered to higher income card users.

Baxter simply assumed from the fact that interchange fees are used by networks that they must be a less costly way to solve merchant usage externalities than leaving merchants to solve them on their own. But that is assuming the answer to the key question: is the interchange fee system being used to achieve efficiencies or to tax retail sales in an exercise of market power?

Merchants' dissatisfaction with interchange fees and the networks' policies towards the setting of interchange fees and towards merchant surcharging for card

transactions suggest an answer. If interchange fees are meant to solve or alleviate an externality resulting from a principal-agent problem, then it would not make sense for the network to prevent the principal from adjusting its own pricing and use other steering techniques to more completely solve this problem for itself, if it is able to do so. But the networks commonly prohibit surcharging of card transactions, “discrimination” between customers presenting alternative card brands and the other forms of steering (although no-surcharge rules have been eliminated by the RBA and in some other regions). Merchants invariably find that interchange fees cause credit cards to cost far more to accept than supposedly inefficient paper currency and cheques.

Merchants have the appropriate incentives whether or nor to pay interchange fees, and, if so, in what amount. Moreover, the networks do not require that the interchange fee proceeds be delivered to cardholders. Instead, issuers retain the funds, and only partially pass fee revenue to cardholders. In this sense, permitting issuers to retain interchange fees functions like collective resale price maintenance; the revenue flowing to the service provider induces additional sales efforts, promotional activity, and rebates. But it is far from apparent that these activities and the partial rebating of fee proceeds to cardholders benefit the public more than would lower merchant payment costs and prices to all consumers.

C. Imperfect Issuer Competition and High Interchange Fees

Some defenders of interchange fees rely on assumptions that card issuing banks possess market power unilaterally.⁴⁷ The existence of market power, they suggest, negates the conclusion that merchants have the appropriate incentives whether or not to have an interchange fee, and, if so, at what level.⁴⁸

47. 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 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.”).

48. Consider this 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:

If issuers have market power, they reason, exercise of that market power reduces output, so encouraging card issuing and use with interchange fees can be efficient even if the fees exceeds the level merchants would choose (if any). There several problems with this argument. First, interchange fees will not necessarily increase aggregate card use. Although incentives to use cards are increased at the margin, at merchants accepting the cards, fewer merchants are likely to accept cards in the first instance as interchange fees are imposed, or set at higher levels, thus reducing card usage. Second, there is no reason to expect that if individual issuing banks, each with unilateral market power, are permitted to act collectively to increase their mutual fees collected from merchants, that they will use this power to offset the inefficiencies resulting from the exercise of their own market power, rather than use their collective action to enhance their overall exercise of market power. Third, additional significant wealth transfers to the parties with market power occur when they are permitted to impose and collect interchange fees, only a portion of which they pass to cardholders.

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, such as membership restrictions, which may create or maintain market power.

It should be noted that the networks sometimes contend that the interchange fee cannot cause any harm because any excess interchange fee revenue will simply be rebated to cardholders by intensely competitive issuers. 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.”⁴⁹ 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,

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?”

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.” (emphasis added).

49. 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.

interchange is nothing more than an internal equilibrating device that does not and cannot harm consumer welfare.⁵⁰

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.”⁵¹ They suggest “the overall level of fees... might be measured as total fees [cardholder fees plus merchant fees] per dollar of transactions” and “their structure... might be measured by the shares of total fees paid by merchants and cardholders.”⁵²

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. Interchange fees are borne fully by merchants;⁵³ they are not, however, rebated fully to cardholders.⁵⁴ Visa explains that 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

In other words, imperfect issuer competition to rebate interchange fees to cardholders explains why the networks have an incentive to impose interchange fees, but this is unrelated to any efficiency effects. It is instead simply a way to raise total aggregate fees charged for use of card payment systems.

50. 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.

51. 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.

52. *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.

53. See, e.g., note 9, *supra*, and discussion at Alan S. Frankel and Allan L. Shampine, *The Economics of Interchange Fees*, 73 *Antitrust L.J.* 627 (2006), pp. 631-32.

54. See, e.g., VISA Europe, *Response To The Consultation On The European Commission’s Interim Report I, Payment Cards* (21 June 2006), p. 21 (“[I]n practice there may not be full pass-through, for example, 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.”); *id.*, p. 25 (“[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.”).

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

IV. Designing Competitive Payment Markets

The foregoing discussion is intended to provide context within which to evaluate how public policy might be applied to create more competitive payment markets. Existing rivalry among banks or between networks is insufficient to foster a well-functioning, efficient and competitive market; the likelihood that such rivalry can generate competitive outcomes depends crucially on the institutional features and design of the market.⁵⁶

A. Merchants Can Decide Whether to Pay Interchange Fees

The usage externality is real. The cost to merchants of completing transactions varies according to payment method, but consumers select the payment method without internalizing the merchant's cost differences, because prices are equal across payment methods.

Some point out that this type of situation is common throughout the economy.⁵⁷ No one compels a clothing retailer, for example, to charge a separate fee for alterations or automobile parking. If it does not charge separate prices depending on the level of service provided, then one might say there is an externality, but not one important enough for the merchant to bother solving.⁵⁸ Moreover, a merchant can solve this problem itself if it proves to be significant, and regulation of alteration or parking fees would be unlikely to make economic sense.

The problem with the argument that usage externalities are pervasive and unimportant is that it is the *card networks* that intervene to regulate such externalities in payment systems. They neither leave merchants to decide for themselves whether and by how much to refine their retail prices through interchange fees, nor permit merchants freedom to adjust the point of sale incentives to consumers as the merchants see fit after the networks have imposed their interchange fees. The result is likely a far more significant usage externality than any which would have existed absent the networks' intervention in the first instance. The argument that usage externalities should be left unregulated unless a clear market failure is established implies not that competition law or regulatory intervention is unjustified, but rather

56. Daniel McFadden makes a similar point in the context of health care markets. Daniel L. McFadden, "A Dog's Breakfast," *Wall Street Journal*, February 16, 2007, p. A15 ("[C]onsumer-directed health care works only if consumers can understand the consequences of their choices. In much of medicine, providers are the agents that guide consumers through these choices. If consumer-directed health care is to be effective, these providers must give sound advice on both the health and financial consequences of alternative choices. This is possible if the incentives to providers and consumers are right, but the design of such markets should not be left to chance.")

57. See, e.g., David Evans, *Bank Interchange Fees Balance Dual Demand*, *American Banker*, January 26, 2001.

58. Similarly with respect to interchange fees, 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." 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.

that *network* interchange fees should be rejected. Merchants can be trusted to price differentially or steer customers as they see fit without intervention by the networks, barring compelling evidence to the contrary (or voluntary agreement by a merchant to pay interchange fees to an issuer).

Baxter suggested that it is less costly for banks to administer interchange fees than it is for merchants to administer differential retail pricing. Retail point of sale transaction processing technology has advanced significantly since the 1970s, however, while transaction costs have declined with advances in point of sale technology. It is clear that bank networks do not establish fees which adjust the usage externality in the same way that merchants would choose for themselves if they were free to do so.

B. Mandatory Interchange Fees Can Be Eliminated

Card payment systems can operate competitively, requiring neither industry regulation of fees (as MasterCard and Visa continue to do in most regions) nor government regulation of fees (as now occurs in Australia). The networks and economists who defend interchange fees contend the only alternative to centrally fixed interchange fees is a complex and costly system of bilateral interchange fee agreements between each pair of banks, covering all of the transactions between their respective cardholders and merchants. They argue further that bilateral fee agreements will result in even higher interchange fees, because the networks' honour all cards rules create a hold-up problem in which each issuer has monopoly power over each merchant.⁵⁹

This argument is misleading. It 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. There is, in effect, a "pay interchange to all" rule in addition to the "honour all cards" rule, which together create the very hold-up problem which the networks then claim requires centrally fixed default interchange fees to solve.

59. *See, e.g.*, William F. Baxter, Bank Interchange of Transactional Paper: Legal and Economic Perspectives, 26 J.L. Econ. 541 (1983), p. 576-77; 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."); 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.")

Interchange fee supporters deny that it is possible for the networks to function without *someone* regulating interchange fees. They argue that a payment system with no default interchange fee actually does have an interchange fee, but it is “fixed at zero” – and not different in substance than any other interchange fee Visa or MasterCard might choose to impose. This is incorrect.

Saying that the competitive merchant fee (i.e., the fee which a merchant can obtain through independent competition among acquirers in the absence of an interchange fee) is actually a *fixed* fee, with the fixed component equal to zero, is a semantic argument with no economic substance. The competitive merchant fee is the fee resulting from competition among independent acquiring banks based on their own, competitively determined costs. The interchange fee increases this competitive merchant fee on a one-for-one basis, and, in effect, represents in its entirety a collective (and anticompetitive) overcharge. Elimination of the overcharge thus restores the market to decentralized competitive pricing. It is nonsensical to defend an anticompetitive overcharge based on the argument that it is impossible to eliminate because a zero overcharge is still an overcharge.

In a competitive, par (default) settlement arrangement, there is no 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 voluntary contracts which involve the payment of an interchange fee or side payment. The network 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 to every other network participant. The scheme would not be fixing fees, but *declining* to fix merchant fees.

Successful interbank payment systems have operated or continue to operate at par. Interchange fees in currency and cheque markets in the United States were historically associated always with the exercise of monopoly power 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.⁶⁰ When network competition worked effectively, banks abandoned interchange fees and remitted currency and cheque payments at par. They nonetheless continued to offer 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.⁶¹

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

61. 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

There are numerous examples of debit networks operating at par, without the payment of interchange fees to (or from) issuing banks.⁶² Early PIN-authorized debit networks in the United States tended to operate at par.⁶³ In Canada, “there is no interchange fee in the *Interac* Direct Payment service,”⁶⁴ yet the *Interac* Direct Payment PIN debit network has been the country’s leading payment system. Some national debit systems in Europe (in the Netherlands, Finland, Denmark, and Luxembourg) reportedly operate or have operated with par settlement.⁶⁵ 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.⁶⁶

There is nothing fundamentally different about credit card networks that prevents them from settling transactions between banks at par like cheque and debit card systems. In fact, many consumers use credit cards for purely transactional purposes, rather than as a means to finance spending.⁶⁷ That credit cards offer users a

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 even today imposing universal default interchange fees on the settlement of cheques, even if such interchange fees raised check acceptance costs and notwithstanding the lack of any evidence that such a scheme would benefit the public.

62. Debit card transactions function much like electronic cheques; 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.
63. 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 (“By the early 1990s, some 15 years after on-line PIN debit and off-line Visa/MasterCard signature debit were created... 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.”).
64. Interac Association, *A Background*, Sep. 2000, p. 8.
65. 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.”).
66. 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>.
67. Bruce Mansfield, General Manager, Australia & New Zealand, Visa International,

credit function does not somehow mandate that a fixed transaction fee unnecessary in debit card transactions becomes essential. In fact, economists who defend interchange fees typically argue that eliminating interchange fees would be inefficient (by reducing incentives for consumers to use the cards), not that the networks cannot operate without the fees.⁶⁸ But they lack support even for this milder claim: as I have explained, eliminating the fees would likely improve efficiency.

C. Competitive Restrictions Can Be Eliminated

Banks participating in four-party payment systems operating competitively, and without any interchange fee, establish fees based on their own costs of providing services to their respective customers, whether they serve consumers, merchants, or both. As already discussed, it is sensible to migrate directly to a no-interchange fee (par settlement) card payment environment.

In addition, however, restrictions on merchants' ability to influence payment and network choices are anticompetitive individually and taken together. They minimize the elasticity of demand facing each network, enabling those networks to raise their merchant fees either directly or, for four-party systems, through use of centrally fixed interchange fees. These restrictions also increase the likelihood that the network itself will be able to increase its own network fees anticompetitively.

1. Networks Can Compete for Merchant Transactions

Effective competition among networks and their members would tend to eliminate interchange fees, even if networks were permitted to continue imposing such fees. If any merchant could transport its claims for payment back to the issuing bank via any of a number of competing networks, then, all else equal, merchants

“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...”).

68. David Evans and Richard Schmalensee, *Paying With Plastic* (1st ed., 1999), p. 280 (“Visa probably would have survived with a zero interchange fee...” (although they argue the results would not be efficient or desirable.)); Testimony of William Baxter before the United States Federal Trade Commission, *supra* note 19 (“There would be credit cards without interchange fees.” However, he claimed, “there would be fewer of them, and their costs would be higher.”); 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 (““Payment systems can also function with a zero IF, like the [debit card systems identified by the Commission in the Sector Inquiry].”); Julian Wright, *One-sided Logic in Two-sided Markets*, 3 *Review of Network Economics* 44 (2004), p. 58 (“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).”). 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.” Visa Europe, *Response To The Consultation On The European Commission’s Interim Report I: Payment Cards*, 21 June 2006, p. 22.

would tend to choose the network which imposed the lowest interchange fee.⁶⁹ Competition among networks thus would drive interchange fees lower.⁷⁰ In bank note and cheque settlement markets, this process resulted in the elimination of interchange fees altogether. Unlike those paper based demand claims on banks, however, banks generally can choose whether and how many networks in which to participate. Very frequently, they participate in multiple networks. Yet it is possible that with competing networks they might choose unilaterally to withdraw from a network that reduces its interchange fee.

There are at least two possible solutions to this bottleneck problem. Network rules, laws or regulations can perhaps require the redemption of these electronic claims (when presented, say, over a certified network) in the same way as occurs with cheques. Absent anticompetitive restrictions, the competitive process itself would likely have resulted in multi-network enabled cards and issuing banks. This, in fact, is how debit card networks developed in the United States. Of course, history can matter to the development and effectiveness of competitive strategies. Had banks always been able to issue multi-network enabled credit cards, any bank not issuing such cards might have been at a competitive disadvantage as its cards would not be as useful as those issued by its rivals. Because merchants could not choose the network to process transactions initiated with a particular card, however, most major merchants chose to accept all of the leading credit card brands. This might now make multi-network cards less of a competitive threat to monopolistic interchange fees, but there is no reason to permit the networks to forbid the issuance of multi-network capable cards; the history of debit cards demonstrates that multi-network cards do not prevent the efficient development or operation of networks.

2. Surcharges and Steering Can Be Permitted

Because merchants pay transaction fees elevated by the interchange fee, competitive pressure on networks to constrain the amount of the interchange fee is more effective if a merchant can choose the network, reflect its relative costs in point of sale surcharges and discounts, or otherwise effectively influence consumers to

69. See, e.g., Competitive Impact Statement, in *U.S. v. First Data Corporation and Concord EFS, Inc.*, Case No. 1:03CV02169 (D.C.), p. 11 (“Least-cost routing opportunities constrain PIN debit networks from increasing prices to merchants, or reducing levels of service, because they permit merchants, in some circumstances, to route around more expensive networks, or networks that offer poorer levels of service. In recent years, major supermarkets and mass merchandisers have obtained superior prices and levels of service by routing, or threatening to route, transactions away from one PIN debit network to another network.”)

70. 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. 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. It is not obvious how a bank’s ability to issue a single card which could route a transaction seamlessly 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.

choose the merchant's preferred network. This is likely why the networks often deter or prohibit merchants from influencing payment choices.

When prices do not vary by payment method, cards which impose higher interchange fee costs on merchants will tend to be favoured by consumers whether or not that choice increases merchant costs. The clearest and most direct form of merchant steering (short of merchant refusal to accept a payment or merchant ability to choose the payment network) is therefore a multiple price system which fully internalizes for cardholders the merchant's differential costs of accepting different forms of payment.

MasterCard and Visa defend against complaints that (still in some regions) they forbid *card surcharges* by pretending that the complaint is that they forbid *cash discounts*⁷¹ – which they do not (at least, in the United States, since legislation in the early 1980s action authorized merchants to implement cash discounts). But permitting discounts for “cash” is not equivalent to permitting “surcharges” for credit cards, both because the framing of a differential price can matter to the outcome, and because discounts do not permit inter-network price competition at the point of sale. Moreover, merchants sometimes find that there are significant network constraints even on their claimed ability to offer discounted prices for cash purchases.⁷²

Even merchants' mere *ability* to impose surcharges on credit card transactions can have procompetitive effects.⁷³ As MasterCard explains,

71. See, e.g., MasterCard Worldwide, Interchange Facts and Myths, <http://www.mastercard.com/us/company/en/docs/InterchangeFactsandMyths.doc>, p. 4:

Myth: Card company rules prohibit merchants from offering discounts for cash and check.

Fact: MasterCard has always allowed merchants to offer discounts for cash and check. Gas stations, for example, used to regularly offer cash discounts, but the majority independently ceased this practice. These types of businesses came to recognize that payment cards, such as MasterCard, offered them significant benefits over cash or check transactions.

72. See, e.g., Gas Stations Discounting Cash Sales, Delaware Online, 27 August 2007, <http://www.delawareonline.com/apps/pbcs.dll/article?AID=/20070827/BUSINESS/708270304>.

73. C. Christian von Weizsäcker, Economics of Credit Cards, Expert report on behalf of MasterCard International Incorporated and Europay International SA, 23rd January 2002, http://www.rba.gov.au/PaymentsSystem/Reforms/CCSchemes/ResponsesConsultDoc/mastercard_0302_3.pdf, ¶55 (“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.”).

MasterCard considers that the ability of merchants to discourage card use, by such means as cash discounts and surcharging, should be more than sufficient to avoid excessive interchange fees. Credit card schemes have an interest in avoiding discouragement by merchants, because it lessens card use. It should not, therefore, be surprising that schemes will set interchange fees to dissuade widespread discouragement practices by merchants. A low level of discouragement might therefore simply reflect that merchants are not unhappy with their current merchant fees relative to the benefits they obtain from accepting cards. That is simply the nature of bargaining - one does not need to exercise an option for it to have value to the merchant.

The threat of discouragement has value to the merchant (in restraining merchant fees) as long as it is credible, even if it is not exercised.⁷⁴

Prohibiting surcharges therefore has anticompetitive effects. Although merchants' ability to surcharge will not prevent networks entirely from using interchange fees to artificially increase merchant fees, it will constrain the amount of overcharges imposed through interchange fees. Again, MasterCard explains that "An increase in merchant service fees will clearly raise the gains from surcharging relative to the costs, and hence make it more likely that surcharging will occur."⁷⁵ But if networks seek to prevent surcharging, then they will increase interchange fees to the point where incremental losses from "discouragement" offset incremental interchange fee revenue. This point will be at a higher level of fees if merchants' freedom to discourage card use is restricted by network rules.

Removing restrictions on surcharging is not a complete solution, because merchants find it difficult to surcharge when their competitors are not (and those competitors may receive lower interchange fees), and it is costly to explain surcharges and the existence of lower cash prices to consumers, particularly if rules or regulations further limit the ability of merchants to communicate lower cash prices. MasterCard misses the point in its discussion of surcharging. According to the network,

MasterCard also recognises the possible benefits in the Australian context of increasing merchants' pricing flexibility, and that surcharging provides four-party schemes with yet another basis to ensure that the level of interchange fees does not exceed merchant willingness to pay.⁷⁶

This statement is telling: MasterCard, in addition to acknowledging that interchange fees are paid by merchants, apparently contends that the purpose of its discriminatory interchange fee system is to approach but not exceed a merchant's willingness to pay (reservation price) to accept card transactions. But competitive markets generally do not permit sellers to identify and charge a buyer's reservation price; this is the sign of monopoly pricing enabled by practices which create and

74. Response by MasterCard Worldwide to the Issues for the 2007/08 Review, August 31, 2007,

http://www.rba.gov.au/PaymentsSystem/Reforms/RevCardPaySys/Pdf/mc_31082007.pdf

, pp 6-17.

75. *Id.* p.17.

76. *Id.*, p. 17.

exploit single-homing behaviour among cardholders and multi-homing acceptance by merchants. The ability to surcharge can increase the number of merchants accepting cards, pressure networks to reduce merchant fees, and induce consumers to make more efficient payment choices.

3. Honour All Cards Rules Can Be Abolished

Other forms of merchant steering have been or are restricted by network rules. Merchants may not refuse card transactions for low value transactions, for example, and American Express fights merchant “suppression” of that network’s cards, including by terminating merchants which discourage customer use of American Express cards.⁷⁷ In general, these policies compel merchants to make an all or nothing decision whether to accept the cards from a network, and give the merchant little or no ability thereafter to shift transactions from one network to another in response to fee differences across the networks. They therefore make merchant demand for each network’s card acceptance services less elastic, and permit higher profit-maximizing interchange fees.

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 cheques. If they decide to do so, they determine whether to accept all cheques or just cheques from customers who reside in certain locations, or for certain purchases, and they determine what fees, if any, to charge to customers to exchange those cheques for cash or whose cheques are returned unpaid by their banks.

Card networks frequently argue that it is a fundamental characteristic of such networks that any customer carrying a card with the network’s trademark will know with certainty that the card will be accepted by a merchant displaying that trademark. Although that may be a benefit, such benefits must be weighed against the costs to competition which also result from an honour all cards rule. After all, consumer search costs can also be reduced by a price fixing cartel which offers price certainty.

Given the problems with maintaining competitive payment markets, any restriction on merchants’ ability to steer their customers towards preferred or lower cost payment methods should be viewed with suspicion and critically examined. The honour all cards rule is one such competitive restriction. Barring compelling evidence – rather than mere assertion – that its elimination would cause more harm than good, it should be eliminated. A merchant should have complete freedom to establish or negotiate its terms of trade with its customers and should be free to accept or deny payment methods, including card payments, based on the level of interchange fee, the size of the transaction, or any other factor of its choosing.

Card networks in recent years have driven increases in interchange fees in part by introducing higher interchange tier cards, and requiring merchants to accept these higher cost cards. Banks then switch their customers into these high interchange fee card programs. Merchants cannot selectively refuse card even if the cost of accepting

77. American Express Cuts Off Retailer, New York Times, December 23, 1991.

a particular card transaction exceeds the merchants' overall reservation price; the merchant must make an all or nothing choice whether to accept all of the branded card transactions.

D. *Mandatory Bilateral Interchange Fees and Other Alternatives*

The scenario described in Part IV(B) in which there was no "mandatory" interchange fee was equivalent to an environment of voluntary bilateral interchange fees; only mutually acceptable fee agreements would be processed by the networks, which otherwise would play no role in requiring or establishing the level of interchange fees; all valid transactions would clear and settle whether or not an interchange fee agreement was in place. I then discussed elimination of the honour all cards rules, but primarily in the context of permitting a merchant to reject certain types of cards which carry higher interchange fees.

The honour all cards rule also has an "all issuers" aspect, which the networks cite as the reason why centrally fixed interchange fees are necessary rather than bilateral fees; otherwise, they explain, any one issuer can hold-up a merchant and extract the monopoly fee. One competitive tool might therefore be to eliminate the this all-issuer aspect of the honour all cards rule.⁷⁸

Consider an alternative. Suppose the network eliminated any no-discrimination or no-surcharge rule, required each merchant to negotiate bilateral interchange fee agreements (either directly or through correspondent banking relationships), and required each merchant to itemize the interchange fee as a separate line item charge to the customer presenting the card, much like sales taxes are itemized. In this case, usage externalities would be eliminated.

In fact, one might not need the costly process of negotiating interchange fees at all if the network required that they be passed along to the issuer's own customers; a bank could simply post its interchange fee unilaterally, and its own card customer would bear the resulting cost if it chose to obtain its card from that bank. Of course, in that case, there would be no reason for an issuer to bother with the interchange fee in the first place, as it would be easier to just charge fees directly to its own customers. The "competitive interchange fee," assuming cardholders are fully informed, would likely be zero even if networks required that interchange fee agreements are in place.

If a merchant is unable to surcharge an individual issuer's cards to reflect its higher interchange fee, however, it may also be unlikely to refuse the card altogether. Eliminating the all-issuers aspect of the honour all cards rules, therefore, might not be enough in a bilateral fee environment to achieve a competitive market. That does not imply that it is sensible to leave the restriction in place, just that its elimination along

78. Under the counterfactual scenario described by interchange fee supporters, a merchant unable to reach a bilateral fee agreement with every issuer would be refused participation in the network; the merchant would not be permitted to submit transactions to all banks for which interchange agreements are in place. But it is no more the merchant refusing to accept an issuer's cards than the issuer which is refusing to authorize transactions put to it as it holds out for a higher interchange fee. In other words, there is an asymmetry in that there is no network "honour all merchants" rule.

with elimination of no-surcharge and no-discrimination rules may be insufficient to create a fully competitive market.

The entire point of interchange fees from the perspective of issuers can be seen as the collection of revenue supplied by *non-customers* of an issuer.) If merchants could not or would not set surcharges which varied according to the interchange fees charged by the individual issuers, then externality problems will persist. In short, one might imagine a variety of marketplace devices which to different degrees enhanced competition effectively over interchange fees. The closer the networks get to designing a set of rules which promote effective competition (i.e., eliminate externalities and market failures), rather than create and exploit market failures, therefore, the more likely it is that the resulting competitive equilibrium will see the elimination of interchange fees.

E. Three-Party Card Networks

MasterCard and Visa often respond to criticism of interchange fees by claiming that “three-party” networks like American Express and Diners Club can set merchant fees directly, so attacks on interchange fees are merely an attack on “corporate form.” They argue that reductions in their interchange fees will create an “uneven playing field” and permit three party networks to use their unregulated, high merchant fees to offer more valuable rewards to cardholders than remain available on MasterCard or Visa cards and thus displace the four-party networks.⁷⁹ Because, they claim, three party systems are less efficient and more costly than MasterCard and Visa, reducing interchange fees will therefore harm the public and even harm merchants by replacing lower fee MasterCard and Visa transactions with higher fee American Express or Diners Club transactions.

Notwithstanding warnings that merchants’ situation will worsen with lower interchange fees, merchants continue to seek lower fees. By itself, this is evidence that merchant costs are unlikely to rise as the result of lower interchange fees, unless merchants systematically fail to pursue their own economic interests. Similarly, if it were true that reducing interchange fees will simply permit American Express to maintain its high fees and take over the market, then one might expect American Express to support the reduction or elimination of interchange fees. But American Express has not supported regulated reductions in MasterCard and Visa interchange fees.⁸⁰

79. See, e.g., MasterCard International Incorporated, Response to the December 2001 Consultation Document of the Reserve Bank of Australia, March 2002, p. 37 (“As Australian financial institutions now issue American Express credit cards and receive a commission based on total cardholder volume, the Bank’s selective intervention, focusing exclusively on the four-party scheme, will have a direct impact in tilting the playing field in favour of the three-party schemes.”)

80. See, e.g., American Express, Competition In Payment Systems: Submission To Reserve Bank Of Australia, June 2001, p. 8 (“American Express submits that the RBA should promote increased competition arising from the removal of unjustifiable access restrictions rather than price-focussed regulation to drive any reduction or rationalisation in interchange fees.”)

In fact, although perhaps imperfect, American Express is constrained to some extent in the setting of its merchant fees by the amount that merchants pay to accept MasterCard and Visa card transactions. As the cost to the merchant of accepting one of the four-party networks' cards declines sharply with reduced interchange fees, the merchant's cost/benefit calculus in deciding whether to accept American Express cards shifts: although some transactions will still be lost to retailers accepting American Express cards, for each transaction successfully shifted to a MasterCard or Visa card account, the merchant's savings increase with lower interchange fees. If American Express maintained a privately optimal premium over the cost to merchants of accepting MasterCard or Visa transactions, it will likely find it privately optimal to reduce its merchant fees following a reduction in interchange fees.⁸¹ (As I describe in the next section, reduced interchange fees and the ability to surcharge has in fact led to reductions in American Express merchant fees in Australia.)

If three-party card networks did begin to take over the market and cause harm to the public, as MasterCard and Visa warn (or if MasterCard or Visa themselves attempt to transform their structures by integrating directly into acquiring like American Express), then one possible remedy is to simply prohibit the monopolization of their respective acquiring markets through such vertical control. 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 (and, outside Australia, it prevents steering through vertical restrictions). If it relaxed these restrictions, then it could be treated in an entirely symmetric way with MasterCard and Visa. American Express payments to independent bank issuers could also be subjected to a similar process or policies as are applied to MasterCard and Visa interchange fees paid to issuing banks.

F. More Comprehensive Structural Changes

The new centralized structures of MasterCard and Visa pose a potentially significant competitive problem. Formed as joint ventures of otherwise competing banks, they long defended themselves on the basis that they did not operate as profit centres, but rather served as “platforms” which enabled their independent bank members to compete freely on price and other terms of card account plans and merchant services. Over time, however, the networks have centralized more activities (in addition to the setting of interchange fees and other rules), and their reorganization as standalone, independent for-profit corporations represents a consolidation of formerly independent ownership interests into a single corporate entity. If, as the networks apparently believe, these new corporate structures insulate permanently conduct which would have been condemned under their old structures, then they argue that their conduct should not be condemned in the first instance. An alternative interpretation is that their corporate reorganizations themselves were anticompetitive and inappropriate.

81. 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.”)

Almost all discussions of competition and payment policy towards card schemes take as a starting point the existing organization of the industry. But it is interesting to contemplate how one might design card payment markets today, were it possible to start with a “blank sheet of paper.” Rather than accept as given the role of MasterCard and Visa as both network service providers and network rule makers, one could contemplate a different market organization in which the MasterCard and Visa processing networks operated in the same fashion as other large processing companies, while the standard setting and rule making functions formerly undertaken by those entities were divested and entrusted to new standard setting joint ventures or associations which did not own any networks or set any prices. Rather than MasterCard and Visa operating as central switches, they could be two among several or many directly connecting nodes, with other banks choosing between connecting directly to other nodes and contracting with any directly connected bank or network for correspondent network services. Central banks are perhaps best situated to undertake independent, broad reviews of the potential ways that payments markets might be restructured. If nothing else, understanding what such alternative structures might look like may help policymakers understand more fully how the structure we have deviate from potentially more competitive alternatives.⁸²

G. The Importance of Both Structural Change And Reduced Interchange Fee

Although history suggests that a fully competitive *process* in a well designed and competitive payments market would generate a par settlement system with no mandatory interchange fees, reform of existing markets must consider the fact that the marketplace would be evolving from a starting point which has been shaped for years by the dysfunctional competitive forces resulting from anticompetitive restrictions and collectively set interchange fees. Incremental reform of contractual restrictions, such as elimination of the no-surcharge and no-discrimination rules, is helpful and beneficial to the public, but may be insufficient to erode interchange fees to restore fully competitive pricing in the marketplace, given the four-party credit card duopoly and vertically integrated three-party card networks.

Similarly, reduction of interchange fees without reform of competitive restrictions heightens the risk that interchange fees charged to merchants will be supplanted by other fees charged to merchants. In particular, even if interchange fees are eliminated, and acquiring fees are no longer inflated from that source, it is possible that the networks themselves will take advantage of the lower fees by imposing their own increased network fees, charged to acquirers but collected from merchants just as interchange fees are now. In this way, the networks can exploit inelastic merchant demand either to provide a relabelled interchange fee payment to card issuers, or for their own profit. This risk is heightened by the lack of inter-network competition, the vertical restrictions which reduce merchants’ ability to steer transactions to preferred networks, and the networks recent corporate reorganizations.

82. Even if a more efficient payments structure can be designed which would entail the major reorganization of the way MasterCard, Visa or other networks operate and interconnect (or fail to interconnect), it might be difficult for either competition authorities or other regulators to use their existing statutory authority to achieve fully such reorganization, and either cooperation of the networks or statutory changes could be required to achieve such major reorganization.

MasterCard and Visa no longer are joint ventures of otherwise independent banks, but rather have become (or, in the case of Visa, are in the process of becoming) independent, for-profit, publicly traded stock corporations. In this environment, it is important to maintain every potential competitive tool available to merchants to induce networks to compete with respect to their fees.

V. Effects of the Australian Retail Payment Reforms

The RBA reduced domestic credit card interchange fees in Australia in 2003 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%. The RBA eliminated the no-surcharge rule in the MasterCard and Visa networks, and obtained consent from American Express and Diners Club to eliminate their own prohibitions on merchant surcharging or discriminating against their branded card transactions. Chang, Evans and Garcia Swartz call the RBA interchange fee reform “a natural experiment, almost” of the effects of sharp reductions in interchange fees.⁸³

A. Average Merchant Fee Rates Fell Dramatically

American Express predicted in 2001 that “it is doubtful whether lower interchange fees to card issuers will be passed on to retailers (in the form of reduced discounts/premiums)...”⁸⁴ MasterCard’s General Counsel has claimed that the RBA reform “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.”⁸⁵ MasterCard predicted:

The Bank erroneously believes that if four-party schemes were forced to drastically cut their merchant service charge, the three-party schemes would have to follow suit... This is a naive view of the market. When faced with a situation of regulated pricing of four-party schemes leading to higher cost faced by cardholders, three-party schemes will take advantage and exploit the opportunity to offer attractive rates in competition with four-party schemes. They will benefit more from their newly found competitiveness and will not feel obliged or forced to adjust their merchant service charges as the Bank believes.⁸⁶

83. 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.

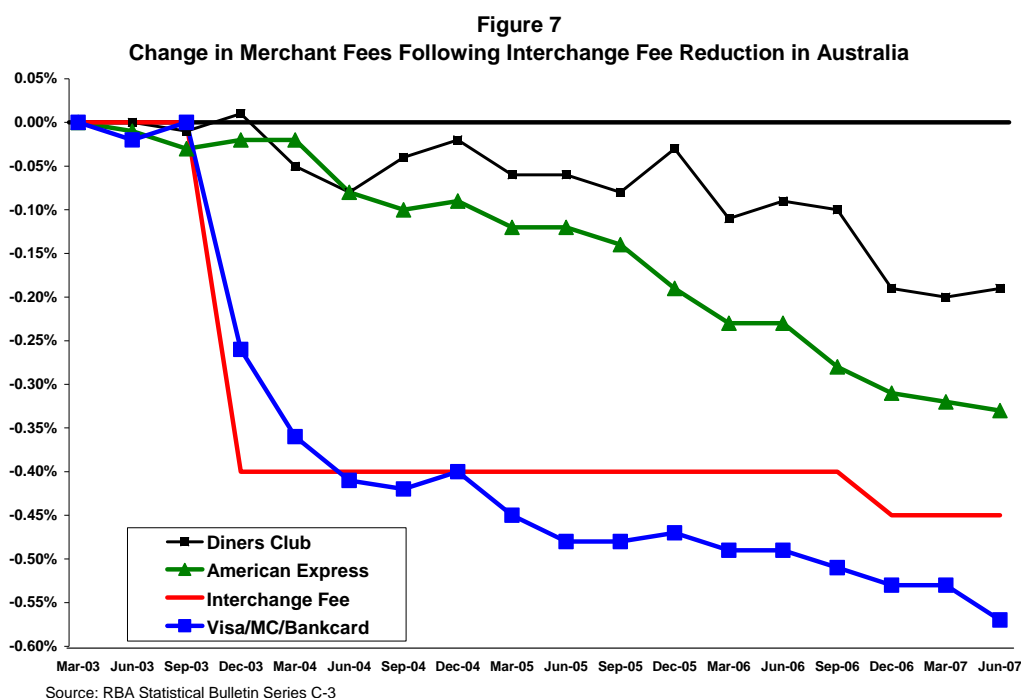
84. American Express, *Competition In Payment Systems: Submission To Reserve Bank Of Australia*, June 2001, p. 8.

85. 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).

86. MasterCard International Incorporated, *Response to the December 2001 Consultation Document of the Reserve Bank of Australia*, March 2002, p. 37.

Visa stated that “it is difficult to argue that competitive pressures would force the closed schemes into a reduction of their merchant service fees in a half-regulated environment.”⁸⁷

The evidence decisively refutes these predictions. As shown in Figure 7, average merchant fees for MasterCard and Visa (and the former Bankcard network) fell as much as the reduction in interchange fees, then even further (57 basis point reduction for MasterCard and Visa transactions through June 2007 vs. a 45 basis point reduction in the interchange fee).⁸⁸ Despite being unregulated, American Express fees fell by 33 basis points through June 2007 (about three-quarters of the reduction in interchange fees), while Diners Club fees fell by 19 basis points. Fees to accept American Express and Diners Club transactions (both averaging 2.17% in June 2007) still remain well above those for MasterCard and Visa (0.88%), but American Express maintained a premium over MasterCard and Visa fees even before the interchange fee reductions (and didn’t then take over the market).



As American Express explains, “Reductions in bankcard interchange mandated by the Reserve Bank of Australia in 2003 have resulted in lower merchant

87. Visa International, Submission to The Reserve Bank of Australia: Inclusion of Closed Card Schemes in the Designation Process, 17th April 2001, p. 6. Another submission sponsored by Visa similarly stated, “Our analysis... predicts that the structure of fees in closed card schemes will not change materially as a result of lower merchant service fees and higher cardholder fees in open schemes.” Visa International Service Association, Delivering a Level Playing Field for Credit Card Payment Schemes: A study of the effects of designating open but not closed payment schemes in Australia, August 2001 (Prepared by Network Economics Consulting Group Pty Ltd), p. 56.

88. Reasons for the more than equal decline in merchant fees may include the possibility that some merchants were paying above market rates before the reform and continued competitive efficiencies in the transaction acquiring business.

discount rates for VISA and MasterCard. As a result of changes in the marketplace, we have reduced our own merchant discount rates in Australia...”⁸⁹

B. Three-Party Networks Did Not Displace MasterCard and Visa

MasterCard and Visa warned that reducing their interchange fees would convey a competitive advantage to three-party card networks which would grow at the four-party networks’ expense.⁹⁰ MasterCard warned that reduction of interchange fees would permit integrated three-party card systems to displace MasterCard and Visa altogether in the marketplace:

Given the nature of payment systems, one would expect three-party systems to take every opportunity to set higher merchant service fees than their four-party system competitors and to use their higher merchant revenue to offer consumers better and less expensive card products (eg, better rewards programs, lower annual fees). In the long run, if not sooner, one can only assume that this advantage would lead to three-party systems taking share away from four-party systems and, depending upon the extent of the advantage, eventually compete them out of business.⁹¹

Following the RBA’s reduction of interchange fees, MasterCard and Visa claim that these warnings have come to pass. For example, MasterCard contends that its prediction that “the three-party schemes, which have higher overall fees and lower network benefits, will reap a competitive windfall against the four-party schemes” “has come to fruition.”⁹² According to MasterCard, “the Bank’s selective regulation of the four-party schemes has handed the three-party schemes a competitive windfall and been directly responsible for the ability of the three-party scheme to increase their share of purchases relative to the four-party schemes since the date of effect of the interchange standard.”⁹³

Although there was some growth in the usage of American Express and Diners Club cards relative to four-party cards, the growth occurred in early 2004 and did not initiate a persistent trend. As Figure 8 shows, since the beginning of 2005, the three-party share of transactions has averaged 2.0% higher than during the period January 2002 through September 2003, and the percentage of transaction value only 1.5 percent higher than in the earlier period. For the past three and one-half years, there has been no increase in the three-party share of card transactions.

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

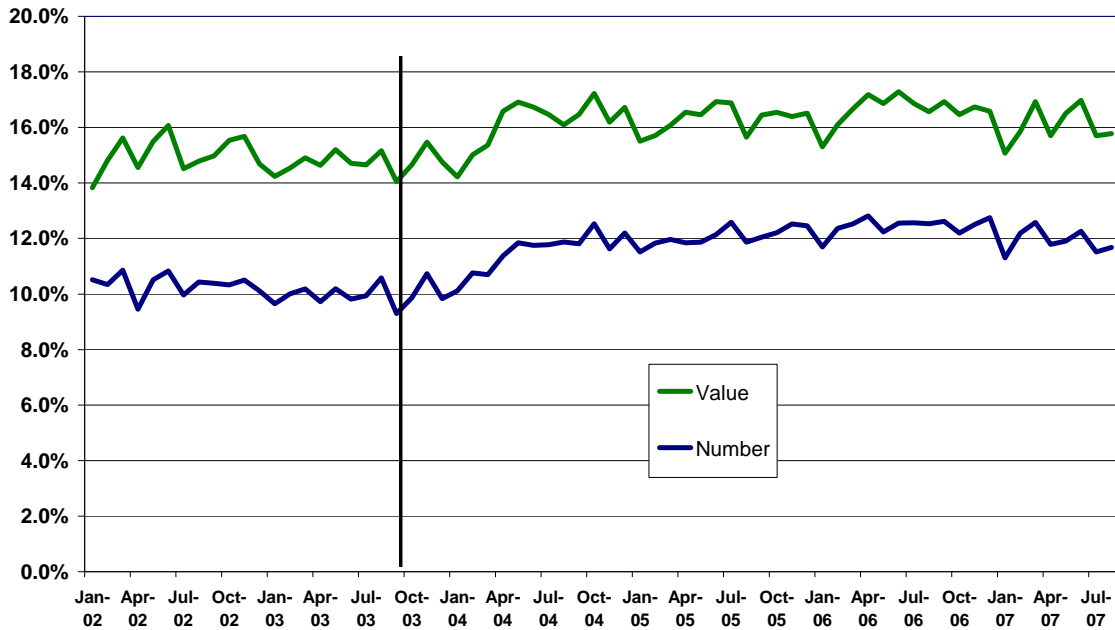
90. See, e.g., Visa International, Submission to The Reserve Bank of Australia: Inclusion of Closed Card Schemes in the Designation Process, 17th April 2001, pp. 21-22.

91. MasterCard International Incorporated, Response to the December 2001 Consultation Document of the Reserve Bank of Australia, March 2002, p. 117.

92. Response by MasterCard Worldwide to the Issues for the 2007/08 Review, August 31, 2007, p. 22.

93. *Id.*, p. 35.

Figure 8
American Express and Diners Club Share of Credit and Charge Transactions



Source: RBA Statistical Bulletin Series C-2.

C. The Elimination of No-Surcharge Rules Intensified Competition

One reason why American Express and Diners Club could not take over the market as predicted by MasterCard is that the RBA eliminated no-surcharge rules and permitted merchants even to differentially surcharge different card brands.

Card networks have long objected to proposals to permit merchant surcharges on their card transactions (or, at one time, even discounts for cash), and they objected to the RBA’s intention to eliminate no-surcharge rules. Not surprisingly, given its high fees, American Express not only objected to surcharges for card use, but also specifically argued that if surcharging is to be allowed, “the acquirer should be able to terminate the card acceptance facilities of any merchant who... surcharges in a manner which discriminates against the holders of a particular card.”⁹⁴ But this is one of the key differences between permitting discounts for cash and permitting surcharges for cards. The ability of a merchant to impose differential surcharges according to the specific costs of accepting a particular card has the potential to reduce usage externalities and introduce more effective competition at the point of sale. Surcharges by themselves are unlikely to eliminate interchange fees altogether, because – probably due to transaction costs – with low enough fees, most merchants will not surcharge. But the ability to surcharge and actual use by some merchants of surcharges can significantly constrain merchant fees or reduce consumer usage of the most expensive cards.

94. American Express, *Competition In Payment Systems: Submission To Reserve Bank Of Australia*, June 2001, p. 9. American Express also argued that “card issuers and/or merchant acquirers should be permitted to offer incentives or differential pricing to merchants who do not surcharge.” *Id.*

Following the RBA's reduction of interchange fees and elimination of no-surcharge and no-discrimination rules, some Australian merchants did begin to surcharge – and sometimes surcharged only three-party card transactions, or surcharged them at higher rates. According both to MasterCard and Diners Club, these surcharges on American Express and Diners Club transactions contributed to the lack of growth in the three-party networks' share of transactions. MasterCard explains:

MasterCard believes that, were it not for the abolition of the no-surcharge rule, the share of purchases for the three-party schemes would have been greater. The ability of merchants to impose a surcharge in respect of purchases using credit cards has acted as a constraint on the growth of the three-party scheme.⁹⁵

[T]he ability of merchants to impose a surcharge in respect of purchases using credit cards has acted as a constraint on the growth of the three-party scheme. If merchants were not allowed to impose surcharges and steer American Express and Diners Club cardholders to alternative payment methods, the share of the three-party schemes would have been far greater.⁹⁶

A report submitted by Diners Club confirms MasterCard's explanation that surcharging constrained the usage of three-party systems relative to the four-party systems:

[M]erchants, especially large merchants, can bargain more much aggressively with Diners Club and are more likely to impose surcharges on Diners Club transactions than they with those of Visa and MasterCard... While Diners Club's MSFs are generally higher than those of Visa and MasterCard, merchants are far more likely to surcharge Diners Club transactions... while accepting Visa and MasterCard MSFs as simply a cost of doing business. This is illustrated by the fact that the most common form of surcharging is where Diners Club and American Express are surcharged and Visa and MasterCard are not. Furthermore the rate at which they are surcharged is not the differential between the Visa and MasterCard's MSF and the Diners Club and American Express MSF, but the full three-party-scheme MSF rate.⁹⁷

Diners Club reportedly found that differential surcharging has dramatic effects:

[W]hen [redacted] started surcharging Diners Club and American Express cards in [redacted] [b]oth the value and volume of transactions fell by over [redacted] per cent, as consumers switched

95. Response by MasterCard Worldwide to the Issues for the 2007/08 Review, August 31, 2007, p. 24.

96. *Id.*, p. 26.

97. The Allen Consulting Group, Review of Reform of Australia's Payments System: Regulation of Credit Card Payments and the role of Diners Club, Report to Diners Club (commercial-in-confidence version), September 6 2007, p. 5

their payments to other means (probably Visa and MasterCard, as these were not surcharged).

[W]hen [redacted] introduced surcharging... [w]hile [it] surcharged all credit card payments, it charged Diners Club and American Express by [redacted] more (an amount which exceeded the difference in MSFs). The effect was dramatic...

[I]t should be noted that it is differential surcharging that primarily has caused the decline in Diners Club transactions, not surcharging per se...

[W]hen all cards were surcharged, there would have been no incentive for consumers to switch from one card to another, and there was no obvious negative effect on Diners Club transactions.⁹⁸

Diners Club (and, presumably, American Express) may dislike the effects of differential surcharging, but these effects illustrate exactly why no-surcharge rules and no-discrimination rules are anticompetitive. American Express's desire to forbid or penalize differential surcharging is understandable as a profit maximizing strategy, but that does not make it consistent with sound payments and competition policy. It is, in fact, impossible to reconcile claims that no-surcharge rules are beneficial to the public with the plain logic and evidence that such rules importantly stifle interbrand competition, permit networks to maintain higher fees, and exacerbate market failure.

D. Overall Merchant Fees Declined Significantly

MasterCard and Visa have argued that merchants are likely to pay even higher fees following the reduction in interchange fees than they would have paid with higher interchange fees. They reasoned that a relative increase in the usage of American Express and Diners Club cards, combined with their prediction that those three-party card fees would not decline much if at all, leaves merchants worse off than before.

The results in Australia contradict this prediction (and confirm the rationality of merchants seeking lower interchange fees). Although the three-party networks' merchant service charges exceed those for MasterCard and Visa transactions, they have fallen significantly since 2003 and MasterCard and Visa fees have fallen even more dramatically, as shown in Figure 7. The small increase in the share of transactions occurring on the three-party networks has had little offsetting impact on the reduction in merchant fees.

In fact, comparing merchant fee rates and the relative usage of three- and four-party cards in September 2003 with the fee rates and relative usage since then shows that merchants saved roughly \$2.36 billion between October 2003 and June 2007, and the recurring savings are growing. This computation, moreover, ignores the additional and potentially substantial cost reduction resulting from incremental shifts of some credit card charge volume (e.g., as rewards programs become less valuable) to lower cost EFTPOS or cash payments.

98. *Id.*, pp. 12-13.

E. The “Two-Sided Price Level” Declined Significantly

The networks frequently 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,” they claim, but instead can only shift costs from merchants to cardholders.⁹⁹ This has not been the case in Australia.

Figure 9 shows the net effect that the reductions in interchange change fees have had on four-party scheme transactions through June 2007. The reduction of the interchange fee by 45 basis points has so far generated a 57 basis point reduction in the average Visa/MasterCard merchant service charge. 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.¹⁰⁰ 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 41 basis point decline in the total price – nearly as much as the reduction in interchange fees. Moreover, this does not take into account at all the reduction in American Express and Diners Club merchant fees, any shift towards low cost EFTPOS debit transactions, and reductions in finance charges to “revolver” cardholders.

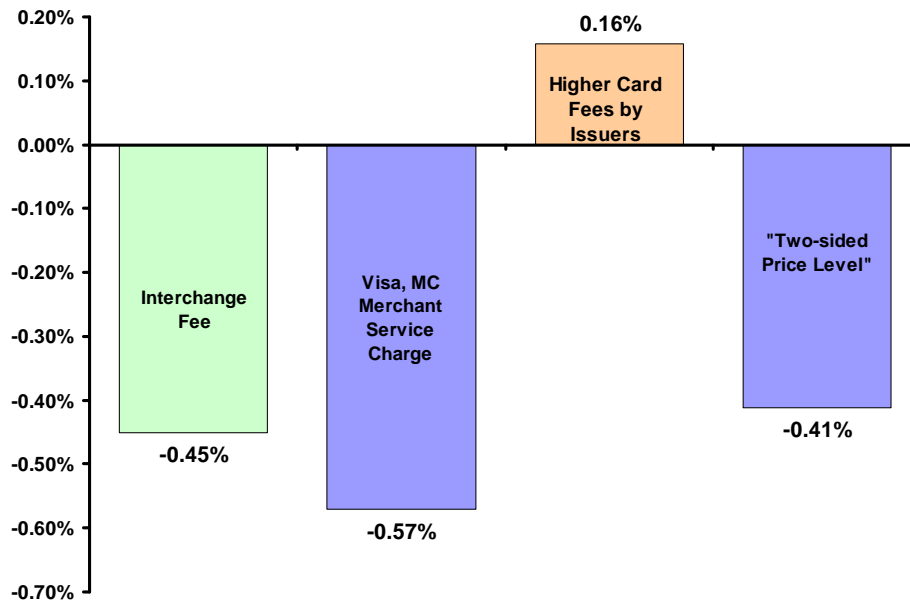
99. *See, e.g.*, the previous discussion of price structure and price level. *See also*, MasterCard, “Interchange Myths and Facts,”

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.”)

100. 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. *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.

Figure 9
“Two-Sided” Visa/MasterCard Price in Australia Following RBA Reforms



Source: RBA Statistical Bulletin C-3 and Chang, et al. (2005). (Note: uses midpoint of Chang, et al. estimates of increase in cardholder fees.)

F. 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 one Visa executive 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.¹⁰¹

101. 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

This intensification of competition among issuers generates additional benefits for the Australian public and directly contradicts warnings that reductions in interchange fees would cause catastrophic disruption to the networks and harm to the public.

G. 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.

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.¹⁰²

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

Contrary to predictions that consumers would stop carrying cards, RBA data show that the number of active credit card accounts in Australia continued to grow following the 2003 interchange fee reduction. RBA data also indicate 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.¹⁰³

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.”)

102. *Id.*, p. 543.

103. RBA Statistical Bulletin Reports C-1 and “Additional Credit Card Data,” at http://www.rba.gov.au/PaymentsSystem/PaymentsStatistics/payments_data.html.

H. Claims That Merchants “Pocket the Savings” Are Unsubstantiated

The only way merchants can recover billions of dollars of (marginal) costs is through the prices they charge to consumers for goods and services.¹⁰⁴ Empirically detecting the effect of small or modest changes in interchange fee rates on retail prices throughout an economy, however, is quite difficult. This has led Visa to suggest that there may in fact be no price reductions to consumers in Australia as a result of the RBA’s intervention to reduce interchange fees.¹⁰⁵ MasterCard flatly declares that “In Australia, where interchange is now regulated, lower interchange fees have not led to lower prices for consumers...” and “retailers have pocketed the savings attributable to lower interchange fees.”¹⁰⁶

Merchants are appropriately considered to be relevant “consumers” of card acceptance services provided by banks. Indeed, supporters of the continued use of interchange fees often cite the concept of “two-sided markets,” and contend that the relevant transaction fee is the sum of the merchant fee and cardholder fee. Ignoring reductions in merchant fees is clearly inconsistent with this conceptual approach.

Another inconsistency in the networks arguing that merchants will “pocket” the savings from reduced card acceptance fees is that the networks also frequently argue that competition *among banks* ensures that any excess interchange fee revenue will be rebated to (cardholder) consumers.

Even a monopolist will generally be expected to pass along at least some portion of a reduction in marginal costs, and as Rochet and Tirole explain, “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...”¹⁰⁷

104. In the United States, MasterCard and Visa credit card interchange fees reportedly reached an estimated 1.75% by 2004, and were still increasing, resulting in aggregate interchange fee payments on credit cards reported to be \$22.8 billion in 2006. Ken Posner and Camron Ghaffari, “The Empire Strikes Back,” Morgan Stanley Equity Research, March 8, 2005, p.4; *Cards & Payments*, May 2007, p. 27. Interchange fees on Visa branded credit and debit transactions combined accounted for 82.2% of the total (average, blended) fees of 2.08% merchants paid to process those transactions in 2004 – again, that percentage has been increasing, and is likely higher for credit than debit transactions. Presentation by Visa’s William Sheedy, in *Interchange Fees in Credit and Debit Card Industries: What Role for Public Authorities?* Federal Reserve Bank of Kansas City (2005), p. 180.

105. 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 (“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.”).

106. “Interchange Myths and Facts,” *supra* note 8.

107. Jean-Charles Rochet and Jean Tirole, *Externalities and Regulation in Card Payment*

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.¹⁰⁸ There is at least some anecdotal support for lower prices resulting from reduced card acceptance fees; some discount retailers, for example, do not accept cards at all (or are willing to lose some sales by limiting the types of cards they accept to those with low fees) as a way to reduce their costs and offer lower prices than their competitors.¹⁰⁹ Most major merchants, however, find it necessary to accept the leading card brands. If all competing merchants experienced cost reductions from lower card acceptance fees, it is reasonable to predict that retail prices will decline generally.

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. Indeed, MasterCard itself recognizes the effect of merchant fees on prices when it discusses the effects of merchant surcharging. According to MasterCard, surcharges need not cause merchants to lose sales, because “a decision to surcharge card sales (as an example of merchant discouragement behaviour) would be accompanied by the scope for reducing prices for non-credit card sales.”¹¹⁰ This is precisely the effect of merchant card fees on retail prices that MasterCard contends more generally does not occur.

Systems, 5 Review of Network Economics 1 (2006), pp. 4, 6.

108. 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.”).
109. For example, in the United States, discount warehouse club Sam’s Club (owned by Wal-Mart) formerly declined to accept Visa or MasterCard transactions. Sam’s Club recently began accepting MasterCard, but not Visa, transactions under undisclosed fee terms. ARCO gasoline retailers ceased acceptance of credit cards (private label as well as general purpose credit cards) in 1982, imposed surcharges on debit card transactions, and became known as a low-price supplier. “Bye, Bye, Charge It,” TIME, March 15, 1982 (“The company, though, thinks that drivers will keep pulling into its stations because Arco will be passing on its administrative savings to customers. The company says that it will be able to slash gasoline prices by as much as 3¢ per gal. in the coming weeks as a result of abandoning credit cards.”) ARCO (now owned by BP) still maintains “We do not accept credit cards because in doing so, we would incur additional fees of as much as three cents per gallon on a typical credit-card purchase. As most of our customers pay with cash, we do not accept credit cards as part of our strategy to sell high-quality gasoline at the lowest possible price.”)
110. Response by MasterCard Worldwide to the Issues for the 2007/08 Review, August 31, 2007, p.17.

VI. Conclusion

Defences of price fixing behaviour should not be accepted based on vague allusions to complex theoretical models which explain why the networks can maximize profits using interchange fees, but do not explain adequately that the public benefits from “self-regulation” of bank fees.¹¹¹

Claims that interchange fees solve an externality problem cannot be evaluated in a conceptual vacuum. 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 an interchange fee might overcome that externality; (3) what the theoretically optimal level of interchange fees should be; (4) whether 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 the level of the fees (if any), have the economically appropriate incentives to choose fees that maximize consumer welfare. MasterCard and Visa have not met these criteria.

What are commonly referred to as “network externalities” are actually a usage externality in which consumers do not face efficient price signals that induce them to internalize the differential cost to merchants of various forms of payment. These externalities are created and exploited – not solved – by network rules and pricing.

Payment systems can instead work well without interchange fees; absent other competitive restrictions, the resulting merchant fees would reflect competitive pricing. The most sensible policy is therefore a move to eliminate mandatory interchange fees, leaving any such fees to mutually voluntary contracts, and continuing to authorize, clear and settle transactions even when there is no governing interchange fee agreement. At the same time, given the evolution of the networks which has already occurred, it is important to free merchants as much as possible to react to high fees imposed either at the acquirer or network level.

MasterCard and Visa have repeatedly made predictions and assertions about changes to interchange fees which have proven to be incorrect. The RBA acted sensibly in acting notwithstanding these predictions and assertions, and its intervention has been successful and beneficial to the Australian public. The RBA should continue moving forward with its reforms.

111. 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...”).