

House of Cards: The Economics of Interchange Fees

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I. Introduction

The purpose of a payment system is to transfer money or a legal claim to money from buyers to sellers. All else equal, the efficiency and competitiveness of a payment system increases with the speed and accuracy with which money moves from buyer to seller and decreases with respect to the costs and fees associated with payments. More efficient and competitive payment systems reduce transaction costs affecting a multitude of other markets, expanding output and reducing prices in those markets. Like a sales tax, the cost associated with using an inefficient or monopolized payment system can distort consumer and merchant choices and can drive a wedge between the total amount paid by a buyer and the total amount received by the seller, making underlying markets in goods and services less efficient.

Payment systems have long been the focus of intense political, legal and regulatory disputes. In recent years, antitrust disputes have repeatedly erupted concerning credit card, debit card, and ATM card networks in the United States and other

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countries. In this paper we will focus on the debate over interchange fees in retail card payment systems. An interchange fee is nominally a transfer payment between two members of a payment network, the amount of which typically is specified by the network, in connection with a payment between the members' respective customers.¹ Interchange fees for retail transactions in the United States are generally paid by the merchant's bank (the "acquirer") to the consumer's bank (the "issuer") and passed along as the largest cost component of the fees paid by the merchant to the acquirer. Because interchange fees increase the marginal cost faced by merchants, they elevate retail prices for products and services purchased from those merchants. In effect, card issuing banks utilize acquiring banks to collect fees from merchants, the amount of which the issuers set collectively through their joint venture associations.

In the 1980s Visa prevailed in *NaBanco*, the most prominent antitrust challenge to credit card interchange fees in the United States.² The *NaBanco* court held that the *per se* rule against price fixing did not apply (because, the court ruled, the interchange fee was necessary to the Visa system, achieved efficiencies, and could be avoided by using another network); Visa lacked market power in a broad relevant market that included all forms of payments; and Visa's interchange fees achieved significant benefits while causing little or no harm, and so were permissible under the rule of reason.

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1. For more on the history of interchange fees in electronic and paper payment systems, *see*, Alan S. Frankel, *Monopoly and Competition in the Supply and Exchange of Money*, 66 Antitrust L.J. 313 (1998) ("*Monopoly and Competition*").
 2. *National Bancard Corp. v. Visa U.S.A., Inc.*, 596 F. Supp 1231 (S.D. Fla 1984), *aff'd*, 779 F.2d 592 (11th Cir. 1986).

The original economic analysis adopted by the *NaBanco* court and the continued applicability of those findings have been challenged in recent years.³ In the courts, the broad “all payment methods market” defense was rejected in the recent Department of Justice case against MasterCard and Visa.⁴ The recently settled *Wal-Mart* case, although a tying case, involved alleged harm to merchants flowing from the payment of anticompetitively elevated interchange fees on debit card transactions.⁵ Merchants have filed class action challenges to interchange fees in the United States, and European merchants have led an attack on the lawfulness of interchange fees before the European Commission.⁶ Regulators in many jurisdictions, including at least Australia, Israel, Mexico, New Zealand, Poland, Spain, Switzerland and the United Kingdom, have reportedly been scrutinizing interchange fees.⁷

3. See, e.g., Dennis W. Carlton and Alan S. Frankel, *The Antitrust Economics of Credit Card Networks*, 63 Antitrust L.J. 643 (1995), Frankel, *Monopoly and Competition*, David Balto, “Interchange Fee Rationales Don't Hold Up,” American Banker, March 09, 2000; and David Balto, “Comment: Let's Reevaluate the Effects of Interchange Fees,” American Banker, March 14, 2000.

4. *United States of America v. Visa U.S.A., Inc., et al.*, 163 F.Supp 2d 322 (S.D. NY 2001).

5. *In re Visa Check / Mastermoney Antitrust Litigation*, 2003 U.S. Dist. LEXIS 4965 (E.D. NY 2003).

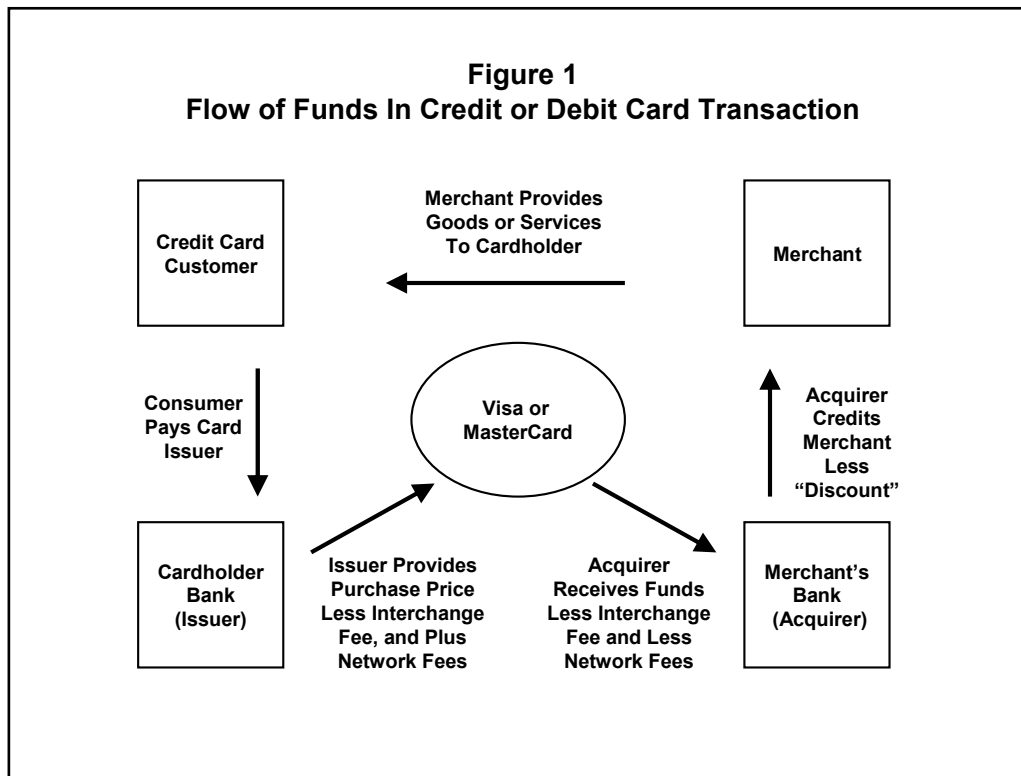
6. *Reyn's Pasta Bella, LLC v. Visa U.S.A.*, 259 F. Supp. 2d 992, 997 (N.D. Cal. 2003); Official Journal of the European Communities, Notice Pursuant to Article 19(3) of Council Regulation No. 17, Case COMP/29.373 – Visa International (2001/C 226/10).

7. MasterCard Incorporated 2003 Form 10-K, p. 2 (“Interchange fees are the subject of increasingly intense regulatory scrutiny worldwide...”)

MasterCard and Visa (the “Associations”), their member banks and a number of economists have vigorously defended both the alleged necessity (or the efficiency) of interchange fees and the unrestricted manner in which those associations set the level of interchange fees. This article describes the anticompetitive effects of interchange fees, then summarizes and responds to some of the recent defenses of the fees.

II. Anticompetitive Effects of Interchange Fees

A fundamental antitrust issue confronting the Associations is that the fees are a form of price fixing among horizontal competitors – the financial institution members of the MasterCard and Visa joint ventures. Interchange fees lead to significant inefficiencies and are paid by consumers in the form of higher retail prices. Yet they are not essential to the existence or efficient operation of payment systems.



A. Interchange Fees Fix Minimum Merchant Fees

The participants and net cash flows involved in a typical credit or debit card transaction are illustrated in Figure 1. A consumer is issued a card bearing the name of a branded network.⁸ The consumer (“cardholder”) presents the card to a merchant in connection with a retail purchase. After a transaction is approved and completed at the point of sale, the merchant submits the final transaction record to its transaction “acquirer” – the merchant’s bank (or a processing company acting on behalf of the merchant’s bank).⁹ The merchant is paid with funds advanced by the issuer on the consumer’s behalf. This payment occurs through an interbank settlement system in which the association aggregates the payment authorizations to and from all members and adjusts each member’s settlement balances to reflect its new net position. Payments due to a merchant are credited to the acquirer, which in turn credits the merchant’s account. The consumer, of course, is obligated to repay the issuer for funds advanced on the consumer’s behalf, and in a debit card transaction payment is taken directly from the customer’s deposit account. The issuer generally posts the entire transaction amount to the cardholder’s account.¹⁰ The issuer, however, keeps the interchange fee; it remits less net funds than the transaction amount to the acquirer in the settlement process.

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8. For now we restrict the discussion to so-called “four-party” networks like those operated by MasterCard and Visa, in which the card issuer is a member bank (or other financial institution).
 9. Unless the context requires a distinction, our discussion of issuers or acquirers includes the activities of the banks’ third party processing agents.
 10. MasterCard and Visa collect more funds from U.S. cardholders than the sum of the amount remitted to acquirers and the amount kept as an interchange fee by issuers in connection with most purchases from merchants whose prices are denominated in currencies other than U.S. dollars. This extra revenue is kept by the Association, not the issuing bank (although the issuing bank might add an additional fee of its own on transactions denominated in foreign currencies). See, Statement of Decision, *Adam Schwartz v. Visa International Corp., et al.*

Because acquirers only receive the net amount remaining after deduction of the interchange fee, they can, at most, only pass on this net amount to the merchant. The interchange fee effectively sets a floor under the “merchant discount” – the fee charged by acquirers to merchants to accept a card transaction – and the fixed interchange fee portion comprises most of the merchant discount amount.¹¹

If interchange fees were eliminated, merchant fees would therefore fall dramatically, and retail prices by a small but significant amount. While technological progress has continued to reduce acquirer costs and, therefore, the acquirer markup over the interchange fee, MasterCard and Visa have in recent years increased interchange fees enough to cause merchant fees to increase. These rising fees are imposed by industry-wide associations of financial institutions that have come together in joint ventures and collectively fixed the minimum fee they charge to merchants.¹² The question is whether price fixing is economically justified in this instance. We believe it is not.

case no. 822404-4, Alameda County, CA (2003). (Frankel testified for the plaintiffs in *Schwartz*.) The associations also collect transaction processing and membership fees from their members.

11. See, e.g., David Evans and Richard Schmalensee, *Joint Venture Membership: Visa and Discover Card* (1993), Chapter 12 in *The Antitrust Revolution* (1999), p. 289n (“the interchange fee places a floor on the merchant discount.”); Howard Chang and David Evans, *The Competitive Effects of the Collective Setting of Interchange Fees by Payment Card Systems*, 45 Antitrust Bulletin 641 (2000) at 643 (“the interchange fee is the major component of acquirers’ costs of servicing merchants.”); “Interchange Fee Increase a Chance to Review Pricing,” *American Banker*, March 3, 1998 (“Much of the industry employs interchange-plus pricing strategies, and a repricing may not be necessary for these segments.”); John Small and Julian Wright, “Decentralized Interchange Fees in Open Payment Networks An Economic Analysis,” (December 2000); Brief of Appellee Visa U.S.A., Inc. in *NaBanco*, at 64 (arguing that if the interchange fee falls “. . . merchants banks will drive the merchant discount rate down by the amount of reduction in [the interchange fee]. . .”); “The Case for PIN-Based Debit Acquiring,” *Credit Card Management*, July 1, 2001.
12. Evans and Schmalensee, *Paying With Plastic*, p. 276 (“Visa could not deny [in *NaBanco*] that it had engaged in price fixing, but despite the general per se rule against such behavior, Visa had a possible defense.”)

B. Interchange Fees Tax Users and Non-Users Alike And Generate Inefficiencies

Retail prices have historically been characterized by “price coherence” – prices are the same regardless of the payment method used at a particular retail merchant location.¹³ As a result, not only card customers, but all consumers supply the funds that are collected as interchange fees. Consumers cannot escape paying higher retail prices resulting from interchange fees by using cash, checks, or PIN debit cards (which rely on networks originally developed for ATM terminals and have historically incurred much lower interchange fees, if any) without foregoing all purchases from merchants that accept the more costly credit and offline (i.e., MasterCard and Visa signature-based) debit cards.¹⁴ In effect, there a cross-subsidy is paid from low cost customers to high cost card customers.¹⁵

13. See, e.g., Dennis W. Carlton and Alan S. Frankel, *The Antitrust Economics of Credit Card Networks*, 63 *Antitrust Law Journal* 643 (1995); Alan S. Frankel, *Monopoly and Competition in the Supply and Exchange of Money*, 66 *Antitrust Law Journal* 313 (1998).

14. See, e.g., Michael L. Katz, “Commissioned Report,” *Reform Of Credit Card Schemes In Australia, Volume II* (August 2001), p.41 (“When card-based transactions are more costly to merchants than are non-card-based transactions, non-card users are hurt by card use because merchants have incentives to raise retail prices to reflect their higher costs due to some consumers’ using relatively expensive payment means.”) A reduction or elimination of interchange fees would likewise result in lower retail prices. See, e.g., Reserve Bank of Australia, Payment Systems Board, *2004 Annual Report*, p. 12 (“Given the competitive environment in which most merchants operate, these lower fees are likely to eventually find their way into lower prices of goods and services than would have otherwise have been the case.”). In addition to the antitrust issues involved with interchange fees, there are important distributional implications. Customers who never use MasterCard or Visa cards are disproportionately poorer than card customers. For example, only 28.5% of families with annual income below \$10,000 possess a bank credit card, compared to 95.8% for families with income above \$100,000. See, U.S. Census Bureau, *Statistical Abstract of the United States: 2004-2005*, Table No. 1186. There is also a racial dimension. See, “Study Shows Card Use Linked To Race,” *Cardline*, May 24, 2005, citing a study based on data from the Federal Reserve’s Survey of Consumer Finances for the years 1992 through 2001 (“...59% of African-American households had credit cards in 2001, compared to 53% for Latinos and 82% for whites.”)

15. Interchange fee supporters respond by noting that such apparent cross-subsidies are

1. Interchange Fees Induce Higher Issuer Costs

Like a sales tax, the interchange fee distorts the underlying retail markets for goods and services by increasing the spread between the amount paid by buyers and the amount received by sellers. Because it is a tax collected by card issuing banks, it also induces additional issuer “rent-seeking” efforts.¹⁶ Issuers share some of the fee proceeds with cardholders in the form of perks or rebates, and they sometimes discourage other forms of payment that are less costly to merchants and thus less profitable to the issuers.

The direct effect of an increase in interchange fees is an increase in the profits earned by card issuers on both existing and new customer accounts.¹⁷ All else equal, these additional profits increase issuers’ economic incentive to solicit cardholders to accept and use the issuers’ cards. Perks and rebates on MasterCard and Visa credit and

ubiquitous even in competitive markets. See, e.g., David S. Evans, “Bank Interchange Fees Balance Dual Demand,” *American Banker*, January 26, 2001 (“All customers end up paying higher prices as a result of retailers offering parking, tailoring, escalators, convenient store hours, gift-wrapping, and many other amenities that are used by only some customers.”). Although transaction costs may prevent more precise pricing systems, however, that does not imply that they are undesirable. See, Dennis W. Carlton and Alan S. Frankel, *Transaction Costs, Externalities, and Two-Sided Payment Markets*, forthcoming, *Columbia Bus. Law Rev.* (2005). Moreover, decisions not to charge differentially in such cases are typically made by independent, competing firms, not by all providers of, e.g., parking lots, imposing this outcome on all merchants, and the cost of providing each service is likewise typically determined in decentralized competitive markets, not cartels.

16. The concept of rent-seeking costs as economic waste originated with Gordon Tullock (although the term was coined later). See, Gordon Tullock, *The Welfare Costs of Tariffs, Monopolies and Theft*, 5 *Western Economic Journal*, 5 224 (1967). Rent seeking refers to costs incurred by parties seeking the right to collect profits, such as profits flowing from a government grant of a monopoly. In this case, the monopoly profits are collectively set interchange fees that issuers can obtain by incurring costs to tap into the pool of cardholders and cardholder spending.
17. Interchange fees reportedly accounted for 10% of Association credit card issuer revenue in 1997 and 16% (\$16.63 billion) in 2004. Credit Card Management, May 1999; May 2005. According the Federal Reserve, “Credit card earnings have been consistently higher than returns on all commercial bank activities” and profits appear to be higher for large issuers than smaller issuers. Board of Governors of the Federal Reserve System, “The Profitability of Credit Card Operations of Depository Institutions,” June 2004.

debit card transactions essentially represent a kickback of some of the interchange fee revenue received from merchants, and can result in a negative effective transaction cost to consumers who use the cards. Cardholders are thus encouraged by issuers to obtain and use their cards, and the cards with the highest interchange fees generate the greatest profits and permit the issuer to kick back more of those profits to cardholders.¹⁸ Like cash customers, cardholders pay higher retail prices resulting from the higher interchange fee expense.¹⁹ No individual consumer, however, has an incentive to choose less costly payment methods as long as the retail price does not vary with that choice.²⁰

Additional card issuing profits generated by interchange fees (and increases in interchange fees) spur more of the ubiquitous marketing efforts in the United States aimed at current and potential card customers. U.S. households received an estimated 5.23 billion direct mail credit card solicitations in 2004 – 68 offers per year per household receiving solicitations, on average, and a five-fold increase since the early 1990s.²¹ This flood of mail continues to grow despite a sharp drop in response rates, from 2.8% in 1992

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18. Only a portion of interchange fee revenues are returned in this way to consumers. For example, one cash-back Visa card plan promotes “up to 2%” cash back, but the 2% rebate percentage applies only on purchases above \$40,000 per year and there is an annual limit on total rebates of \$1,000. The result is that the maximum possible rebate on the card is about 1.4%, and that is possible only at a narrow range of spending on that account of around \$70,000 per year (about 13 times average annual spending per U.S. bank credit card account). At average charge volume, rebates on this and some other cash-back cards are less than 1%.
19. Chakravorti and Emmons suggest that card users who roll over balances and pay interest may be subsidizing other card holders as well. Sujit Chakravorti and William Emmons, *Who Pays for Credit Cards?*, 37 J. Consumer Affairs 208 (2003).
20. An individual cardholder can only be a net beneficiary if the incremental benefits offered to the cardholder as a result of the interchange fee revenue exceeds the total increase in retail prices paid by the cardholder as a result of interchange-induced higher retail prices on all of the cardholder’s cash, check and card purchases from merchants who accept credit card and signature debit cards.
21. “U.S. Households receive record 5.23 billion credit card offers in 2004 reports Synovate's Mail Monitor®,” Press Release, March 22, 2005.

to a low of 0.4% in 2004.²² Of course, sellers promote their products even in competitive markets, and it is possible that even without interchange fees some consumers would value a particular perk enough that an issuer would provide it, funding its cost from fees collected from its own customers. Such competitively determined promotional efforts are generally innocuous. Similar, but expanded efforts stimulated by prices fixed at supracompetitive levels, however, can add significantly to the social cost of monopoly.

2. Interchange Fees Inefficiently Distort Payment Choices

As the interchange fee paid to an issuer of credit cards increases, issuers offer perks and rebates on a greater percentage of their cards, and enhance those programs, increasing the incentive for consumers to use credit cards rather than other payment methods. This can cause inefficiency and higher prices to all consumers in all retail product markets.

Credit and charge cards, followed by signature debit cards, are typically considered by merchants to be the most expensive payment methods they accept.²³ Interchange fees charged by MasterCard and Visa for offline debit card transactions and credit cards have been much higher than interchange fees charged by regional ATM/debit networks for online, PIN-verified debit transactions (many of which at one time often imposed no interchange fee, settling at par). Banks have little incentive to promote the

22. *Id.*

23. Board of Governors of the Federal Reserve System, *Report to the Congress on the Disclosure of Point-of-Sale Debit Fees*, Submitted to the U.S. Senate Committee on Banking, Housing, and Urban Affairs (November 2004), at 15 (“[M]any merchants view cash, checks, and PIN debit as comparable in cost on an average per-transaction basis and... they view signature debit and credit as relatively more expensive. They further report that cash costs merchants the least of any current retail payment method. Anecdotal reports from merchants indicate that PIN debit costs less than checks, although, as noted earlier, some large retailers that have developed the systems to efficiently process checks report their per-transaction cost for a check is lower than that for a PIN debit transaction.”)

use of cards generating lower fee revenue even if such cards are more efficient. We thus observe the perverse situation in which banks promote *offline* MasterCard/Visa debit card usage and discourage online PIN-debit transactions, despite the added safety and speed (and thus efficiency) of the online PIN-based networks.²⁴

C. Competitive Alternatives Are Available

One of the defenses offered in *NaBanco* was that Visa could not function without the unrestricted ability to set interchange fees. There are, however, a variety of alternatives available that do not raise the same competitive concerns.

1. Par Collection

“Par” collection refers to the clearing and settlement of interbank payment claims at the face amount of the claim. Although the clearinghouse or network may assess fees to the issuer and acquirer to cover the clearinghouse’s own costs, no fee is paid by the issuer to the acquirer, or by the acquirer to the issuer, as a condition for the clearinghouse to process the transaction. (We discuss below an alternative in which such payments might be permitted, when voluntary, but not required.) In a par collection system, when an issuer’s customer makes a \$50 purchase, the issuer’s settlement balance is debited the

24. Federal Reserve System, *Report to the Congress on the Disclosure of Point-of-Sale Debit Fees*, at 15n (“because signature debit is significantly more likely to result in fraud than is PIN debit, it generates higher fraud-related costs.” and “Merchants also generally consider cash the quickest method of payment at the checkout line.”) As with credit cards, some banks have offered promotions and perks like frequent flyer miles or rebates for use of signature debit transactions, but not for PIN transactions (for which they sometimes instead impose a service charge), even when both can be performed using the same card. Inefficient incentives provided to consumers to choose credit cards over PIN debit cards was one of the primary motivations for the Reserve Bank of Australia’s intervention to reduce interchange fees on credit cards. I.J. Macfarlane, Governor, Reserve Bank of Australia, “Gresham’s Law of Payments,” Speech before AIBF Industry Forum, Sydney, Australia, March 23, 2005.

\$50 (plus any clearinghouse charges), and the acquirer's settlement balance is credited the identical \$50 (less any clearinghouse charges).

Most consumers are familiar with par collection through their use of the check clearing and settlement system. If consumer A makes a check payable to consumer B for \$50, B can take it to A's bank and cash it for exactly \$50. A's bank cannot charge B a fee for cashing the check, although it may charge its own customer, A, according to the contractual fee terms of A's checking account plan. With par collection (and elimination of rules restricting merchant pricing and promotional freedom), encouraging the use of particular forms of payment is left to each merchant acting independently in response to the costs associated with each method.²⁵

Par collection has worked successfully in both paper-based and card-based payment systems. The Interac Direct Payment network, for example, is currently the most popular payment method used in Canada, and it achieved this success without charging an interchange fee.²⁶ In Denmark, well over 80 percent of the value of non-cash transactions is accounted for by debit cards that settle at par.²⁷ In Finland, par debit and ATM cards account for roughly 59 percent of the value of non-cash transactions.²⁸ In the

25. Frankel has previously explained how par collection for checking developed as a result of competition in U.S. currency and check clearing and settlement markets. *Monopoly and Competition*, p. 328. *See also*, Part III(C)(2), *infra*. Competition among banks cannot eliminate interchange fees in electronic networks in a similar way because competing banks or networks cannot compel issuing banks to accept transactions transmitted to them over an alternative network.

26. Interac Association, "A Backgrounder," January 2003 (http://www.interac.ca/pdfs/backgrounder_en.pdf, visited April 19, 2005.) Debit card systems in New Zealand also cleared and settled at par until 1998. EFTPOS Industry Working Group, Discussion Paper: Options for EFTPOS Interchange Fee Reform, July 2002, p.6.

27. European Payment Cards Yearbook, 2001-2002, Volume 2, §6.

28. European Payment Cards Yearbook, 2001-2002, Volume 2, §7.

United States, the Interlink network was the largest PIN-debit network while operating on a par basis. Visa later acquired Interlink, imposed an interchange fee on its transactions, and has steadily increased those fees.²⁹

Defenders of interchange fees have responded to the possibility of par collection by claiming that it is just another form of price fixing. According to this argument, par collection fixes an interchange fee just as MasterCard and Visa do now, only it fixes the level of the fee at zero. Otherwise, they argue, it is no different in economic substance than an interchange fee set at any other level.³⁰ In our view, characterizing the absence of any fee between the members of an association as the *imposition* of a fee fixed at zero creates unnecessary semantic confusion. Whether referred to as a fee fixed at zero or a par collection system in which no fee is permitted, eliminating interchange fees would benefit the public by reducing retail prices, reducing the incentive to use less efficient payment systems.

29. Plaintiffs in *Wal-Mart* argued that par collection was the competitive price level for debit card transactions. *See*, Plaintiffs Reply Memorandum of Law in Support of Plaintiffs’ Motion for Summary Judgment, *In re: Visa Check/MasterMoney Antitrust Litigation* (E.D. New York, CV-96-5238), at 17 (“Plaintiffs have also offered substantial evidence that the competitive level for on-line debit pricing is at par. This evidence includes: in 1991, fourteen years after on-line POS debit networks began operating, the average on-line debit interchange fee was below par, with 19 of the top 20 on-line debit networks clearing at par or with a negative interchange fee; Visa’s early recognition that if left ‘uncontained,’ the Regionals would maintain an at par interchange structure which would lead to the ‘demise’ of defendants’ off-line debit programs; Visa’s development of its plan to eliminate the Regionals’ at par pricing structure; banks offer debit cards to avoid the cost of checks and satisfy consumer demand and would offer them even without interchange; the Iowa legislation which would have required all debit transactions to clear at par; the MC 1980-81 Debit Strategy of a clearly identified, untied, at par off-line debit card; and at par pricing in Canada.” (citations omitted)).

30. *See*, e.g., *NaBanco vs. Visa U.S.A., Brief of Appellee Visa U.S.A., Inc.*, Eleventh Circuit Court of Appeals, June 11, 1985, p.44. (“par is simply another ‘price’”)

Figure 2
Settlement Network

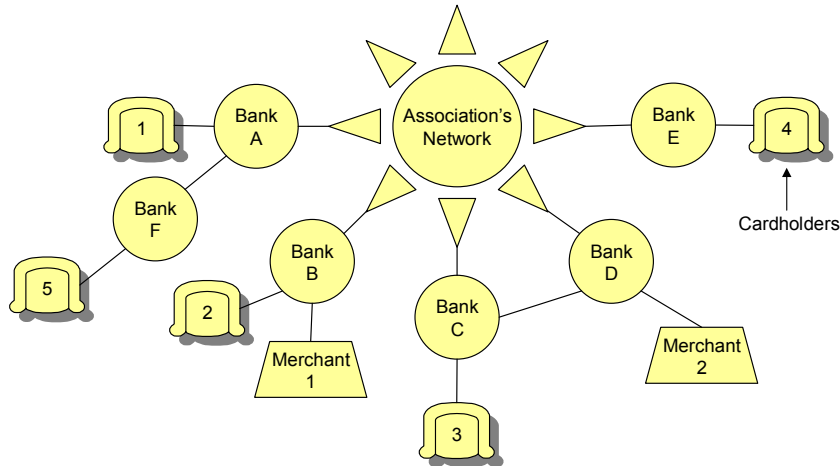


Figure 2 shows a schematic diagram of a card settlement system. Many large banks (e.g., Banks A-E) connect directly to the central clearinghouse, but other banks (e.g., Bank F) may connect via a correspondent bank. Some banks serve merchants, some serve cardholders, and some serve both. When Cardholder 2 makes a purchase from Merchant 1, the transaction can be cleared and settled entirely by Bank B (absent a rule preventing it), since both merchant and cardholder are its customers. This is termed an “on-us” transaction. When Cardholder 1 makes a purchase from Merchant 1, however, the transaction flows through the association’s settlement system. In a par collection system, each acquirer competes for the patronage of merchants, and each issuer competes for cardholders, with no fee paid by one to the other. Instead, merchants pay

acquirers for services, and cardholders pay issuers for services.³¹ Banks compete on the basis of their own costs and in light of competition with other banks, not on the basis of cartel-imposed fixed prices and subsidies. As with a check or par PIN debit purchase, competition among acquirers determines how much of the purchase amount is deposited in the merchant’s account. Given the existence of a proven alternative that requires no collective price fixing, it is difficult to see why issuing banks should be allowed to exercise unrestrained market power in the collective imposition of interchange fees.

2. Mandatory Unilateral or Bilaterally Negotiated Fees

Interchange fee defenders claim that par collection is simply another price – zero – on a continuum, and claim therefore that the only substantive alternative to collectively set interchange fees is a decentralized interchange fee system.³² They claim that in a decentralized system, each card issuing bank would announce the fee it will charge to acquirers to redeem its customers’ card transaction obligations. Alternatively, pairs of banks – issuers and acquirers – would enter into bilateral contracts governing the amount of interchange fees, if any, paid in connection with card transactions between them.³³

The Associations and their consultants contend that any such decentralized setting of

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31. Claims that issuers are also providing services to merchants assume some form of externality – that the services provided to cardholders also benefit merchants in some way not reflected in the benefits to the merchants’ card using customers. These claims, as detailed by economists defending interchange fees, are discussed in the next section.
 32. Howard H. Chang and David S. Evans, *The Competitive Effects of the Collective Setting of Interchange Fees by Payment Card Systems*, 45 Antitrust Bulletin 641 (Fall 2000), at 654-55 (“the obvious potential remedy to this supposed competitive problem [is] a prohibition on the setting of *any* interchange fee including zero.”); John Small and Julian Wright, “The Bilateral Negotiation of Interchange Fees in Payment Associations” (September 2001), p. 4. (“Bilateral negotiation in respect of interchange is the only decentralised alternative to the current arrangements”).
 33. The bilateral “solution” was advanced as an alternative remedy to a par collection system by the plaintiff in *NaBanco*. *NaBanco vs. Visa U.S.A.*, 596 F.Supp 1231 (S.D. Fla. September 20, 1984).

interchange fees would be unworkable, and that the only solution therefore is to leave networks free to fix interchange fees at whatever level they deem appropriate. This claim is incorrect.

The first criticism of decentralized interchange fees is a claim that the thousands of member banks would have to enter into a costly and impractical web consisting of millions of contracts to connect each bank to every other bank.³⁴ In fact, a decentralized payment system does not require that each bank have a fee contract with every other bank.³⁵ Some participating banks in the Visa and MasterCard systems, for example, already have the equivalent of correspondent arrangements with larger members of the associations, and many banks enlist the services of third party processors to handle their card transactions.

A relatively small number of banks could have direct contracts and settlement accounts with other large members and processors while offering processing, clearing and settlement services to other banks. To illustrate, the largest seven acquirers account for about 92 percent of all MasterCard and Visa bank card purchase volume, while the

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34. William Baxter, *Bank Interchange*, p. 556 (“if the number of . . . banks participating in this system is large, as it often will be, a complete set of bilaterally negotiated agreements would be excessively cumbersome and costly. Some uniform understanding [with respect to the interchange fee] would appear to be essential to any cost-effective payment system.”); Chang and Evans, *Competitive Effects*, p. 655 (“To replicate the uniform acceptance that MasterCards currently enjoy, the thousands of issuers and acquirers would all have to reach millions of independent agreements to accept each others’ cards.”); Small and Wright, *Bilateral Negotiation*, p.12 (“bilateral bargaining would require many millions of separate negotiations given Visa alone has more than 21,000 members internationally.”)
35. Just as Federal Express uses a hub-and-spoke network to permit a package to travel to from any airport in its network to any other airport without maintaining direct flights between every city pair, banks can use correspondent banks and processors to connect to clearinghouses and other banks. Federal Express serves 378 airports worldwide with 645 aircraft, but not by having each plane make 221 flights per day to link each city pair (142,506 direct flights). FedEx instead maintains ten air express hub facilities. “FedEx Express facts,” <http://fedex.com/us/about/overview/companies/express/facts.html#air>.

largest ten issuers account for 82 percent of charge volume.³⁶ Fewer than seventy contracts (no more than ten per bank), not millions - would be required to cover over three-quarters of all current charge volume.³⁷ Individual banks not interested in direct contracts with many other banks need only shop for a single correspondent services contract. Particularly with modern data processing and communications technology, such correspondent relationships can be quick and efficient much as the Internet is effective despite not using a single, central “switch.” As another example, the Canadian Interac network operates without any central switch.³⁸

The second criticism of decentralized interchange fee setting is the claim that each issuer – no matter how small – would have monopoly power over each acquirer. This concern derives at least in part from another competitive restriction imposed by MasterCard and Visa – their so-called “honor all cards” rules. A merchant that accepts MasterCard branded cards issued by any issuing bank must accept MasterCard cards issued by all MasterCard member banks. The same is true of Visa.³⁹ If a merchant must accept an issuer’s cards, then even the smallest issuer has tremendous leverage over the

36. Nilson Reports #808 (April 2004), #814 (July 2004), #816 (August 2004).

37. A bank would not need contracts governing “on us” transactions in which it was both issuer and acquirer. On-us processing competes with Visa and MasterCard and could enable a large issuer to offer a reduced merchant discount rate. Visa recently issued a rule prohibiting banks from self-clearing on-us transactions. *See*, “Tighter On-Us Processing Rules at Visa,” *American Banker*, February 16, 2005.

38. *See*, Robert D. Anderson and Brian Rivard, *Antitrust Policy Towards EFT Networks: The Canadian Experience in the Interac Case*, 67 *Antitrust Law Journal* 389 (1999); Alan S. Frankel, *Editor’s Note: EFT Networks And The Canadian Experience*, 67 *Antitrust Law Journal* 385 (1999).

39. As a result of the settlement in the Wal-Mart litigation, both MasterCard and Visa agreed to permit merchants to accept their respective credit cards without necessarily accepting their same-branded debit cards. Their “honor all cards” rules were modified to instead consist of separate “honor all credit cards” and “honor all debit cards” rules. *Notice of Settlement of Class Action*, In Re: VISA Check/MasterMoney Antitrust Litigation CV-96-5238 (E.D.N.Y., 2003). Merchants still cannot selectively refuse an association’s credit cards or debit cards based on the identity of the card issuing bank.

acquirer and its merchants. A small issuer, for example, could refuse to sign a contract with acquirers unless the acquirers agreed, say, to a 50% interchange fee. If only one issuer demanded such a high fee, then a merchant would face the high fee on only a small number of transactions, and might therefore decide to continue accepting cards. When all issuers evaluate their profit-maximizing interchange fee, however, the “hold out” problem can lead fees by all banks to the monopoly level.

William Baxter concludes, “The monopsonistic position of [the issuer] bank... implies that each [issuer] bank cannot be permitted to announce daily the price at which it will [settle transactions] to be billed to its card holders...” and “it is essential that the participants in a four-party payment system collectively adopt some internal mechanism that prevents individual exploitation of the monopsony power endemic to such systems.”⁴⁰ Otherwise, he observes, “any one bank can exploit the monopsonistic position it enjoys over its own [transactions] and can realize 100 percent of the revenue gains while suffering only a fraction of the adverse consequences...”⁴¹ This ability to exploit acquirers (and thus merchants) while deflecting most of the incidence of the resulting harm to others occurs because, he assumes, “it is not feasible for [acquirers] to discriminate against [transactions] en route to that particular [issuer] without creating, on the part of merchants, an incentive to refuse to honor cards issued by that [issuer]...”⁴²

40. Baxter, *Bank Interchange*, pp. 576-77. “Monopsony” power is equivalent to monopoly power, but exercised over a seller instead of a buyer. In Baxter’s formulation, each acquirer “sells” its claim for reimbursement to the issuer, the price being the interchange fee.

41. Baxter, *Bank Interchange*, p. 577.

42. Baxter, *Bank Interchange*, p. 576. Baxter assumes that such selective refusal of a particular issuer’s cards is unlikely to occur “at least outside the context of an on-line electronic system” because selective refusal of cards would “substantially increase the transaction costs of all merchants and of all card holders. The utility of the system to all participants would diminish, as would the system’s viability in competition with other payment systems.” *Id.*

Other, more recent fee defenders echo Baxter’s conclusions.⁴³ Small and Wright, for example, conclude that “[u]nder the honour all cards rule, bilateral bargaining allows issuers to ‘hold-up’ acquirers by extracting highly skewed interchange fees during bargaining.”⁴⁴ In *NaBanco*, Visa referred to this scenario as a “classic problem of ‘market failure.’”⁴⁵

The same logic that leads fee supporters to conclude that banks accounting for even a small share of card issuing will have monopoly power in a bilateral system also implies that each *network* will have monopoly power if it accounts for even a small shares of all transactions, so long as it is “not feasible” for merchants to drop acceptance of the brand due to competition from other merchants that do accept cards (some of

Despite the fact that most transactions now are processed via “on-line electronic systems,” MasterCard and Visa prohibit their members from selectively refusing cards presented by cardholders based on the identity of the card issuing bank.

43. David Evans and Richard Schmalensee, *Economic Aspects of Payment Card Systems and Antitrust Policy Toward Joint Ventures*, 63 *Antitrust Law Journal* 861, at 889 (“For the obligation of universality to be a reality, there must be advance agreement – common to all members – about the terms of their obligations, including the terms upon which issuing banks are obligated to purchase transactions paper resulting from the valid use of a member-issued Visa card or MasterCard to purchase goods or services.” (This obligation of universality is the honor all cards rule.)); Small and Wright contend the existence of the Associations’ own “honor all cards” restrictions is a key reason why the Associations must fix interchange fees. Small and Wright, *Bilateral Negotiation*, pp. 3-4. Baxter relied instead on allegedly high transaction costs resulting from the then still common manual processing of credit card transactions to make the same argument – that merchants must accept cards issued by all member banks, if they are to accept any.
44. Small and Wright, *Bilateral Negotiation*, pp. 4-5. They continue, “Given the hold-up power of issuers, there will be an escalation of interchange fees...” “[E]ach individual issuer... takes advantage of its hold-up power to try to secure higher interchange fees than its rivals.” They conclude, “Since any issuer, no matter how small, has the ability to hold-up an acquirer – destroying its business if it does not agree with the issuer’s terms, this leaves issuers in a very strong bargaining position.” *Bilateral Negotiation*, p. 13.
45. Brief of Appellee Visa, U.S.A., Inc., in *NaBanco*, p. 32. Visa states, “In a variety of circumstances... the market for one reason or another is incapable of functioning. In those circumstances, the problem of opportunistic behavior – which is simply the operation of self-interested conduct in the context of market failure – takes over and produces destructive results.” *Id.*, at 33n. This statement is a reasonable characterization of the current situation concerning interchange fees.

which, moreover, may pay lower interchange fees).⁴⁶ Although merchants collectively might prefer not to accept a more expensive card brand, each may find itself at a prohibitive competitive disadvantage if it refuses a popular brand.⁴⁷ In effect, there is a “barrier to exit” by a merchant once most merchants accept that brand. Although each network’s issuers get the full benefit of additional interchange revenue, their cardholder customers pay only a portion of the resulting higher retail prices, and cannot, in any event, escape the higher prices by using an alternative payment method.

The “monopsony” argument against bilateral interchange fees is predicated on the assumption that it is not “feasible” (or not permitted under Association rules) for merchants to refuse or discriminate among cards based on the identity of the *issuing bank*.⁴⁸ It is this inability to refuse a particular bank’s cards that gives individual banks – “*no matter how small*” – monopoly power to increase interchange fees. To the extent that this inability is driven by the associations’ own “honor all cards” rule, however, the problem is at least in part self-inflicted, and this effect of the rule is anticompetitive.

3. Voluntary Bilateral Fee Agreements

The most significant conceptual problem with bilateral interchange fee contracts arises from the presumption implicit in discussions of such a scenario that each transaction must fall under the coverage of a fee contract, due to the Associations’ honor

46. Following the *Wal-Mart* settlement, for example, it was reported that Wal-Mart itself negotiated low credit and debit interchange fees from Visa. MasterCard apparently followed suit at least with respect to debit cards. See, “Wal-Mart, MasterCard Reach Agreement on Signature Debit,” *American Banker*, June 22, 2004.

47. See, e.g., Rochet and Tirole, *Cooperation among Competitors: Some Economics of Payment Card Associations* (October 2001); and Graeme Guthrie and Julian Wright, *Competing Payment Associations*, University of Auckland Working Paper No. 245, (2003).

48. Because Association rules require merchants to “honor all cards,” regardless of the originating bank, merchants are not allowed to refuse or discriminate among cards based on the identity of the issuing bank whether or not it is technically feasible to do so.

all cards rules. Implicit in this assumption, however, is the additional assumption that if the collective setting of interchange fees was prohibited, the Association would refuse to settle transactions between members who have not entered into a bilateral fee contract. But requiring that a pair of members enter into a fee agreement with one another (let alone requiring that each acquirer have a fee agreement with *all* issuing members) as a precondition for settling transactions between them would itself be anticompetitive. There is no reason why an Association need *require* that fees be paid from one member to another in connection with their transactions. The Association could *permit* members to enter into fee agreements, and could provide the service of moving the fee proceeds from one member to another as part of the settlement process. Any such bilateral fee agreement, however, should be entered into voluntarily by the parties, and the Association should not refuse to settle transactions for which no fee agreement is in place. It is only by presenting mandatory, yet universal bilateral interchange fees as the only alternative to collectively set interchange fees that fee supporters can contend that collectively set fees are the only practical solution. But this is a false choice, driven by the Associations' own actual or hypothetical competitive restrictions.

4. Other Competitive Alternatives

The key factor that led to the competitive elimination of interchange fees in currency and check markets was the ability of merchants and their banks to choose the method used to transport financial claims back to the issuing bank for redemption.⁴⁹ The ability of acquirers to utilize competing transportation systems (and correspondent banks) led issuers to abandon their interchange fees altogether and join par collection

49. See, generally, Frankel, *Monopoly and Competition*.

clearinghouses. If merchants, who typically must pay interchange fees today, had the ability to choose the payment network over which to process the transaction, the competitive result would likely be a par collection system, or, at the very least, a system with significantly lower interchange fees.⁵⁰ It is the lack of real competition and choice for those paying the fees that traps merchants (and therefore their customers) in the current inefficient interchange fee system.

There are major impediments to effective competition between MasterCard and Visa (and other brands) with respect to interchange fees under existing rules. The first is the existence of restrictions on bypass competition (as illustrated could occur between Banks C and D in Figure 2). Visa prevailed in *NaBanco* in part because the Court found use of Visa's network to be voluntary. William Baxter testified and wrote that Visa's freedom to impose an interchange fee should be conditional on the ability of banks to opt out of the Visa interchange fee system.⁵¹ Bypass competition was for a long time not an economically meaningful alternative, and could not prevent MasterCard and Visa from acquiring and exercising monopoly power. When First Data Corporation assembled a

50. This assumes, of course, that merchants could not choose a negative interchange fee such as Australian merchants enjoy for PIN-debit transactions. The point is that it is generally desirable for the party paying a fee to also be the party choosing the payment network imposing the fee. The current system, by contrast, permits the exploitation of a "principal-agent" problem in which consumers receive kickbacks to choose expensive networks for which merchants (and all consumers) are then forced to pay.

51. *NaBanco* did not clearly distinguish between opting out of the Visa processing system and the ability to negotiate a separate fee. *See*, 596 F. Supp. 1231, at 1254 ("...[The interchange fee] is properly analyzed under the rule of reason because it is not mandatory. Acting on behalf of its principals, NaBanco is and always has been free to negotiate different terms of interchange, (not using [the Visa] Base II [settlement network]) and some VISA issuers have been willing to make alternate arrangements."); 779 F.2d 592, 600 (" In Baxter's opinion, such a fee is legally valid so long as all members of a four-party payment system have the option to bypass the required fee and negotiate their own fee... As mentioned earlier, the [Visa] Base II system is not mandatory and may be bypassed if the VISA members so choose.); Baxter, *Bank Interchange*, at 586.

network that potentially could bypass Visa and MasterCard for a significant number of transactions, however, Visa responded by banning such arrangements.⁵² Even to the extent there might be an incentive for an issuer to accept a lower interchange fee in connection with superior processing service, that incentive will be eliminated by the Visa restriction. Other customized fee arrangements, such as those that might occur with “co-branded” MasterCard or Visa cards sponsored by a particular merchant, will affect fees only on a very small percentage of sales, unless consumers revert to carrying and using many different cards at each of many different merchants.

The decentralized setting of interchange fees might be more effective if the current systems’ vertical restrictions and Visa’s prohibition of bypass and on-us competition were eliminated.⁵³ Bypass alone may be insufficient to generate a fully efficient, competitive market if merchants and acquirers cannot compel an issuing bank to redeem its cardholders’ transactions over a competing network. But inter-network processing competition might be more effective if existing branded networks competed to process each other’s cardholder transactions. Most issuers are already participants in both the Visa and MasterCard networks, and as a result of *U.S. v. Visa*, some issuing banks could have three or four data pipelines connecting them to merchants. An important feature of debit cards that gave merchants potential bargaining power over interchange fees in *Wal-Mart* was the multi-network functionality of many debit cards issued by banks. A Visa (offline debit) Check Card is, usually, also a PIN-debit card. A merchant who refuses Visa offline debit transactions can still complete a transaction

52. The Nilson Report, Issue 829, March 2005, pp. 1, 5.

53. *See, e.g.*, Australian Competition and Consumer Commission, “ACCC proposes to deny EFTPOS price-fix,” press release, August 9, 2003.

using the same card accessing the same bank account by using its PIN-debit functionality. The situation is different with credit cards. MasterCard and Visa do not permit the issuance of multi-branded credit cards capable of accessing both the MasterCard and Visa (or other) networks. This is a form of customer allocation and market division that limits direct inter-network price competition. Competition could be enhanced by enabling issuers to issue multi-network credit cards and enhancing merchants' ability to choose or steer transactions to a particular network, at least if merchants are paying an interchange fee.⁵⁴

Issuers and cardholders currently choose the payment method.⁵⁵ Encouraged by perks and rebates, consumers often opt to use credit cards. However, consumers collectively could be better off delegating network choice to merchants.⁵⁶ The current system enables banks to exploit opportunistically the overwhelming free rider problem facing any consumer who, if aware of these facts, might contemplate reducing merchant costs by choosing a less expensive payment method, but would as a result gain no measurable private benefit.

54. Even if multi-network cards or bypass networks were more widely available, however, current network rules and practices might permit consumers to choose the network even when merchants pay the resulting fee. An exception has sometimes existed in online debit networks. In some cases more than one PIN debit network is accessible by the merchant and the issuing bank, which permits at least some merchants to choose the lowest cost network (although networks may attempt to use "routing rules" to restrict merchant choice).

55. This occurs both when issuers solicit cardholders and even afterward. Citibank, for example, unilaterally switched many of its customers from Visa branded cards to MasterCard branded cards.

56. Standardization of transaction processing from the perspective of consumers might be appropriate in such a setting, to the extent there are any significant differences currently.

III. Evaluating Economic Defenses of Interchange Fees

William Baxter published the first economic defense of interchange fees during the course of the *NaBanco* litigation of the early 1980s.⁵⁷ After a decade of inactivity, the economic literature concerning interchange fees has grown since the mid-1990s, particularly theoretical defenses offered in response to renewed criticism of the fees. These defenses have frequently centered on the claimed need by networks to “balance” the two sides of payment networks – issuers serving consumers on the one hand and acquirers serving merchants on the other.⁵⁸ This balancing is described in different and sometimes vague ways, but generally involves an appeal to the existence of either indirect network externalities or a “usage externality” in retail payment systems. It is claimed that only by imposing an interchange fee can the payment system overcome the adverse consequences of externalities.⁵⁹ In addition to externalities, a variety of other defenses are also offered in support of interchange fees and the Associations’ pricing practices. In this part we provide an overview and response to the main types of economic defenses offered for interchange fees. We explain our view that the collective imposition of interchange fees is unlikely to be used to achieve efficiencies, notwithstanding the two-sided nature of payment markets, claimed network externalities, or the other features of the market.

57. William F. Baxter, *Bank Interchange of Transactional Paper: Legal and Economic Perspectives*, 26 J. Law Econ. 541 (1983) (“*Bank Interchange*”).

58. *See, e.g.*, Cruickshank Report, p. 261.

59. *See, e.g.*, Jean-Charles Rochet And Jean Tirole, *An Economic Analysis of the Determination of Interchange Fees in Payment Card Systems*, 2 Rev. Network Econ. 69, at 73 (June 2003) (“Interchange fees are the only mechanism through which associations can perform the balancing act.”).

A. “Balancing” Costs and Revenue

The associations appeal to the idea, originally advanced by Baxter, that the costs and benefits of credit card usage are not evenly distributed and that an interchange fee is necessary to “balance” the system.⁶⁰ The lack of balance in this context referred to a disequilibrium in which Baxter claimed issuers would incur more costs in connection with credit card payments than acquirers, but would not receive enough revenue from their own cardholders to cover those costs, while acquirers would obtain a surplus of revenue.⁶¹ Baxter concluded, in other words, that if the interchange was set too low, issuers would continue to incur losses on their card operations and acquirers would continue to earn excess profits, and if the fee was set too high, issuers would earn excess profits and acquirers would suffer losses. Baxter’s analysis, however, was driven in part by the state of federal and state bank and credit regulation and the chaotic macroeconomic conditions prevailing in the late 1970s and early 1980s. His conclusions regarding an imbalance between revenue and costs are, at best, only partly correct in today’s market, and in a way that does not support the efficiency of interchange fees.

If suppliers in a competitive market are consistently suffering losses because their price is below marginal cost, then the price will tend to rise. If marginal costs fall, prices

60. See, e.g., MasterCard International, Incorporated, *Submission to the Reserve Bank of Australia* (June 2001), at 38-39 (“[T]he interchange fee is... an efficient arrangement to balance the costs and benefits of credit card transactions in the open system between issuers and acquirers, and thereby the cardholders and merchants.... In an open credit card scheme it is important to understand that issuing and acquiring services are quite different both in terms of their nature and cost... These differing functions result in an imbalance between the issuers’ and acquirers’ costs, which must be corrected through an allocation of revenues between them. This is typically achieved through interchange fees.”).

61. Baxter, *Bank Interchange*, at 575-76 (“I will assume, as recent cost patterns suggest, that income from card holders is too small for the average card-issuing bank to cover its costs, whereas income from merchants is on average, more than sufficient for merchant banks to cover their costs.”)

tend to fall. This works extremely well on the acquiring side of the U.S. credit card market.⁶² Competition among acquirers, therefore, will prevent any “imbalance” between costs and revenues from persisting. On the issuing side, however, there may be a persistent imbalance, but in the direction opposite that described by Baxter.

Absent interchange fee revenue, issuers of checking services cover their costs through a schedule of fees charged to their customers. The same would be true for cards.⁶³ Interchange fees, however, generate a stream of revenue to banks that exceed their direct costs of processing the transactions, resulting in the marketing costs and rebates described in Part II. Because the issuing side of the market does not seamlessly decrease already *negative* prices on a one-for-one basis with increases in interchange fees, the fees themselves likely *cause* an imbalance rather than cure one, with revenue exceeding costs (i.e., persistent profit).⁶⁴

B. Network Externalities

Network externalities and a claimed “chicken and egg problem” are frequently cited in defense of interchange fees.⁶⁵ Some say an “indirect network externality” exists

62. In *NaBanco*, Visa acknowledged the one-for-one relationship between changes in interchange fees and changes in merchant discount rates. See, n.11, *supra*.

63. Even defenders of interchange fees concede that issuers will not suffer persistent losses without the fees, but instead will still be able to cover their costs (although they claim such a result would be undesirable). See, e.g., 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.”) Evans and Schmalensee, *Paying With Plastic*, at 280 (“Would the Visa system have collapsed if NaBanco had won? If the court had mandated a zero interchange fee... Visa issuers could have recouped their costs in several ways...”)

64. See note 16, *supra*.

65. See, e.g., David S. Evans and Richard Schmalensee, *Economic Aspects of Payment Card Systems and Antitrust Policy Toward Joint Ventures*, 63 *Antitrust L.J.* 861 (1995), at 887; David S. Evans and Richard Schmalensee, *Paying With Plastic* (MIT Press 1999), at 137f;

in a payment system when merchants or consumers consider whether to participate. In a typical formulation, Howard Chang and David Evans write “the value of the product to cardholders is higher if there are more merchants that take the card, and the value of the product to merchants is higher if more cardholders use the card.”⁶⁶

A “chicken-and-egg problem” refers to the claimed difficulty of launching a network exhibiting network externalities. Many products and services exhibiting network effects, of course, are successfully introduced with neither subsidy nor legally-sanctioned cartel. By its nature, a network externality is likely to become less important (and a less persuasive defense) as a network matures.⁶⁷ Visa and MasterCard now operate the largest card payment systems and enjoy almost ubiquitous penetration among major merchants, so they probably have little continued need to overcome “chicken and egg” entry barriers. Even if interchange fees could be shown to have helped a new network gain members to achieve a viable scale (and if there was no effective way to do so that avoided price fixing), that would not establish that society benefits if the fees

Howard H. Chang and David S. Evans, *The Competitive Effects of the Collective Setting of Interchange Fees by Payment Card Systems*, 45 *Antitrust Bul.* 641, at 649; Joshua S. Gans and Stephen P. King, *The Role of Interchange Fees in Credit Card Associations: Competitive Analysis and Regulatory Issues*, 29 *Australian Business Law Review* 94 (2001); Jean-Charles Rochet, *The Theory of Interchange Fees: A Synthesis of Recent Contributions*, 2 *Rev. Network Econ.* 97 (2003); Jean-Charles Rochet And Jean Tirole, *An Economic Analysis of the Determination of Interchange Fees in Payment Card Systems*, 2 *Rev. Network Econ.* 69, at 73 (June 2003); Richard Schmalensee, *Payment Systems and Interchange Fees*, 50 *J. Industrial Econ.* 103 (2002).

66. Chang and Evans, *Competitive Effects*, at 648.

67. See, e.g., Jean-Charles Rochet, *The Theory of Interchange Fees: A Synthesis of Recent Contributions*, 2 *Rev. Network Econ.* 97 (2003). (“Payment card networks are also characterized by a more classical network externality... This externality becomes less and less important as the network matures, when virtually all potential users have joined.”) See also Katz (2001) at 14, and Rochet (2003) at 98, discussing how this network externality becomes less important as networks mature. Katz, like Liebowitz & Margolis, questions whether this type of effect is an “externality” at all. [[cite]]

persist indefinitely and even increase well after the networks have achieved widespread acceptance, an efficient scale of operations, and substantial market power.

MasterCard warned in Australia that a reduction in interchange fees may lead to a “death spiral” collapse of the network.⁶⁸ This is an extreme version of the network externality defense in which a decrease in interchange fees leads to higher consumer fees or reduced perks, and these changes induce such a large reduction in consumer willingness to use cards that fewer merchants accept the cards notwithstanding the lower direct cost of doing so.⁶⁹ A reduction in interchange fees might well reduce the use of credit cards by some consumers in some transactions, but it seems unlikely that a reduction in merchant fees would be associated with a net *decrease* in the number of merchants accepting the cards. This is particularly true if, net of interchange fees, each card transaction costs merchants less, on average, than alternative methods of payment – as suggested by the claimed “usage externality” defense discussed below.

It seems unlikely that merchants collectively benefit today from increased credit card usage by their customers at the margin, given the existing level of merchant fees or even with significantly lower fees. Although it can be assumed that an individual merchant choosing to accept card transactions tends to benefit from that decision, such a decision is made in light of the card acceptance decisions of competing merchants.⁷⁰

68. See, e.g., MasterCard International, *Submission to the Reserve Bank of Australia*, July 20, 2001, p. 11.

69. The Reserve Bank of Australia proceeded to reduce interchange fees significantly notwithstanding this and other arguments, and so far there has been no “death spiral.”

70. With voluntary exchange, even customers of monopolists or cartels (e.g., OPEC) are net private beneficiaries of the monopolized product. The fact that merchants are more likely to accept cards when many consumers have a preference to use them, however, does not mean that merchants are net beneficiaries of that pattern of usage – particularly when consumer preferences are distorted by the interchange fee. Michael Katz, *Commissioned Report*,

Preventing the loss of sales to rival merchants generates a private benefit, but not a net social benefit, because one merchant’s gain is another’s loss.

C. The “Usage” Externality

Several economic defenses of interchange fees have focused on an alleged “usage” externality. The usage externality refers to the fact that buyers choose the form of payment, but sellers bear resulting direct costs that can vary significantly depending on the form of payment. Buyers thus are claimed to impose an externality on sellers through their choice, which can be remedied (internalized) through use of the interchange fee.⁷¹

1. The Basic Theory

The usage externality results from the same market imperfection – price coherence – we identified as the source of the competitive harm caused by interchange fees. Defenders of the fees argue that without the interchange fee, cards would cost merchants less than other methods like cash and would not be used enough given a single price for all payment methods; the fee, they claim, remedies this imbalance.⁷² We contend that credit card interchange fees instead represent the collective *exploitation* of price coherence and are likely set significantly above any theoretically optimal level.

Reform Of Credit Card Associations In Australia, Vol. II, August 2001, p.19 (“the merchants’ collective benefits may be zero because one merchant’s increased sales can come at the expense of other merchants’ sales.”) Credit cards are only likely to increase *aggregate* retail sales significantly to the extent they reduce aggregate transaction costs and save resources in the economy as a whole, not to the extent they prevent a merchant from losing sales to other merchants. *Commissioned Report*, at 11.

71. *See, e.g.*, Rochet (2003) at 98; Schmalensee (2002) at 105; and Baxter (1983) at 553.

72. As previously discussed, private merchant card benefits resulting from winning customers back from other card-accepting merchants are not relevant to efficiency claims for interchange fees. For simplicity, the discussion here assumes any other social benefits can be recast as reductions in costs.

According to the usage externality hypothesis, absent the fee merchants have an incentive to steer consumers towards using credit, which results in (assumed) savings relative to a cash transaction. Because the customer and the merchant have a direct “commercial relationship” with one another, to borrow Michael Katz’s phrase, in a perfectly competitive retail market with no other transaction costs the merchant might set a retail price higher for cash than for credit cards.⁷³ This would cause buyers to perfectly internalize the apparent externality so that the price that buyers face equals the value of the goods or services sold plus the cost of the payment method to the merchant.⁷⁴

This two-price equilibrium absent transaction costs has been described in many published discussions of interchange fees since William Baxter first mentioned the possibility in 1983.⁷⁵ It is generally recognized, however, that price coherence has historically made a two- or multi-price outcome unlikely when fees were modest, although the advent of modern computerized point of sale payment terminals could reduce the cost of differential pricing.⁷⁶ Price coherence can lead to inefficiency in

73. Julian Wright, *Optimal card payment systems*, 47 *European Economic Review* 587 (2003), at 607 (“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.”)

74. Joshua S. Gans and Stephen P. King, *The Role of Interchange Fees in Credit Card Associations: Competitive Analysis and Regulatory Issues*, 29 *Australian Business Law Review* 94 (2001), at 100-01 (“[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.”) The same result can be achieved through a separating equilibrium with identical merchants specializing in cash or credit, assuming (unrealistically) there were no economies of scope associated with merchants accepting more than one payment method.

75. William F. Baxter, *Bank Interchange*, at 553n. See also, Carlton & Frankel at 657-659; Frankel at 342; Gans & King (2001) at 100; Rochet & Tirole (2003) at 76; and Katz (2001) at 21.

76. The fact that surcharges usually are not used by merchants when they are an available option does not imply either that interchange fees are preferable or that restricting merchant pricing freedom is innocuous. As fees increase or the cost of distinguishing between payment

payment choice because buyers do not face the true marginal costs associated with their payment decisions; in this no-interchange fee scenario the marginal cost that consumers face when using cash is assumed to be too low and the marginal cost for credit is too high. As a result, buyers will use credit less than is socially desirable (again, assuming credit cards saved merchants significant transaction costs). Sellers in this scenario would benefit if they could overcome the inefficiency problem. If permitted and it is not too costly, they might want to incur the inconvenience of offering a discount for credit card purchases. If, for whatever reason, they cannot engage in direct price discrimination (“side payments,” as termed by Baxter) at the point of sale, they might make non-price steering efforts: encouraging card use, offering special credit card check out lanes, etc. But another possibility is that they rely on the interchange fee system to accomplish indirectly a two-price outcome. A merchant would set its price based on the cash cost and pay *its own bank* the efficient credit card discount which is forwarded – essentially on the merchant’s behalf – to the cardholder’s bank. If the issuing market is perfectly competitive and rebating is costless, issuers will pass the amount of the fee along to the cardholder in the form of rebates (assuming there were no existing transaction fees). At

methods decreases, more merchants may find it advantageous to set different prices based on payment method. In Sweden, where surcharging is permitted and the average credit card discount fee is about 2%, a survey found roughly 5% of merchants surcharged credit cards. (IMA Market Development AB, *Study Regarding the Effects of the Abolition of the Non-Discrimination Rule in Sweden*, for European Commission Competition Directorate General, Final Report, February 29, 2000, pp.13,18.) In Australia, where merchant fees for credit cards are relatively low but there has been much publicity about the new ability of merchants to surcharge, a MasterCard survey reportedly found that 8% of retailers surcharge credit card purchases. “Credit card surcharging on the rise,” <http://au.pfinance.yahoo.com/041013/1/bk9.html>, visited April 25, 2005. In the Netherlands, where most merchants pay discount rates between 3.8% and 4.5%, roughly one in five set different prices for credit cards – 10% surcharge and 9% offer discounts for alternative payment methods. (ITM Research for Competition DG, *The abolition of the No-discrimination Rule*, for the European Commission, March 2000, pp. 5, 7-8.)

the claimed efficient interchange fee, the merchant is then indifferent between the customer's payment choice despite the existence of price coherence, and only consumers who save more costs by using cash than the amount of the interchange fee (and, therefore, the additional costs imposed on merchants) will choose to use cash.

2. When Fees Are Set Too High

We believe there are significant problems with the theoretical usage externality defense outlined above and its relevance to the way interchange fees are actually used by the Associations. If the interchange fee is set at a level above the claimed optimum and there is no surcharging, the result is inefficient; consumers are provided too great an incentive to use credit cards as perks and rebates increase (although not in a frictionless way) while retail prices remain the same as for other payment methods. Even if issuing is perfectly competitive and rebating interchange revenue to cardholders is costless, there is too much use of credit cards and retail prices rise to all consumers as described in Part II. If, as seems likely, rebating by issuers and card switching by consumers is imperfect and costly, then resources will be consumed through the pattern of solicitation and promotion that we observe in a way that does not necessarily result in a net benefit to cardholders. Far from achieving the outcome merchants would choose if they could administer a multi-price system at retail, in reality merchants complain that credit cards are far more costly than other available payment methods, and the Associations maintain no-surcharge rules to help ensure that merchants do not attempt to recoup the additional costs through multi-tier pricing to consumers.

3. Will Bank Networks Set Fees at the “Optimal” Level?

The theoretical usage externality defense merely suggests that it might be possible for an omniscient planner, or a merchant, to use an interchange fee to fine tune retail transaction costs to make payment markets more efficient than they would be by simply leaving merchants free to act unilaterally. But it is unlikely that a centralized interchange fee set collectively by banks will improve merchant payment efficiency in practice. If an individual merchant cannot easily fine-tune its own pricing practices to reflect small differences in its cost of accepting various forms of payment, and cannot otherwise encourage efficient payment choices, then it is highly unlikely that a vast bank association will choose an interchange fee that happens to achieve a more efficient outcome for any particular merchant or for all merchants collectively. Another reason to doubt the efficiency of the fees in practice is the far from perfect pass-through of the fees to cardholders, as banks keep or dissipate much of the fee revenue in the pursuit of profits enhanced by the fees.

The Associations seek to maintain the current situation in the U.S. in which they have unlimited discretion concerning the level and structure of the fees. It might help their argument if competition between MasterCard and Visa, as well as American Express and Discover, somehow constrained or prevented interchange fees from exceeding some “optimal” level under a usage externality theory. There have been some theoretical attempts to show that an Association might have a unilateral incentive to choose the optimal interchange fee, but the literature is inconsistent and unconvincing on

this point.⁷⁷ In fact, some recent theoretical defenses contend that, if allowed to do so, associations will tend to set interchange fees above the theoretically efficient level and, indeed, at the level maximizing interchange fee revenue – i.e., the highest level where merchants will still continue accepting the cards.⁷⁸

4. Competition Between the Associations Does Not Constrain Interchange Fees

Even supporters of interchange fees have concluded that competition between alternative card systems is unlikely to constrain fees effectively unless cardholders can access both networks and merchants can switch between them to take advantage of price differences.⁷⁹ This is essentially the same set of conditions that we described in Part II as a possible remedy: access to multiple networks (on each card, in our discussion), with

77. See, e.g., Richard Schmalensee, *Payment Systems and Interchange Fees*, Journal of Industrial Economics, June 2002, Vol. L, No. 2., and Jean-Charles Rochet, “The Theory of Interchange Fees: A Synthesis of Recent Contributions,” Review of Network Economics, Vol. 2, Issue 2, June 2003.

78. See, e.g., Jean-Charles Rochet, *The Theory of Interchange Fees: A Synthesis of Recent Contributions*, Review of Network Economics, Vol. 2, Issue 2, June 2003; and Joshua Gans & Stephen King, *Approaches to Regulating Interchange Fees in Payment Systems*, Review of Network Economics, Vol. 2, Issue 2, June 2003.

79. See, e.g., Graeme Guthrie and Julian Wright, *Competing Payment Associations*, University of Auckland Working Paper No. 245, (2003), at 3 (“[C]ompeting card Associations act exactly as though they were a single card scheme...” [T]hey will also seek to attract a greater base of cardholders in the first place, by charging less to card users and more to merchants (in the case of competing card associations, by setting higher interchange fees)... [W]hen merchants are homogenous there will be no scope to further raise merchant fees above the levels set by a single card scheme, since this would lead all merchants to reject cards.”) When all consumers hold both brands of cards (and, implicitly, that they are able and willing to use them interchangeably), Guthrie and Wright assume merchants will drop the more expensive of competing brands and consumers will all switch to the brand still accepted. *Id.*, p. 15. Guthrie and Wright, however, see such competition leading to interchange fees that are *too* low, leading to consumer transaction fees that are too high. There is no evidence, however, that in the real world par collection (e.g., for checks or PIN debit cards) leads to consumer fees that are “too high,” particularly if there is no strategic use of fees to steer consumers to higher interchange signature debit usage. Even in networks with no interchange fees consumers often choose account plans that incur no incremental fees for most or all of their retail payment transactions.

merchants choosing the network. Given the existence of other competitive restrictions, however, “competition” between networks over interchange fees in the real world is dysfunctional; it is focused on generating higher fees to issuing banks, not lower fees and prices to merchants and consumers.⁸⁰

To see why competition is ineffective, consider what would happen if Association A set its interchange fee exactly at a theoretically efficient level to remedy a usage externality, while Association B raises its fee to a slightly higher level. If each Association’s cards initially were presented equally often, then the merchant would set its retail price above the efficient, cash cost price but below the level that would prevail if both Associations had raised their fees.⁸¹ All consumers at the point of sale would still see the same retail price, but banks choosing to issue Association B cards would get a higher interchange fee payment. Banks will therefore begin to commit more resources to issuing Brand B cards than Brand A cards, and the cards with the best consumer rebates or perks will tend to be those issued under Brand B. The Association with the higher fee grows at the expense of the Association fixing the fee at the efficient level, and

80. In recent years Visa and MasterCard have routinely cited “competition” between them (and now American Express) as a reason they raise interchange fees. This is consistent with our analysis that existing competition is for issuer loyalty, and drives fees up towards the monopoly level. *See, e.g.*, “Visa Raising Interchange Fees On Credit, Matching MC, American Express,” *American Banker*, February 24, 2004 (“Visa U.S.A. is scheduled to announce today that it will raise its interchange rates April 3. The move, Visa said, is designed both to keep pace with MasterCard International and American Express Co. and to make itself the most attractive partner for the soon-to-merge Bank One Corp. and J.P. Morgan Chase & Co.... William Sheedy, Visa's executive vice president of bank card research and interchange strategy, called the revision of the credit interchange schedule a purely competitive move. ‘When we made fee changes driven by the economics of the business, we have been clear about that,’ he said. But ‘here we have a MasterCard fee increase as well as American Express’ appeal to banks based on higher merchant fees.”).

81. There is no reason to expect merchants in this scenario to drop Brand B cards in response to a modestly higher fee, unless customers could seamlessly access both networks either on a single card or if close to all customers carried both brands of cards and were indifferent between them at the point of sale.

“competition” for the loyalty of issuing banks perversely induces the Associations to bid the fee higher. Ultimately, there is little to prevent the two Associations each from increasing the interchange fee to the same level that a monopoly association would choose if consumers are loyal to particular cards or cannot costlessly switch brands according to the merchant’s preference.⁸²

There is only a very weak constraint on this process. Merchants cannot discriminate in pricing between different card brands due to Association no-surcharge and non-discrimination rules (and transaction costs), but an Association may have to increase its fee only in modest increments so it does not get too far out in front of the other Association and risk losing merchants that continue to accept the other brand. As long as a merchant cannot choose which of the Associations’ networks to use to clear and settle a transaction initiated by the customer of an issuing bank, the Associations can increase interchange fees until they reach the point that further increases in the level of the fees will cause enough merchants to drop the cards or consumers to switch to cash-only (or cash and other low cost payment systems) merchants to render the increase unprofitable. That, however, will be at the monopoly level. If all merchants were alike, this fee would coincide with the maximum amount an individual merchant would pay to continue accepting cards, given other merchants’ acceptance of cards.⁸³

82. If issuers were perfectly competitive and rebates were costless to administer, so that issuers could not obtain economic profits regardless of the level of the interchange fee, this network “competition” would still lead the Associations to raise the fee to the monopoly level, but cardholders would obtain the monopoly revenue (on net, from cash customers) instead of issuers. If, as fee defenders often assume, issuers are not perfectly competitive or – as marketplace experience shows – increases in fee revenue are not costlessly passed through to cardholders, then it is less likely that cardholders will be net beneficiaries of interchange fees and more likely that issuers will profit from the fees.

83. Jean-Charles Rochet, *The Theory of Interchange Fees: A Synthesis of Recent Contributions*, 2

5. Merchant Behavior and Costs Contradict Theoretical Interchange Fee Defenses

If interchange fees have been used efficiently by the Associations (and other networks) to solve a claimed, economically significant, merchant usage externality then merchants should generally be content with the fees and indifferent among consumer payment choices. One would also expect that merchants would play a significant role in the setting of any interchange fees they pay (or receive). In fact, the way interchange fees are imposed in the retail economy bears little resemblance to the theoretical defenses or the logical implications of those defenses. Merchants are far from happy about the existence and level of interchange fees they pay.⁸⁴ Merchants have little say in the setting of interchange fees; even acquirer banks get systematically fewer votes in the Associations than issuing banks.⁸⁵ The Associations have argued that individual merchants may oppose interchange fees because they are attempting to free ride upon other merchants. That is, an individual merchant could obtain the network benefits from interchange fees imposed on other merchants if it alone did not have to pay the fees.⁸⁶ However, merchants' collective activity through their trade associations shows otherwise.

Review of Network Economics 97, at 104, 105 (2003) (“The privately optimal [interchange fee] equals the maximum value of the interchange fee that is compatible with sellers’ accepting cards....” “if sellers’ willingness to pay [to accept cards] is high... the privately optimal [interchange fee] exceeds the socially optimal level...: there is overprovision of card payment services.”).

84. See, e.g., “Interchange Fee Increase a Chance to Review Pricing,” *American Banker*, March 3, 1998 (“Many [acquirers] view the April interchange increase as a negative event that is highly unpopular within the merchant community.”)

85. See, e.g., Richard Schmalensee, *Payment Systems And Interchange Fees*, 50 *Journal Of Industrial Economics* 103 (2002), at 116 (“In the U.S., banks' voting power in the Visa and MasterCard associations is more sensitive to issuing volume than to acquiring volume...”).

86. The Associations, however, have reportedly negotiated more favorable interchange fees for Wal-Mart and they offer discounts for large merchants. It is inconsistent to claim merchants can harm the public by paying lower interchange fees than other merchants while offering significantly lower fees to particular merchants.

Merchants, both individually and collectively, have lobbied through their trade associations (and class action lawsuits) for reduction or elimination of interchange fees.⁸⁷

According to the usage externality theory, efficient interchange fees should be set to equalize merchant costs across payment methods and higher cost payment methods should have lower or even negative interchange fees.⁸⁸ Although Visa's interchange fee was accepted in *NaBanco* in part because it purportedly was based on an analysis of "costs," there is no indication that the Associations have set interchange fees in order to make merchants indifferent between various consumer payment choices.⁸⁹ Rather, several studies have concluded that credit cards currently cost merchants substantially

87. See, e.g., "American Express Litigation Spells Risk for Card Industry," Morgan Stanley, November 19, 2004; "Merchants Expand Credit-Card Fight: Lawsuits That Claim Visa, MasterCard Collude on Fees Could Hit Issuers' Profits," *Wall Street Journal* (June 23, 2005), p. A3.

88. Fee defenders sometimes describe the interchange fee as more generally balancing net "costs" and "benefits" obtained by merchants and consumers. The principal benefit to merchants from credit cards (aside from reduced costs) mentioned by these advocates is the additional number of customers or larger transaction amounts associated with credit card acceptance. These, however, are private (not social) benefits from the decision to accept cards, and do not result from inducing a customer to switch to using cards at the point of sale when they are both already offered and the customer otherwise would have used cash. Even if consumers prefer to use credit cards rather than cash at retail when making larger value purchases, this does not imply that inducing a given customer to switch to a credit card at the point of sale will cause the customer to spend more in the aggregate, year after year.

89. See, e.g., Göran Bergendahl, David Humphrey, Ted Lindblom and Magnus Willeson, *What Does It Cost To Make A Payment?*, 2 *Review Of Network Economics* 159 (2003), at 163 ("One consistent result is that a credit card is considerably more expensive for merchants to accept than any of the others. This is due to the relatively high merchant fee that is triggered with credit card use."). As a result of its recent settlement with the European Commission, Visa now publishes the level of fees and cost allocations for cross-border transactions within Europe, but the level of fees prevailing in individual European countries apparently still is not generally disclosed. (See, www.visaeurope.com/acceptingvisa/interchange.html, visited April 4, 2005.) The United Kingdom's Cruickshank Report noted that the "process of determining these default [interchange fee] rates is extremely opaque to outsiders." Don Cruickshank, "Competition in UK Banking: A Report to the Chancellor of the Exchequer," March 2000, D3.115. ("Cruickshank Report")

more than cash, checks, and PIN debit card transactions on either a per-transaction or a per-dollar basis.⁹⁰

The Reserve Bank of Australia, which reviewed data from the Australian Retailers Association to evaluate the fixed and variable costs associated with each payment method, concluded that the cost differences are even greater for large value purchases. For example, the purchase of a \$1,000 item would cost a merchant \$19.00 if paid with a credit card, but between \$0.17 and \$1.00 if paid by debit card (depending on the size of the retailer), and \$0.12 if paid by cash.⁹¹

These results are inconsistent with the theoretical justification for interchange fees. Interchange fees account for most of the additional cost of accepting credit and offline debit cards over alternative payments methods. In Australia, credit costs were around 1.10% higher than cash costs prior to the recent reform, with an average interchange fee of .95%.⁹² If the interchange fee were being used to cause consumers to internalize the payment costs that they impose on merchants, then the interchange fee should in fact be negative (although, at only fifteen basis points, differences in costs

90. See, PricewaterhouseCoopers, "It All Adds Up: An Activity-Based Cost Study of Retail Payments," Food Marketing Institute (2000); Reserve Bank of Australia, Reform of Credit Card Schemes in Australia I, A Consultation Document, December 2001, p. 23, for a summary of previous studies. The Food Marketing Institute study found "The typical credit or off-line debit card transaction costs grocers 72 cents... This figure is at least twice as high as payments by check (36 cents), online debit cards (34 cents) and food stamp coupons (35 cents). Of that 72 cents, the study found that about 80 percent covers settlement costs, largely the transaction fees that financial institutions charge retailers." See, "Consumers Double Use of Electronic Payments to Buy Groceries; Report Shows Cost-Control Opportunities for Retailers," press release, February 9, 2001 (<http://www.fmi.org/media/mediatext.cfm?id=289>, visited April 26, 2005).

91. Reserve Bank of Australia, *Reform of Credit Card Schemes in Australia I, A Consultation Document*, December 2001, p.22.

92. Reserve Bank of Australia, *Reform of Credit Card Associations in Australia IV*, August 2002, p.6.

between merchants may be as significant as differences between payment methods). Consistent with our interpretation of interchange fees, the fee itself appears to be the primary source of existing payment externalities, and elimination of the interchange fee would significantly reduce the average cost differential faced by merchants.

D. Other Defenses

Other defenses have been offered for interchange fees, including more elaborate variations on the network and usage externality defenses, a challenge to Frankel’s historical analysis of earlier payment systems, and more.⁹³ In the remainder of this section we review some of those arguments and explain why we do not find them persuasive.

1. Are Interchange Fees Needed To Offset The Effects of Issuer Market Power?

If merchants could costlessly charge different prices to customers who present different payment methods or otherwise influence customers’ payment choice, then any usage externality would be internalized and there would be no role for the interchange fee.⁹⁴ Several theoretical defenses of interchange fees claim the level of the fee is

93. See, e.g., Howard Chang and David Evans, *The Competitive Effects of the Collective Setting of Interchange Fees by Payment Card Systems*, 45 Antitrust Bulletin 641 (Fall 2000).

94. Gans and King argue that perfect competition by merchants would have the same effect as perfect surcharging of credit cards: the level of the interchange fee would be irrelevant (the neutrality result). They reach this conclusion, however, through the unlikely assumption that “perfect competition” encompasses a complete separation of the retailing industry into credit-only and cash-only merchants. Joshua S. Gans and Stephen P. King, *The Neutrality of Interchange Fees in Payment Systems*, University of Melbourne working paper (2001), at 39. (“Any attempt to systematically distort interchange fees will simply split the market into competing cash and credit markets and will not raise banks’ profits.”) Deviations from neutrality are thus due to “imperfect competition” among merchants in this formulation. There is no dispute that merchants cannot perfectly discriminate among payment methods (in

indeterminate and irrelevant if there is perfect competition among issuers and acquirers. (Of course, if the level of the interchange fee is irrelevant, there would also be no apparent justification to allow price fixing.) If price coherence prevails, however, interchange fees will tend towards the monopoly level even if there is competition among issuers; if there is perfect issuer competition, it simply means issuers will rebate more of the fees to cardholders and keep less as profit.

Some theoretical models rely on the assumed existence of issuer market power to explain how (non-neutral) interchange fees can enhance efficiency.⁹⁵ The intuition behind this is that if issuers have market power they will restrict output and increase transaction fees to cardholders. By increasing the marginal profit of each card transaction, the interchange fee induces card issuers in these models to *expand* output. If set just right, the interchange fee can offset the output-reducing effect of issuer market power.

This claimed efficiency effect has nothing directly to do with claims about externalities or the existence of a “two-sided” market. The two-sidedness of the market

part due to system rules) or replicate their operations for each payment method. The point is that banks are collectively exploiting the existence of price coherence, the vertical restrictions they impose, and economies of scope across payment types.

95. Julian Wright, *Optimal card payment systems*, 47 *European Economic Review* 587 (2003), at 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 and Jean Tirole, *Cooperation among Competitors: Some Economics of Payment Card Associations*, 33 *RAND J. Econ.* 549 (2002), at 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...”); Jean-Charles Rochet, *The Theory of Interchange Fees: A Synthesis of Recent Contributions*, 2 *Rev. Network Econ.* (2003), at 107 (“When issuers’ market power is large... banning the [no-surcharge rule] is likely to be welfare decreasing.”).

simply provides a mechanism for issuers to be subsidized without state intervention, with privately collected “tax” revenue supplied to the banks by cash, PIN debit, and other customers who impose lower costs on merchants. Economic efficiency might theoretically be improved by paying subsidies to a monopolist (or firms with market power), but this is a rather unappealing defense for a collective, industry-wide price fixing arrangement.⁹⁶

While their theorist allies assume that issuers have market power, the Associations often argue precisely the opposite – that issuer competition is intense enough to fully protect cardholders from any exercise of market power by the Associations and fully rebate any supracompetitive profits issuers might attempt to collect through an interchange fee system. According to this argument, an industry association that does not directly set the prices charged by its many members to their customers cannot cause anticompetitive harm.⁹⁷ This is plainly incorrect. There any number of ways joint ventures, trade associations, and networks with numerous members can significantly restrict competition without directly controlling downstream prices;

96. If individual issuers possess market power it is also hard to credit claims that they lack collective market power. If issuing is insufficiently competitive, the Associations could, e.g., liberalize membership requirements rather than tax transactions made with alternative payment methods.

97. The Tenth Circuit accepted Visa’s argument in the *MountainWest* case that its many members meant that it lacked even *collective* market power, let alone that its individual members possessed significant market power. *SCFC ILC, Inc. v. Visa USA, Inc.*, 36 F3d 958 (10th Cir. 1994). In fact, the concentration of card issuing has increased markedly in recent years, but even if the Associations’ issuers have some market power, it would make more sense to exercise vigilance over further market concentration through the many mergers and portfolio acquisitions that have taken place, rather than resort to the drastic “solution” of permitting the Associations to stimulate card issuing through taxation of non-card customers.

interchange fees are a particularly effective way to do so, by establishing a minimum merchant fee at an elevated level.⁹⁸

2. Does History Support The Use of Interchange Fees?

Alan Frankel followed William Baxter in interpreting interchange fees as a modern version of similar “exchange fees” once collected by some issuing banks when redeeming their bank notes (privately issued currency) in the Nineteenth Century and on checks well into the Twentieth Century. These earlier incarnations of interchange fees were associated with the exercise of market power either by geographically isolated banks lacking local competition or by bank cartels operating through their local clearinghouses.⁹⁹ Despite the existence of an active secondary market for bank notes in which distant notes incurring exchange charges could be deposited or redeemed locally only at a discount, for many ordinary retail transactions merchants reportedly accepted nonpar notes at par and were able to keep the notes circulating at par. As a result, the more costly non-par notes inefficiently tended to crowd less costly par notes out of

98. See, e.g., Dennis W. Carlton and Steven C. Salop, *You Keep on Knocking But You Can't Come In: Evaluating Restrictions on Access to Input Joint Ventures*, 9 *Harvard Journal of Law & Technology* 319 (1996), at 334 (“A venture could... influence output market prices indirectly by raising input prices...”).

99. Baxter, *Bank Interchange*, at 556-71; Frankel, *Monopoly and Competition*, at 347 (“Long lasting exchange charges always have reflected market power and survived in the past only where the issuing bank was protected from competition by correspondent banks as a result of geography or clearinghouse cartels. Credit card interchange fees fit comfortably into this historical pattern.”). See also, Ed Stevens, *Non-Par Banking: Competition and Monopoly in Markets for Payments Services*, Federal Reserve Bank of Cleveland Working Paper 9817 (1998) at 19 (“The persistence of non-par banking can be explained readily. Non par banking could not have survived in competitive markets, but non-par banks did not operate in competitive markets.”).

circulation.¹⁰⁰ Elimination of interchange fees on notes, and later checks, constrained the exercise of market power and improved the efficiency of retail payment systems.

Howard Chang and David Evans criticize this historical analysis.¹⁰¹ With respect to nonpar bank notes being accepted at par by merchants, they claim “the story is factually questionable.”¹⁰² They dispute whether price coherence prevailed, citing scholars who claim that non-par bank notes were sometimes accepted only at a discount not only by banks and exchanges, but also by merchants.¹⁰³ But this observation simply reinforces Frankel’s conclusions. Chang and Evans do not claim the sources cited by Frankel were wrong or that merchants *always* surcharged for nonpar bank notes in ordinary retail transactions in order to make them indifferent between currencies; had they done so city banks would likely have far less (if any) incentive to attempt to compel the country banks to settle at par in the way Frankel describes. They do not question that merchants accepting payment by nonpar check tended to accept those checks on the same terms as for par checks, causing harm to other customers.¹⁰⁴ Moreover, the exceptions noted by Chang and Evans simply prove the rule: they explain how merchants, by undertaking additional efforts required to surcharge nonpar payments (i.e., by having customers bear differential costs imposed by their choice of payment method or

100. To the extent merchants accepted non-par notes or checks at par and then deposited them, thereby incurring exchange charges, price coherence – same par and non-par prices – meant that all of the merchant’s customers were absorbing the higher prices resulting from the banks’ ability to impose exchange charges on the merchants’ banks.

101. Howard Chang and David Evans, *Competitive Effects*, at 669-77.

102. *Id.*, at 671.

103. *Id.* At 671-72.

104. “Nonpar Banking: Near the End of an Era?” *Federal Reserve Bank of Minneapolis Monthly Review*, May 1966, at 7 (“[T]he direct expense of handling nonpar checks is most often borne by merchants.... Such costs, naturally, cannot be absorbed: they must be added to operating costs, which in turn are reflected in the selling price of products sold. The ultimate bearer of the charge is the consumer.”).

presumably even rejecting particularly costly bank notes) can sometimes reduce the harm that otherwise would result to the merchants and their customers. The decentralized ability for merchants to choose which payments to accept, and at what value, has been denied to merchants by MasterCard and Visa, which have imposed “honor all cards,” “no surcharge,” and “no discrimination” rules.

Chang and Evans’ other principal criticism of Frankel’s historical analysis does not dispute that competition eroded and eliminated exchange fees, or that those fees were sustained by monopolies or cartels. Rather, they challenge a fundamental aspect of the U.S. banking system during the past two centuries – the requirement that banks’ demand claims be payable at par when presented over the issuing bank’s counter during normal business hours. They note that the competitive result (par collection) was dictated by a legal rule that required banks to redeem their demand obligations presented over their counter at full par value. This much is not in dispute.¹⁰⁵ They challenge, however, the underlying premise that it was efficient and consistent with competition for demand claims to be redeemed at par, instead claiming the par presentment rule is an arbitrary and inefficient legal restriction that banks, when they had the requisite market power, were able to overcome in order to achieve the efficiency denied them by par presentment rules they believe are misguided. Chang and Evans apparently would support the formation of an industry-wide banking cartel that imposed universally applicable interchange fees on checks (assuming, hypothetically, applicable banking laws and regulations were

105. Frankel, *Monopoly and Competition*, at 327 (“Had there not been an established legal right to present directly to banks their demand obligations at par, the bank note clearinghouse likely could have used its cost advantage to institute a collusive exchange charge whereby even city banks would be forced to agree not to redeem at par in order to participate in the clearinghouse.”)

repealed). It is implausible, however, that interchange fees on checks would benefit the public given the success of checking account services with universal par collection, the clear historical record of anticompetitive effects from the exercise of market power through exchange fees, and no demonstration that such price fixing resulted in a more efficient checking market, let alone was necessary for the operation of the checking market.

Checks in the early days of the Federal Reserve System likely imposed greater transaction costs on most merchants at the point of sale than cash, yet when banks and clearinghouse cartels imposed exchange fees, they never imposed *negative* fees requiring issuers to remit funds that would help offset the merchant costs, as suggested by the usage externality theory. Instead, they used their market power as one would expect, extracting private tax revenue for their own benefit, not to achieve some socially efficient and optimal result.

3. Are Interchange Fees Needed to Provide Parity with Proprietary Card Systems?

The Associations and their supporters argue that they should be granted latitude to act like integrated, proprietary payment networks such as that American Express has historically operated. American Express, they argue, can determine for itself the allegedly proper and efficient “balance” between merchant fees and consumer fees. To “level the battlefield,” they suggest antitrust policy should permit MasterCard and Visa to use the interchange fee system to enable them to act like American Express and Discover Card.¹⁰⁶

106. See, e.g., Evans and Schmalensee, *Paying with Plastic*, at 288-89 (“...NaBanco could

An integrated firm like American Express can exercise market power and exploit price coherence by charging high fees to at least some merchants. (Recall the lack of correspondence between market share and market power; any brand deemed by a merchant to be commercially necessary to serve a significant number of customers can exercise market power.) American Express can do this without resorting to any price agreement between competitors, although American Express uses vertical restrictions similar to those used by MasterCard and Visa, by including a “no discrimination rule” in its merchant agreements.¹⁰⁷ The lack of horizontal interchange fee agreements with American Express may be changing. As a result of the injunctive relief granted in *U.S. v. Visa and MasterCard*, bank members of MasterCard and Visa are now able to issue competing cards carrying the American Express, Discover Card, or other brand, without losing their membership in the Associations. Some banks have recently announced that they intend to exercise this ability by agreeing to issue cards branded by American Express. It is possible that American Express’ arrangements with these issuers could themselves be challenged as not substantively different from interchange fees among horizontal card-issuing competitors.

contend that setting an interchange fee between acquirers and issuers was illegal price fixing, even though the internal prices set within American Express and the Novus [Discover Card] systems to balance the incentives for acquiring and issuing are completely immune to antitrust challenge.... In many [joint venture] cases, the joint venture participants would have faced no antitrust issue had they merged into a single firm, eliminating all competition between them, and engaged in the same practices.”)

107. American Express Company, SEC Form 10-K for the Year 2004, at 11 (“[W]e do encounter a relatively small number of merchants that accept our Cards, but tell their customers that they prefer to accept another type of payment and, consequently, suppress use of the Card. We devote significant resources to respond to this issue... when necessary, by canceling merchants who suppress the use of our Card products.”)

Permitting the Associations to act more like American Express would exacerbate, not alleviate, these competitive concerns. Competition between four-party networks permitted to charge interchange fees already serves the interests of issuers and tends to replicate the monopoly outcome. An integrated network can achieve this same outcome more easily and directly. A market with, say, four integrated competitors (i.e., merged/integrated MasterCard and Visa networks, plus American Express and Discover Card) would not likely generate more competition over merchant fees for the very reasons first articulated by Baxter in connection with unilateral or bilateral interchange fees and more recently in some of the theoretical literature.

American Express' traditional strategy has been to maintain a premium image and an upscale clientele who spend more, on average. It has tended to keep its merchant fee somewhat above the level resulting from MasterCard and Visa interchange fees, while lagging the Associations in merchant acceptance. American Express customers are more likely to also carry an active MasterCard or Visa Card than the Association cardholders are to also carry an American Express card.¹⁰⁸ A merchant considering whether to drop acceptance of the more expensive American Express cards therefore may risk losing fewer customers than a merchant considering whether to drop MasterCard or Visa cards (but when it does, they are higher profit customers, on average). A reduction or elimination of MasterCard and Visa interchange fees would therefore tend to force American Express to lower its own merchant fee to avoid losing some of its existing

108. See, Marc Rysman, *An Empirical Analysis of Payment Card Usage*, unpublished manuscript, January 8, 2004.

merchants.¹⁰⁹ The Associations have suggested that reducing or eliminating their interchange fees will benefit firms like American Express,¹¹⁰ but American Express has acknowledged that reductions in interchange fees compel it to reduce its own fees.¹¹¹

The Associations have also suggested that merchants will end up paying more than they do today, due to a shift of issuing volume towards American Express. But American Express maintains a premium price because its customers are, on average, more desirable to merchants; if all issuers shift significant volume towards American Express, its customers, on average, will be more typical of current bank card customers.

109. After the Reserve Bank of Australia mandated a significant reduction in MasterCard, Visa, and BankCard interchange fees, American Express merchant fees also fell, albeit by a smaller amount. *See*, Reserve Bank of Australia, Payments System Board Annual Report 2004, pp.12-13.

110. *See, e.g.*, “Let’s Get Real,” Remarks of Noah J. Hanft, General Counsel, MasterCard International, Federal Reserve Bank of Kansas City, Santa Fe, New Mexico, May 6, 2005 (<http://www.kansascityfed.org/FRFS/PSR/pdf/LetsGetReal-Hanft.pdf>, visited June 26, 2005); Network Economics Consulting Group, *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*, Visa International Service Association (2001), at 62 (“Following a forced reduction in the interchange fee set by open schemes.... [c]losed card schemes will also enjoy an increase in profits.”).

111. “Freedom Of Choice: Opening The Marketplace For Card Issuers,” Remarks prepared for Harvey Golub, American Express chairman and chief executive officer, Credit Card Forum, Atlanta, Georgia, May 2, 1996 (<http://home3.americanexpress.com/corp/doj/foc.asp>, visited June 26, 2005) (“[F]or more than 10 years, the interchange setting mechanisms have indicated that the rates are set too low.... [A]s a Visa member, I would wonder how it is in my interest to have merchants push American Express to lower merchant rates... In fact, we did lower prices at American Express....”); Remarks by Ed Gilligan, American Express Group President, Global Corporate Services and International Payments, Financial Community Meeting, August 4, 2004 (http://home3.americanexpress.com/corp/corpinfo/fcm0408/pdfs/fcm0408_eg_s.pdf, visited June 26, 2005), at 10 (“[L]imits on the level of interchange fee.... could exert a downward pull on our own discount rates.”). American Express Company, SEC Form 10-K for the Year 2004, at 13 (“[G]overnment regulation of the bankcard associations’ pricing could ultimately affect all card service providers by requiring reduction of the levels of interchange, which will drive down merchant discount rates. Downward movement of interchange and merchant discount fees may affect the relative economic attractiveness to card issuers and merchant acquirers of participation in a particular network.... Reductions in bankcard interchange mandated by the Reserve Bank of Australia in 2003 have resulted in lower merchant discount rates for VISA and MasterCard. As a result of changes in the marketplace, we have reduced our own merchant discount rates in Australia....”).

Although it may not seem fair from the Associations’ perspective to deny them the ability to tax retail transactions in the same way that American Express can, we believe that it is appropriate to ask whether it makes sense to allow industry-spanning Associations of banks to act as if they had merged into a single firm to collectively exploit the existence of transaction costs and their own vertical price and non-price restrictions, in a way that is economically equivalent to taxation of almost all retail sales. Indeed, it might make sense instead to ask the question in reverse; if the efficiency and competitiveness of payment markets can be maximized by harnessing the power of four-party, par collection payment systems, then might there be an economic justification to regulate or restructure a firm like American Express at some future date if the “unbalanced” playing field described by the Associations should ever threaten to deprive the public of the benefits of four-party system competition?¹¹²

Decentralized, four-party payment systems have the potential to generate significant competitive benefits to the public that are unlikely to be realized in a market consisting exclusively of a handful of integrated competitors. Permitting all members of MasterCard or Visa to merge their credit card operations would obviously cause

112. Although there is a “failing firm defense” in United States merger law and policy, competition authorities here have long expressed a preference to maximize the competitive benefits from a merely declining industry for as long as possible, rather than permit a merger that prematurely eliminates significant competition. The Merger Guidelines, for example, accept a failing firm defense in only very limited circumstances. It would seem inconsistent to permit thousands of banks to price collectively like a monopolist on the basis of a stated long-term concern that their credit card businesses might erode over time as proprietary three-party systems grow as a result of their continued ability to exploit price coherence through higher merchant fees.

significant harm to the public; permitting them to price collectively as if they had merged is not necessary and likewise harms the public.¹¹³

4. Can Interchange Fees Be Justified As Compensation For Specific Costs Incurred By Issuers For Merchants?

MasterCard and Visa have described the basis for their interchange fees in different ways. Visa has stuck fairly close to Baxter’s description, reportedly claiming, “interchange is a financial adjustment to reduce the imbalance between the costs associated with issuing and acquiring, with a view to increasing demand for use of the payment services...”¹¹⁴

At least in Australia, Visa does not contend that it actually pursues a process that resembles any of the theoretical “balancing” models offered by its economic consultants. Instead, it reportedly claims merely that “The setting of interchange fees is a complex matter that requires commercial judgment. In the current arrangements, this judgment is shaped by the realities of market-place competition.”¹¹⁵ “Competition” of this sort today, however, is dysfunctional – protecting issuers, not the public at large.

MasterCard – not a defendant in *NaBanco* – describes the justification for the existence and level of its interchange fees differently than Visa, reportedly explaining, along with domestic U.K. network Switch, that interchange fees “compensate card issuers for the cost of services they supply to acquirers through the payment scheme” which “[a]cquirers in turn supply... to retailers.”¹¹⁶ MasterCard claims there are “three main

113. *See, e.g.*, 2003 WL 1712568 (E.D.N.Y.), pp.4-7, finding that Visa had market power as a matter of law, that Visa and MasterCard combined had over a 90 percent share of the credit card market, and that there was evidence from which a jury could find a conspiracy.

114. *Cruickshank Report*, p. 261.

115. Michael Katz, *Reform of Credit Card Associations in Australia II, Commissioned Report* (2001), n89.

116. *Cruickshank Report*, D3.78. In Australia, MasterCard contends “Interchange fees can be thought of as a reimbursement by the acquirer to the issuer for part of the issuers’

cost components” to its interchange fee. These include, first, the “cost of providing a payment guarantee,” which in turn is composed of two cost elements: “fraud losses incurred by issuers and issuer costs of authorisation and risk control.”¹¹⁷ The second and third main components allegedly incurred by issuers on behalf of retail merchants include “the cost of funding the interest free period for those customers who receive one; and the costs of processing incoming transactions.”¹¹⁸

MasterCard’s description of the interchange fee is markedly different from that of Visa.¹¹⁹ Whereas Visa stresses the complexity of its claimed balancing process, MasterCard simply itemizes a few specific issuer costs it claims should be covered by the interchange fee.¹²⁰ But those cost elements are arbitrary and it cannot be shown that they need be charged to merchants through collective action of the issuers in order to achieve efficiencies.

costs so as to optimise the services they carry out for the benefit of both cardholders and merchants.” MasterCard International, Incorporated, *Submission to the Reserve Bank of Australia* (June 2001), at 39.

117. *Cruickshank Report*, D3.78.

118. Reserve Bank of Australia, *Reform of Credit Card Schemes in Australia I*, A Consultation Document, December 2001, p.43. See also, *MasterCard Bylaws and Rules*, May 1999, §11.09(a), as quoted in Michael Katz, *Reform of Credit Card Associations in Australia II, Commissioned Report* (August 2001), n88 (“For sales transactions, various elements of expense make up the interchange fee, including cost of processing, costs of money, and increased risk due to the use of MasterCard cards in interchange transactions.”)

119. Gans and King contend there actually is no economic distinction between the rationales offered by the two Associations. But there is at least a clear practical difference between a sweeping claim that Visa must be trusted to finely balance unmeasured and unstated consumer and merchant costs and demand because this balancing act is so “complex,” and MasterCard’s claim that a few specific cost items can be measured and charged to merchants as an interchange fee.

120. In settling the investigation by the European Commission, Visa agreed to base its cross-border interchange fee, like MasterCard, on the “cost of payment guarantee,” “cost of processing,” and “cost of free funding period.” It claims those costs account for 50%, 24%, and 26% of cross-border credit card interchange fees, respectively. See, <http://www.visaeurope.com/acceptingvisa/interchange.html>, visited April 4, 2005.

The “payment guarantee” refers to the fact that a merchant receives payment even if the cardholder never pays an outstanding balance or in the event of cardholder fraud when the issuer authorized the transaction after the merchant followed proper procedures. Card issuers, however, make all decisions concerning the extension of credit. Issuers decide to whom they offer and issue cards, the size of credit lines, and whether to authorize particular transactions, and because they observe all transactions made on a particular card account, issuers are in a better position than acquirers or merchants to monitor and control cardholder fraud. It therefore makes economic sense for issuers to bear the costs resulting from their credit extension decisions.¹²¹

MasterCard claims “payment guarantee” costs benefit the merchant, but that attribution is entirely arbitrary. A payment guarantee is valuable not only to sellers, but also to buyers who find it easier to pay for goods and services. A cardholder can travel to a distant city, rent a car and check into a hotel without having to procure cash and leave a cash deposit, or purchase a draft or letter of credit from a bank to satisfy those service providers. Reductions in transaction costs reduce the spread between the total cost paid by consumers and the amount received by sellers, and benefit both parties. It therefore makes economic sense to align the component of a payment cost with the party best able to monitor and control those costs.

The interest free period is the second component of MasterCard’s cost justification. To the extent it is provided to cardholders, the free period is a cost

121. In the Germany Ec-Karte system, merchants may opt-out of the collectively set fee for a payment guarantee and self-insure or obtain third party insurance. As a result, we understand that most merchants choose to opt out and pay no interchange fee. No payment guarantee is provided to merchants in connection with many “card not present” transactions such as those occurring through Internet-based commerce. Yet interchange fees are *higher* on such transactions.

determined by the issuer, and so it makes sense that it be borne by the issuer. On its face, an interest-free loan is an obvious consumer benefit. MasterCard, however, claims this free period actually benefits a merchant. It reasons that prior to the introduction of general purpose cards, merchants wishing to offer sales on credit typically offered an interest free period until the end of the billing month, after which interest might be computed on outstanding balances. By relieving merchants of the need to absorb the cost of providing the interest-free period, MasterCard claims the issuers deserve to recover that cost from the merchants.

This reasoning is flawed. In part, it reflects a misunderstanding of the likely origin of interest-free periods. Prior to the invention and general adoption of computer technology, merchants offering credit to their customers – particularly small merchants – would have been faced with a difficult and expensive task if they sought routinely to charge interest during the period between the purchase date and the statement date. At the same time, interest rates were usually relatively low, so it was more sensible to wait until the statement date and then apply simple, easily computed interest (say, at 1% or 1.5% per month) on the unpaid balance. This would especially be true for merchants from which customer purchases were frequent and small, such as neighborhood grocery or general stores.

That consumers today sometimes obtain an interest-free period on their credit card purchases does not imply that merchants should bear these costs, particularly if those costs are collectively determined and collected by issuing banks. Permitting the Associations to use average issuer costs from this source to justify collective taxation of retailers and reimbursement of issuers (irrespective of each issuer's own cost of providing

the free period, if any) is unlikely to generate economic efficiencies. There is no technological reason why anyone must now bear this cost – it is a marketing decision by the individual card issuer that, for MasterCard and Visa accounts, is now entirely beyond the control of merchants. Issuers, however, are able to fund the costs of an interest-free period, if consumers find them valuable, through finance charges when they do revolve a balance, or through or other fee arrangements.¹²² There is no economic reason why merchants must continue to absorb these costs simply because in an earlier technological era that was their best solution in the face of transaction and computing costs.

It is not clear what is included when MasterCard refers to “the costs of processing incoming transactions” as the third main component of interchange fees, so it is difficult to address these alleged costs. As a general matter, costs such as merchant fraud, merchant-side processing, and merchant infrastructure, are under the control or influence of acquirers, and should be borne by acquirers. Costs such as cardholder fraud, credit losses, and cardholder billing are under the control or influence of issuers, and should be borne by issuers to encourage efficient markets.

There is a sound and sensible economic basis for simply having acquirers recover costs from their own merchant customers, and issuers from their own cardholder customers. Issuers and acquirers will, in competitive equilibrium, be able to recoup all of their costs. If, in fact, issuers did incur costs that benefited merchants but not

122. MasterCard and Visa have apparently also cited the cost of funding both the free period and credit losses as reasons why *finance charges* are set at relatively high rates. Christopher DeMuth, *The Case Against Credit Card Interest Rate Regulation*, 3 *Yale Journal on Regulation* 201 (1986) (“[F]ive-sixths of all outstanding balances are earning interest at any point in time. Thus, an average nominal interest rate of eighteen percent translates to an average effective interest rate of about fifteen percent. This must be taken into account in any comparison between credit card credit and other forms of consumer credit.”)

cardholders, then merchants would rationally want to compensate consumers who use credit cards, and they could use price or non-price means to do this. Such efforts would be decentralized and competitively based, not collusively determined and imposed.

E. Recent Regulatory Reviews of Interchange Fees

A recent survey of interchange fees across countries by Stuart Weiner and Julian Wright found that interchange fees in the United States are among the highest in the world (of those publicly known), and that fees in several other countries have been declining, particularly where there has been regulatory intervention (or the threat thereof), the right of merchants to surcharge credit card transactions, or both.¹²³ Several regulators have concluded now that interchange fees are not based on the costs that the Associations claimed, and that interchange fees are set at inappropriately high levels.¹²⁴

1. Australia

Australia has conducted the most sweeping and public regulatory reform of interchange fees and related retail payment practices. A Joint Study between Australia's central bank and its competition authority found that interchange fees in Australia are not reviewed regularly by credit card scheme members on the basis of any formal

123. Stuart Weiner and Julian Wright, *Interchange Fees in Various Countries: Developments and Determinants*, paper prepared for "Interchange Fees in Credit and Debit Card Industries: What Role for Public Authorities," Federal Reserve Bank of Kansas City, April 25, 2005; Alan S. Frankel, *Interchange Fees in Various Countries, Comment on Weiner and Wright*, forthcoming, Federal Reserve Bank of Kansas City (2005).

124. *See*, Cruickshank Report; Reserve Bank of Australia, Reform of Credit Card Associations in Australia I, A Consultation Document, December 2001; and Official Journal of the European Communities, Notice Pursuant to Article 19(3) of Council Regulation No. 17, Case COMP/29.373 – Visa International (2001/C 226/10).

methodologies.¹²⁵ It also found that the fees are higher than the costs incurred by issuers in providing credit card payment services to merchants and that competition does not seem to be bringing these fees into line with costs. The Joint Study concluded that credit card interchange fee arrangements in Australia are contributing to a structure of incentives that has encouraged the growth of the credit card network at the expense of less costly payment methods.¹²⁶

The Reserve Bank of Australia (RBA) followed with a lengthy review of interchange fees, the no-surcharge rule, and other competitive issues in retail card payment systems. In one proceeding, the RBA concluded that interchange fees were higher than the costs it deemed relevant; the resulting fees inefficiently encouraged credit card usage; there was no evidence that externalities that might be addressed by interchange fees were important; and the levels at which interchange fees were set were inconsistent with the explanations provided by the Associations.¹²⁷ Based on its findings, the Reserve Bank imposed a roughly fifty percent reduction in interchange fees on Visa and MasterCard transactions in late 2003.¹²⁸ Credit card interchange fees in Australia are

125. Australian Competition and Consumer Commission and Reserve Bank Of Australia, *Debit And Credit Card Schemes In Australia: A Study Of Interchange Fees And Access* (2000).

126. Reserve Bank of Australia, *Reform of Credit Card Associations in Australia I, A Consultation Document*, December 2001, p.16. A similar argument has been advanced for the United States. See, Sujit Chakravorti and Alpa Shah, *Underlying Incentives in Credit Card Networks*, __ Antitrust Bulletin 53 (2003).

127. *Id.*, at 26-27 (“[A]lthough credit cards clearly provide benefits to individual cardholders and merchants, the benefits to cardholders and merchants as a whole are overstated. No evidence has been provided that credit card usage reduces transaction costs for merchants as a whole. Nor has evidence been provided that credit card usage leads to a permanent increase in sales for merchants as a whole, or, equivalently, a permanent increase in aggregate consumption. The evidence that is available contradicts this assertion.”); *Id.*, p.28. (“Economic analysis casts doubt on whether these [network externality] effects are significant. For example, two earlier articles sponsored by Visa concluded that network externalities can decline to zero as a network expands.”)

128. Reserve Bank of Australia, Payment Systems Board, Annual Report 2004.

now about 0.40% – roughly one-fourth the reported average level in the United States.

The Reserve Bank reports that acquirers have passed essentially the entire interchange fee reduction on to merchants, and it concludes retail prices have declined as a result.¹²⁹

As described in Part II(B), MasterCard warned that any reductions in interchange fees could destroy a delicate balance maintained by the Associations, causing what it called a “death spiral” in which there would actually be fewer merchants willing to accept the Associations’ cards despite their lower fees – due to two-sided indirect network effects and the (assumed) unwillingness of some consumers to continue using cards due to higher transaction fees – which would lead to further reductions in the willingness of consumers to hold and use cards.¹³⁰ As a result of the reduction in interchange fees, however, there is no indication that consumers are being required to pay transaction fees to their issuing banks, although there have been reductions of some loyalty programs (e.g., frequent flier point incentives) and fixed annual fees are becoming more common, particularly in connection with loyalty program cards. These might tend to reduce the number of cards each consumer tends to carry, but given the ubiquitous nature of credit cards, it is much less likely to induce consumers to cease carrying any credit card at all.¹³¹

129. Reserve Bank of Australia, Payment Systems Board, *2004 Annual Report*, p. 9 (reporting that the average merchant discount rate quickly fell by an amount “broadly in line with the fall in the average interchange fee.”); Ian McFarlane, Governor, Reserve Bank of Australia, testifying before the House of Representatives Standing Committee on Economics, Finance and Public Administration, June 4, 2004 (“In the credit card case, a fee on merchants was reduced and the banks said, ‘They won’t pass it through.’ They did pass it through. We know that; we have done the research.”).

130. Note 68, *supra*.

131. To the extent some consumers reduce their usage of credit cards, this was considered desirable. One of the Reserve Bank’s goals was to shift consumers towards greater use of the more efficient PIN debit EFTPOS system. All consumers, meanwhile, will obtain lower prices at retail due to reduced credit card fees.

The Reserve Bank of Australia also eliminated the Associations’ “no surcharge” rules. The Reserve Bank found that some merchants in a wide variety of industries have responded by instituting surcharges for credit cards, notwithstanding the interchange fee reductions.¹³² Rather than a death spiral, it appears that the number of merchants accepting cards has increased, as some merchants that previously did not accept cards due to their cost have decided to accept them with a surcharge.¹³³ At least in the short run, the trend in overall credit card usage does not appear to have been affected significantly by the reduction in interchange fees, and there is no evidence of a “death spiral.”¹³⁴

Some have claimed that the Australian reforms nevertheless did upset a balance, but not a Baxter-like balance between issuers and acquirers. Rather, they claim that three-party issuers, such as American Express, are now growing rapidly in Australia, and issuers will have an incentive to switch to issuing American Express cards.¹³⁵ The Reserve Bank of Australia provides some context, noting “a small increase in market share” for three party Associations “from a low base.” American Express fees, meanwhile, have declined along with interchange fees, although by a smaller amount.

132. *Id.*, p.11.

133. The reduction in interchange fees and the increase in surcharging reduce the burden on customers who do not use credit cards and cause credit card customers to bear more of the costs of the perks they are provided when using credit cards. Cardholders who wish to obtain benefits from airline reward programs are increasingly being asked to pay an annual fee (and rewards have been reduced), but transaction fees have not appeared.

134. For example, Commonwealth Bank – one of Australia’s largest banks – notes that there has been “No reduction in use of credit cards,” along with a “Proliferation rather than a consolidation of credit cards per customer.” Stephen Morrow, Commonwealth Bank, “Credit Card Reforms,” April 6, 2004. *See also*, Reserve Bank of Australia, Payment Systems Board, *Annual Report 2004*, p.2.

135. *See, e.g.*, Hanft, Let’s Get Real, note 109, *supra.*; David S. Evans and Richard Schmalnensee, *The Economics Of Interchange Fees And Their Regulation: An Overview*, Federal Reserve Bank of Kansas City (2005), at 37-39.

Some merchants have also begun surcharging only American Express cards, or surcharging a higher amount for American Express than for other credit cards.¹³⁶

The Reserve Bank has stated that it will continue to monitor the situation.¹³⁷

There are some indications that the Reserve Bank, which plans an updated review in 2007, may consider moving farther towards a par collection system both for credit cards and PIN debit (EFTPOS) transactions.¹³⁸ Should American Express or other three-party credit cards begin to significantly displace the existing bank cards, the Reserve Bank might perhaps consider additional regulation of American Express, but, for now at least, that concern appears to remain largely hypothetical.¹³⁹ The reduction in merchant costs (and therefore retail prices), however, is real and benefits all customers.

2. Other International Developments

In the United Kingdom, the Cruickshank Report concluded that “fears of exaggerated interchange levels are justified.”¹⁴⁰ It also found that the Associations were including costs that were not relevant to the provision of a payment service (e.g., the interest-free period) in their rationale for the fees, and that the available evidence was inconsistent with the Associations’ fee structure being based on costs.¹⁴¹

136. Reserve Bank of Australia, Payment Systems Board, *Annual Report 2004*, pp.11-12.

137. *Id.*, p.13.

138. *Reform of the EFTPOS and VISA Debit Systems in Australia: A Consultation Document* (February 2005), p. 2 (“The Bank has already announced its intention to review the standards for the credit card schemes in 2007. At that time the Bank intends to review interchange fees in all card payment systems to assess whether the public interest would be promoted by moving the various arrangements for setting interchange fees to a more consistent basis.”)

139. In Australia, Visa contends American Express already has the equivalent of interchange fees, and ought to be regulated in a manner similar to MasterCard and Visa. *See, e.g.*, NECG/Visa, *Level Playing Field*, note 109, *supra*.

140. Cruickshank Report, p.270.

141. Cruickshank Report, p.270..

Regulators elsewhere have become interested in the justifications offered for the existence and level of interchange fees. The European Commission reached an agreement with Visa in 2001 under which Visa will reduce its cross-border, intra-regional interchange fee for direct debit card transactions by more than 50%, and its weighted average interchange fee for credit and deferred debit cards to 0.7% by 2007 (roughly a 20% reduction).¹⁴² Visa also agreed to submit specific cost studies to provide objective benchmarks, will not exceed those benchmarks in the future, and will increase the transparency of interchange fees and underlying costs to merchants.¹⁴³ In November 2004 the United Kingdom’s Office of Fair Trading issued a Statement of Objections challenging MasterCard’s interchange fees and summarizing “the OFT’s proposed findings to the effect that parties to the [MasterCard interchange fee] agreement have infringed competition law.”¹⁴⁴ Other regulators and courts are also reviewing the Association’s interchange fees.¹⁴⁵

IV. Conclusion

There will always be some transaction costs in the economy resulting from the imperfections in and the competitively determined costs of engaging in retail trade and payment.

142. *Official Journal of the European Communities, Notice pursuant to Article 19(3) of Council Regulation No. 17, Case COMP/29.373 – Visa International*, August 11, 2001. (Frankel testified at the Commission’s oral hearing on behalf of Complainant EuroCommerce.)

143. *Id.*

144. Office of Fair Trading, “OFT issues statement of objections on Mastercard agreement,” press release, 184/04, 10 November 2004 (“The OFT proposes to find that the current agreement between members of MasterCard UK Members Forum Limited on common fees charged between banks on transactions taking place in the UK using a UK-issued MasterCard infringes Article 81 of the EC Treaty and the Chapter I prohibition of the Competition Act 1998. The OFT believes that the agreement leads to an unduly high fee being paid to card issuing banks on every such transaction. The cost of these fees is passed on to retailers and ultimately to consumers.”)

145. *See, e.g., note 7, supra.*

An interchange fee, however, artificially increases those costs. It acts much like a sales tax, but it is privately imposed and collected by banks, not the government. It significantly and arbitrarily raises prices based not on technologically and competitively determined costs, but through a collusive process in which the only competition that exists serves to offer card issuers greater interchange fee revenue. Interchange fees distort competitive markets by steering consumers towards using more costly and less efficient payment methods, and generate significant increases in costs due to rent-seeking behavior. The increasingly elaborate and technically complex defenses offered for interchange are unconvincing: they do not establish either that interchange fees are necessary or that they contribute positively towards economic efficiency, and there is no evidence that the Associations use interchange fees in the manner suggested by the theories advanced in their support. As Michael Katz reminds us,

One can write down theoretical models in which the cartel outcome is more efficient than the non-collusive outcome. But we do not allow this possibility to paralyze public policy toward price fixing. Indeed, the efficiency enhancing effects are considered so unlikely that price fixing of this sort is per se illegal in the United States.¹⁴⁶

This is exactly right. The mere ability to construct a theoretical model in which it might be *possible* for an omniscient and benevolent social planner to fix an interchange fee in a way that improves upon a decentralized, competitive market, does not mean that this is what banks do if given the unrestricted right to fix these prices – particularly when there is a clear and plausible mechanism by which such price fixing, in fact, harms the public. The evidence, moreover, is consistent with the use of interchange fees as an

146. Michael Katz, *What do We Know about Interchange Fees and what does it Mean for Public Policy?*, forthcoming, Federal Reserve Bank of Kansas City (2005), at 17.

anticompetitive cartel device, and cannot be reconciled with claims that interchange fees are used today to achieve efficiencies.

The economic rationale for the continued maintenance by the Associations (and American Express) of no-surcharge or no-discrimination restrictions on merchants is even more tenuous than the defenses of interchange fees themselves. Indeed, some defenders of interchange fees have noted that their economic rationales evaporate if merchants can easily price differentially according to the payment method used. Vertical restrictions on merchants prevent direct competition between the networks from occurring at the point of sale. Although merchants historically have been reluctant to price differentially at the point of sale, modern retail payment technology makes this easier than ever and there is no reason to impede one of the few ways merchants have to align their interests with those of their customers.

Decentralized competitive alternatives exist to the collective imposition and setting of interchange fees. The interchange fee itself could be eliminated, leaving each bank and merchant to compete independently for the patronage of their respective customers, or interchange fees could be limited to voluntary bilateral arrangements. Opportunities for competition among networks, processors and individual banks to transmit, clear and settle transactional data should be encouraged, not prohibited, so that those paying fees for payment services have genuine choices over how to clear and settle retail transactions.

In the United States, controversies over interchange fees and vertical restrictions in card payment systems have primarily centered on private antitrust litigation, although regulatory authorities in other countries are showing more interest in these topics than has

been the case here. The Federal Reserve System, long concerned with the efficiency of the check clearing marketplace, is becoming increasingly interested in card payment systems as well. This is a positive development that should contribute to the understanding of the economics of modern card payment networks.