

The merchant-bank struggle for control of payment systems

Adam J. Levitin
is an attorney in New York City

Abstract

Merchants and banks are currently engaged in a wide-ranging struggle for control over payment systems. The conflict is playing itself out in business practices, in banking regulation, in corporate governance, in corporate restructuring, and in the biggest antitrust litigation since AT&T. Yet, it is possible that the extraordinary energy being spent in this fight is for naught, as the growth of national bank brands, technological developments, and innovative business models are likely to result in a radical reshaping of the payments world. This article reviews the factors behind the struggle between merchants and banks and the strategies adopted by each, and questions what impact changes in the payment card industry's structure and the emergence of new payments technologies and business models will have on the merchant-bank contest.

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At the core of the merchant-bank dispute is the fact that different payment systems have different acceptance costs for merchants. Precise quantification of these costs is difficult and varies by merchant, but credit cards are by far the most expensive payment system for merchants, followed closely by signature-based (offline) debit cards. Next come PIN-based (on-line) debit cards, then checks, and finally cash [Levitin (2005)]. A credit card transaction costs a typical retailer about six times what a cash transaction does and twice as much as a PIN-based debit card².

	Checks	Credit cards & offline (signature) debit cards	Online (PIN) debit cards	Cash
Cost per transaction	\$0.36	\$0.72	\$0.34	\$0.12
Cost per \$100 sales	\$0.80	\$1.80	\$0.80	\$0.90

Source: Humphrey et al., (2003)

Figure 1 - Retailer payment costs in U.S. in 2000

Normally, when goods or services have different costs to merchants, the cost differences are reflected in the price charged to consumers. Payment systems are different. Merchants are unable to pass along the relative costs of different payment systems to consumers because the rules of the major payment card networks – MasterCard, Visa, American Express, and Discover – functionally require merchants to charge consumers the same price, regardless of the payment system [Levitin (2005)]. Therefore, merchants must either absorb the cost of higher priced payment systems or raise the cost of all goods and services to the level necessary to cover the cost of the higher priced payment systems, but at the expense of sales volume. This problem has been exacerbated in recent years as the cost of accepting payment cards has increased, as has the number of payment card transactions and the percentage of transactions made on payment cards. The average cost of accepting payment cards has increased since 2003 by at least ten percent for almost two-thirds of retailers, and by at least twenty-five percent for over a quarter of retailers³.

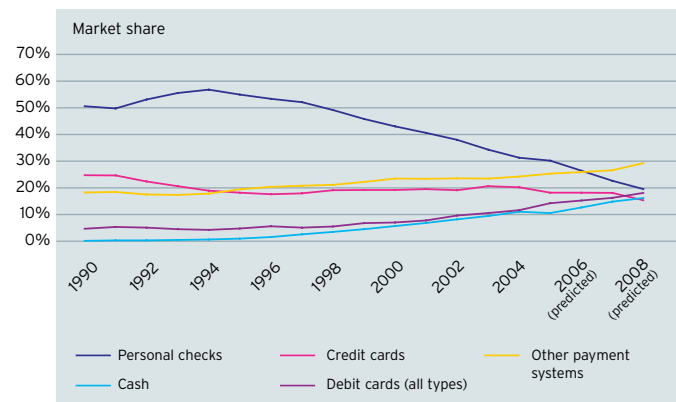


Figure 2 - U.S. payment systems market share by dollar volume
Source: Nilson report

The rising cost, number, and percentage of payment card transactions have combined to squeeze many merchants' profit margins without providing any corresponding increase in the benefits of card acceptance. In fact, for many merchants, payment card acceptance has become the fastest growing cost of doing business. While the cost of payment acceptance is only a few cents or dollars per transaction, these costs accumulate quickly. As much as U.S.\$40 billion per year is involved in the U.S. alone,⁴ which makes the interchange component of the payments industry larger than the music industry, the microprocessor industry, the electronic game industry, Hollywood box office sales, and worldwide venture capital investments⁵.

Structure and costs of bank payment card networks

Most credit and debit cards in the United States are run on bank-controlled networks, such as MasterCard, Visa, American Express, and Discover. In 2004, Visa had a 53.6% market share of the U.S. payment card purchase volume, followed by MasterCard with 29.2%, American Express with 12.9%, and Discover with 4.3%⁶. Visa and, until recently, MasterCard are joint ventures owned by their member banks, while American Express and Discover are owned by individual banks. MasterCard and Visa have a 95% overlap in bank

1 Levitin, A., 2005, "The Antitrust Super Bowl: America's Payment Systems, No-Surcharge Rules, and the Hidden Costs of Credit," Berkeley Business Law Journal 3:1 265, 272-73
2 Humphrey, D., M. Willeson, T. Lindblomand, and G. Bergendahl, 2003, "What does it cost to make a payment?" Review of Network Economics, 2:2, 159-174
3 Association of Finance Professionals, 2005, "Retail industry forum survey:

Consumer payment choices and bank relationships, key results," May
4 Merchants' payments coalition, 2006, "Merchants welcome congressional hearings on secret fees charged by credit card companies," Press Release, Feb. 14
5 Haddad, A., 2006, "The interchange industry is bigger than . . ." Aneace's Blog, May 12
6 CardTrak, 2004, "Card Networks Q3, Dec

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membership. These networks consist of the banks that issue the cards and have the consumer relationship and banks that acquire the card transactions from merchants. Often the acquirer bank will outsource the actual processing operations. Intermediating between the issuer and the acquirer is the network association, which performs authorization, clearing, and settlement (ACS) services. In the case of American Express and Discover, the issuer, acquirer, and network association have traditionally been the same entity.

There are several components to the cost of a bank card transaction. When a consumer makes a purchase with a card, the merchant's account at the acquiring bank is credited with the purchase amount less a percentage, known as the merchant discount fee, typically in the nature of 100-200 basis points, but sometimes as much as 1200 basis points for merchants who present a particularly high risk either because of low transaction volume, limited credit history, or the nature of their business. Of the merchant discount fee, part is retained by the acquirer bank, and part is remitted to the network association. The remittance to the network association is called the interchange fee, although this term is often applied to the merchant discount rate too. The network association keeps part of this and remits some in turn to the issuing bank. The purpose of these fees is to cover the costs, particularly chargeback (returns) and fraud risks. The interchange rate is set by the network.

The fee level within this network is based on the interchange rate; the merchant discount rate will always be the interchange rate plus a percentage for the acquirer bank. Interchange rates vary not on networks' costs but on the merchant's risk profile and the level of rewards points attached to the payment card. Thus, interchange rates are lower for low-margin industries like groceries, but extremely high for adult Internet sites.

The bank card associations employ a number of contractual merchant restraints to increase card usage at the expense of other payment systems and to allow them to charge higher

interchange rates. Firstly, merchants are forbidden from imposing a surcharge for the use of credit or debit cards, even though card transactions cost merchants more than other payment systems. Secondly, merchants are required to take all credit cards bearing the card association's brand. Different types of cards of the same brand have different costs to merchants – premium rewards cards cost merchants more in interchange fees than non-rewards cards. Indeed, some card issuers account for the cost of rewards programs in their financials as reductions in their interchange income. Thirdly, merchants are forbidden from imposing a minimum charge amount, although this rule is widely flouted. Fourthly, merchants are required to accept cards at all their locations, regardless of different business models (Internet store, mainline retail, discount outlet). Finally, the card associations forbid some forms of factoring, so merchants are not always able to take advantage of a factor's superior credit-worthiness and willingness to assume payment risk to obtain a lower discount rate. Visa has additional rules that require merchants to use its proprietary payments clearance system and to purchase its payment guarantee services.

The net effect of these rules is to force merchants to charge the same price regardless of a consumer's payment method. Accordingly, consumers do not take price into account in their decision as to which payment system to use. Instead, they decide based solely on factors such as convenience, bundled rewards, image, and float. These factors tend to favor bank card transactions over other payment systems. Higher purchase volume increases the banks' income on the front-end in terms of interchange income and on the back-end in terms of more interest, late fees, and penalties. Interchange accounts for only 15% of MasterCard and Visa issuers' revenues,⁷ but are the engine that pulls consumers toward more card transactions, thus increasing interest and late fees, which account for 70% and 15% of revenues, respectively. Thus, interchange is estimated to account for one-third of card issuer revenues in the U.S.⁸

The payments industry's fee structure is designed to avoid

⁷ What's at stake in the interchange wars, The Green Sheet, Nov. 28, 2005

⁸ Patti Murphy, 2004, "ATM cards + bill pay = winning play," The Green Sheet, Issue 04:04:02, 14, 16, April 26

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commoditization because profit margins tend to be lower in commoditized industries, since competition is solely on price. Card companies attempt to avoid commoditization by diverting competition from the obvious price points – cost at point-of-sale and, for credit cards, interest rate – to bundled rewards, which are less prone to commoditization [Levitin (2005)]. No-surcharge rules mask the point-of-sale cost of payment systems to consumers. Interest rates too are masked to consumers through teaser introductory offers, often of 0%, and inscrutable card holder agreements with universal cross-default clauses make it impossible for a consumer to understand the true interest rate on a card.

From a merchant's perspective, payment services should be commoditized. Payments are the ultimate transaction cost. Merchants do not see the bundled rewards or credit card interest rates and no-surcharge rules only mask point-of-sale price to consumers, not merchants. The non-price differences to a merchant between card brands and card types are insignificant. Therefore, merchants expect competition to be on the basis of efficiency and price. Yet, it is precisely the ability to treat payment cards as commodities that the card networks' rules curtail.

Merchant strategies to minimize payment costs

For a merchant who wishes to accept payment cards, the card networks' rules are an all-or-nothing proposition. Most merchants feel like they have little choice but to accept cards because consumers like the convenience, bundled rewards, and float, all without a perceived cost. Therefore, many merchants simply absorb the cost of accepting payment cards or pass it on to their consumers, at the cost of lower sales volumes. Many merchants attempt to minimize their payments costs through various business strategies, litigation, and lobbying for regulatory intervention. The payment cost reduction business strategies can be categorized as opt-out, imitate, and opt-in.

Opt-out strategies

Some merchants simply refuse to accept payment cards. This is not a viable option for most merchants, particularly those

with e-commerce operations or large ticket items. Moreover, card usage increases the frequency and volume of transactions, which merchants do not want to surrender. Ultimately, merchants who want to stop accepting payments cards find themselves in a prisoner's dilemma – they do not want to stop accepting cards unless their competitors do, lest they be at a disadvantage. Other merchants accept payments cards but attempt to steer customers toward other payment methods by offering discounts or asking customers for a specific payment type. Card network no-surcharge rules (and state law in several states) prevent merchants from imposing a surcharge on credit or debit cards, but do not prevent them from doing the economic equivalent of offering a cash discount. Cash discounts are rarely used by merchants because they are not particularly effective in affecting consumer behavior, unlike a surcharge for credit use [Levitin (2005)].

Imitation strategies

A variant of the opt-out approach is for merchants to imitate bank payment card systems. Thus, some merchants, like JC Penney and Macy's, offer a private label credit card. Such cards are nothing more than old-fashioned store credit, accessed through a card, although sometimes a financial institution like GE Consumer Finance is involved. Private label credit cards are of limited appeal, however, because they only provide a line of credit for one merchant, and consumers loathe carrying too many cards with them. Other merchants offer pre-paid cards, which involve an extension of credit not by the merchant, but by the consumer.

Some merchants, including Wal-Mart, are working to develop a broader merchant-based payment card network, modeled on the system in Germany, where half of debit card transactions are processed on a no-interchange merchant-owned debit card system that piggybacks on interchange-free Automated Clearing House (ACH) technology⁹. A company called Debitman is attempting to develop a similar shared network, retail-issued PIN debit system in the U.S. Non-bank-controlled payment card systems are still in their infancy and face many obstacles, including the possibility that ACH

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networks will impose interchange fees of their own. In the long-run, merchant-based systems offer the most viable non-bank strategy. At present, though, non-bank payment systems have neither gained sufficient merchant nor consumer acceptance to be viable alternatives to bank payment cards.

Neither opt-out nor imitation strategies are particularly effective, because consumers want to use bank payment cards because of convenience and float. While multi-merchant non-bank payment systems hold promise for the future, they do not answer merchants' problems of increased payment costs at present.

Opt-in strategies

Other merchants have taken 'if you can't beat 'em, join 'em' approach. Some merchants co-brand with an individual bank that is a member of a card association, such as the American Airlines Visa or Wal-Mart Discover card. These merchants then split a percentage of the issuer's income from the co-branded cards. Co-branding benefits the card issuer by increasing purchase volume on the card, typically because of a bundled rewards program involving the co-branding merchant's products. The difficulty with co-branding is that consumers tend to carry a limited number of credit cards, so co-branded cards compete with each other for consumer loyalty.

Other merchants go beyond co-branding, and become banks themselves by creating an affiliated industrial loan company (ILC). ILCs are obscure banking entities that may issue credit cards, take deposits, and make loans, as well as transact business for their own account. With limited exceptions, ILCs may not offer checking accounts. ILCs are not subject to the heavy regulation of full-service commercial banks. They are subject to the safety and soundness regulations of the Federal Deposit Insurance Corporation and state banking regulators, but are not under the purview of the Federal Reserve system or the Office of the Comptroller of the Currency.

ILCs have recently received attention because Wal-Mart, America's largest retailer, has filed an application to open an

ILC in order to reduce its costs of processing payments, and the Home Depot, America's second largest retailer, is seeking regulatory approval for its acquisition of an existing ILC. With an ILC, Wal-Mart and Home Depot could process payments in-house. Moreover, they could then join MasterCard and Visa and issue their own Wal-Mart and Home Depot card MasterCard and Visa cards, rather than co-brand.

Finally, as the ultimate opt-in strategy, the biggest retailers can contemplate buying existing credit card networks. Wal-Mart, for example, has been mentioned as a possible buyer of the Discover network, which was formerly owned by Sears.

The opt-in strategies are workable, but not for all merchants. A merchant's size is the key factor in determining its payments strategy options. Co-branding is only an option for larger merchants, and only the largest merchants have undertaken acquisition of ILCs or can consider buying an existing network. Similarly, although the possibility of opt-in, imitate, and opt-out strategies gives merchants leverage in negotiating better interchange rates with banks, the extent of this leverage is determined by the size of the merchant. Wal-Mart, for example, is large enough that banks care about retaining its business. It has managed to squeeze interchange rates from the banks lower, much like it squeezes all other suppliers. A single local retailer's individual payments strategy, by contrast, is inconsequential. In some industries, merchants have tried to overcome the size problem by banding together to negotiate industry-wide interchange rates. This leaves few business strategy options for smaller merchants that are not in well-organized or franchised industries. The smaller, independent merchants have, therefore, turned to litigation and lobbying for regulatory intervention.

Merchant antitrust litigation

The credit card industry has been besieged by antitrust litigation for several years. The Department of Justice successfully sued to end MasterCard and Visa's exclusivity rules¹⁰, and American Express and Discover have since sued for damages from the rules. First Data Corporation has challenged

¹⁰ United States v. Visa U.S.A., Inc., 344 F.3d 229 (2d Cir. 2003), cert. denied, 543 U.S. 811 (2004).

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Visa's requirement that all Visa transactions be authorized, cleared, and settled on Visa's proprietary system¹¹. PSW Inc., an aggregator for Internet merchants, has sued MasterCard and Visa over the setting of chargeback fees¹². And merchants have brought a variety of antitrust litigation, most notably a suit brought by Wal-Mart, Sears, and other retailers alleging that MasterCard's and Visa's Honor All Cards rule, as applied to debit cards, was illegal. The rule required merchants that wished to accept MasterCard and Visa credit cards to also accept MasterCard and Visa offline (signature) debit cards, which are more expensive than online (PIN) debit cards. MasterCard and Visa settled for a total over U.S.\$3 billion, plus a partial rescission of the rule, the largest antitrust settlement in history.

Numerous antitrust suits have been filed relating to interchange rates¹³. These antitrust suits have several basic charges. Firstly, they contend that the member banks of MasterCard and Visa are engaged in collusive price fixing in the setting of interchange rates. Secondly, they allege unfair business practices in the form of the various merchant restraints. Thirdly, they allege the bundling and tying of different products (premium and regular credit cards; payment clearing and payment guarantee services). And, finally, they allege attempted monopolization because the merchant restraints increase the card association's market share at the expense of other payment systems. MasterCard and Visa are the suits' main targets, although American Express is a defendant in a few.

The merchant litigation and regulatory threats to the payment card associations and member banks are serious. They are the biggest and most important antitrust litigation since the government's cases against AT&T, IBM, and Microsoft. As much as U.S.\$100 billion in damages and the very survival of MasterCard and Visa is on the line¹⁴. An adverse judgment could bankrupt the card associations, and injunctive relief could prevent their future operations.

The member banks are on the line too. The merchant suits name the leading member banks as defendants, alleging a conspiracy by the banks to fix prices through the card associations. Nor will the card associations' corporate form necessarily provide the banks with protection. Visa's by-laws allow it to assess its members for its litigation losses¹⁵. MasterCard surrendered its assessment rights as part of its IPO, but the merchant litigation has claimed that this was a fraudulent conveyance in light of MasterCard's potential insolvency.

Watching the struggle play out from afar are the various American bank and competition regulators. Internationally, a movement is afoot for intense regulatory scrutiny of credit card networks. Australia led the way in 2003 with a sweeping series of ongoing reforms. These reforms banned many of the card networks merchant restraints, and interchange fees fell by nearly half. Regulatory authorities in Argentina, Brazil, the E.U., Columbia, Hungary, Israel, Mexico, New Zealand, Norway, Poland, Portugal, South Africa, Spain, Sweden, Switzerland, and the U.K. are reviewing interchange fees and related practices with an eye toward possible regulation¹⁶. In the United States, there is no government agency with authority to regulate interchange rates or card association rules, although the Department of Justice could bring litigation. Even if merchant-initiated litigation fails, regulatory changes or government-initiated litigation could accomplish similar ends.

Bank reactions

The bank card associations and their member banks have reacted to the litigation threat in different ways. Visa U.S.A. has reorganized its corporate governance structure to deflect collusive price fixing charges. Its new board has increased the number of independent directors, who will have sole authority to set interchange rates¹⁷. Rule-making, which would cover merchant restraints, however, continues to be the purview of the full board, where the banks retain a significant presence, and other issues are reserved solely for the bank directors¹⁸.

11 Visa U.S.A., Inc. v. First Data Corp., 2005 U.S. Dist. LEXIS 34281 (N.D. Cal. Aug. 16, 2005).

12 PSW, Inc., 2004, "PSW, Inc. files antitrust lawsuit against MasterCard and Visa," Press Release, Aug. 16

13 Payment card interchange fee & merchant discount, Antitrust Litigation, 398 F. Supp. 2d 1356 (J.P.M.L. 2005)

14 International Cards & Payments Council, 2006, "US cards industry lawsuits cause international concern," Press Release, Jan. 23

15 Breitkopf, D., and H. M. Jalili, 2006, "Visa advances, but . . . A lawsuit looms; small issuers gain a seat," American Banker, May 1

16 MasterCard 10-Q, Mar. 31, 2006

Manfred, L. 2005, "The Kansas City FED conference: Another skirmish in the interchange controversy," First Annapolis Navigator, May

Dagan, R, 2006, "Chevrot ha-bituach yishaveiku kartisei ashrai (Insurance companies will market credit cards)," Haaretz, May 11 (Israel)

17 Breitkopf, D., and I. Lindenmayer, 2006, "Visa reorganization vote near; where does Bank of America sit?" American Banker, Apr. 27

18 Nilson Report, 2005, "Visa's 1,700 principal members vote proportional to their Visa USA sales volume," 845, Nov

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Visa's reorganization appears to be aimed solely at blunting claims of interbank collusion in interchange rate setting.

MasterCard has gone further and has undertaken an IPO whose unusual deal structure is driven by antitrust concerns, as the banks attempt to limit their liability by limiting their control over the network. The MasterCard IPO will result in a corporation with three classes of stock: publicly-held Class A shares with a 49% economic interest and an 83% voting interest; bank-held non-voting class B shares with a 41% economic interest; and bank-held Class M shares that have veto power over major transactions. A new charitable foundation will receive stock with 21 year alienation restrictions that constitutes a 10% economic interest and 17% voting interest. The new board will consist of eight independent, publicly elected directors, the CEO, and three bank-elected directors. Additionally, European issues will be controlled by a special board elected by MasterCard's European bank members that can be overridden only by a 75% majority vote of the regular board.

The MasterCard IPO is a hedging strategy. The banks will retain an ownership interest in MasterCard that allows them to receive a large share of its profits and veto power over major transactions. They have also insured against major institutional change through the charitable foundation's stock alienation restrictions. The lockup restricts new shareholders' powers and limits the likelihood of major changes at MasterCard by putting a large chunk of the stock in the hands of a long-term shareholder. Finally, no party is allowed to acquire more than 15% of the public corporation. Thus, the banks have kept functional control over the association, but brought in outside investors to share the risk. Meanwhile, the banks have retained their stake in Visa, the larger, more profitable card association, with superior market position for debit cards, although there is speculation that a Visa IPO could follow if MasterCard's is successful¹⁹.

Will these plans work? Yes and no. The restructuring of Visa's board and MasterCard's ownership will blunt the merchants'

attack on the collusive setting of the interchange rates in terms of prospective, injunctive relief. From a legal standpoint it should have no effect on a determination of liability for past behavior, damages for which could be ruinous. Yet, the restructurings might even blunt liability for past behavior because MasterCard and Visa will appear to have defanged themselves.

Neither association's plan addresses the antitrust suit complaints about merchant restraints that insulate the interchange rate, no matter how it is set, from the pressures of the free market. MasterCard and Visa have focused on the graver threat, but not the more likely threat. A successful attack on the collusive setting of the interchange rate would be the death knell for the card associations, because it would take away the networks' ability to set their services' prices. For that very reason, a court would think twice about ruling against MasterCard and Visa. It is only with great caution that a court would grant a decisive ruling against such a cornerstone of the American economy.

In the case of merchant restraints, though, a court would feel no such trepidation. MasterCard and Visa can survive without the merchant restraints, as shown by MasterCard's unilateral rescission of its no-surcharge rule in Europe and the continuing (although lower) profitability of MasterCard and Visa in Australia after the Reserve Bank of Australia banned several merchant restraints. Accordingly, the suits aimed at merchant restraints have a better chance of succeeding than those that focus on the collusive setting of interchange rates. The card associations' restructurings provide no protection against merchant restraint suits.

Merchant-initiated antitrust litigation is ultimately a business strategy to reduce payment acceptance costs. Merchants' goal is not the elimination of the payment cards industry, just a lowering of payment costs. Litigation is a leverage point that opens the door to negotiated settlements. If MasterCard and Visa can defeat the life-or-death interchange rate setting attacks, they will have room to settle the merchant restraint

¹⁹ Kelleher, J. B., 2005, "Visa can sit out MasterCard's IPO for a while," Reuters, Dec. 9

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suits because the restraints are not vital to the viability of the card associations, just their level of profitability and market share. A settlement might be expensive, but it is also an opportunity for the banks to co-opt merchants into the card associations. Visa has already made a move in that direction by appointing a board member of one of the merchants that has initiated litigation as an independent director. MasterCard's IPO could also open the door for merchant involvement in the card associations. There is nothing that prevents Wal-Mart, Microsoft, Google, or Verizon from purchasing a large stake in MasterCard as part of the IPO, as could individual banks looking to increase their influence in the association.

Does any of this matter?

Do the big banks need the card associations?

The struggle between merchants and banks over payments costs has spilled over into business practices, litigation, corporate governance, and corporate restructuring. Does any of it really matter in the long run? Other developments in the banking industry, the changing business landscape, and the emergence of new payment technologies and business models might well make the energy spent on the interchange struggle all for naught.

Changes in the card industry mean that the interests of individual banks, particularly large banks, are no longer aligned with the card networks. The Gramm-Leach-Bliley Act of 1999 allowed for greater affiliation between different types of financial institutions and facilitated the establishment of banks with national reach and brand recognition. The large banks are eager to exploit their new brand value and are reluctant to put the card associations' brands ahead of their own.

There has also been tremendous consolidation in both the issuer and acquirer markets, which has not only contributed to brand building but also positioned some banks to be able to break off from MasterCard and Visa and set up independent payment networks. Currently five banks – Bank of America, JPMorgan Chase, Citigroup, Washington Mutual,

and Capital One – account for 65% percentage of card issuance, and the top ten issuers account for 85%, as compared to 36% for the top five banks and 54% for the top ten banks in 1995²⁰. A similar story has emerged on the acquirer side. First Data Corporation is involved with over half of the nation's card transactions, both directly and through joint ventures and alliances, while Bank of America accounts for another seventeen percent of the acquirer market²¹.

The development of national bank brands and the consolidation in issuer and acquirer markets has set the stage for larger banks to desert MasterCard and Visa and set up their own, independent, 'on us' payment networks. The groundwork for bank desertions has also been laid by antitrust litigation by the Department of Justice that forced MasterCard and Visa to rescind their exclusivity rules²². These rules prevented issuers of MasterCard and Visa cards from issuing American Express or Discover cards. The end of exclusivity means banks are not tied to dealing with one card network, thus reducing bank loyalty to particular networks. MasterCard's IPO will further reduce bank incentives to subordinate their brand to the card associations. Accordingly, if the card associations' litigation outlook is unpromising, banks will desert them for greener pastures.

Already Bank of America, FDC, and JPMorgan Chase have positioned themselves to become independent networks on the model of American Express and Discover. In 2004, Bank of America purchased National Processing Inc., the nation's second largest acquirer. It followed up this acquisition by purchasing MBNA, the third largest credit card issuer. These acquisitions, which followed Bank of America's 2003 purchase of Fleet Bank, another large issuer, have resulted in Bank of America becoming the largest card issuer and the second largest acquirer in the country, which gives it the access to both consumers and merchants necessary to create an independent network. If Bank of America were to split off from MasterCard and Visa, it would have a 20.2% market share in terms of credit card outstandings, far ahead of American Express, at 9.8%, and Discover, at 6%²³. It would

20 Nilson Report, 2005, Issue 827, Feb

21 Nilson Report, 2005, Issue 831, Apr

22 United States v. Visa U.S.A., Inc., 344 F.3d 229 (2d Cir. 2003), cert. denied, Visa U.S.A., Inc. v. United States, 543 U.S. 811 (2004), Mastercard Int'l, Inc. v. United States, 543 U.S. 81 (2004).

23 Nilson Report, 2006, Issue 850, Feb

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also deprive MasterCard and Visa of seven and twenty percent of their business, respectively [Bauerlein (2006)]²⁴. There has also been speculation of a merger between Bank of America and Morgan Stanley. Such a merger would not only give Bank of America the major investment banking presence it lacks, but also control of Discover.

JPMorgan Chase has put itself in a similar position to Bank of America. It has leading presences on the issuer and acquirer sides. JPMorgan Chase is the second largest issuer in the country and holds a majority interest in the nation's largest acquirer, Chase Paymentech Solutions, a joint venture with FDC. Besides its minority interest in Chase Paymentech Solutions, FDC maintains other significant acquirer and processing operations. FDC owns the STAR debit card network, and although it does not have a credit card issuer presence, it is rumored to be another possible purchaser of Discover. FDC has also been developing a variety of non-card based payment systems, including a partnership with Wal-Mart for a real-time check verification system. Finally, if FDC wins its litigation challenge to Visa's requirement that all transactions be authorized, cleared, and processed through its proprietary system, FDC could easily increase its lower cost 'on-us' transaction capability and set itself up as a rival ACS system.

If major players like Bank of America, JPMorgan, and FDC jump ship, the question will become what the other large banks will do. Will Citibank, Washington Mutual, Wells Fargo, HSBC, Wachovia, and Capital One remain in MasterCard and Visa, or will they too seek to set up as independent networks? There will certainly be a temptation for the big boys to set up as independents, if only for prestige and control. Capital One's 2005 purchase of Hibernia, a sizeable retail bank, and its reported interest in purchasing another retail bank indicate that it too may be setting itself up to have the merchant and consumer relationships necessary to become an independent network.

On the other hand, there is tremendous brand value to MasterCard and Visa, and, at least in the case of Bank of

America, the profits from creating an independent network are relatively small [Bauerlein (2006)]. The answer may depend, in part, on the manner in which the antitrust litigation proceeds. If the big banks desert MasterCard and Visa, it will increase the relative power of the smaller banks, as well as the relative power of any big bank that remains in these networks. Already, Bank of America has lost its Visa board seat in Visa's board reshuffling, while small issuers have gained a seat, and the MasterCard IPO is an opportunity for banks to increase their relative control beyond their current sales volume-related control share. On the other hand, small banks will more likely become acquisition targets of big banks with independent networks that seek to expand their networks' reach. Although new, independent card networks could impose the same merchant restraints as the existing networks, their existence would reduce the market power of MasterCard and Visa, which would in turn help the associations in the antitrust litigation.

Can the bank card associations offer more than financial services?

The energy spent on the struggle over payment costs may not matter because the scope of the bank-merchant relationship could change to allow new pricing parameters and a mutually beneficial relationship. The expansion of electronic payments has created the potential for banks to provide more than financial services. With the growth of electronic payments, banks are poised to provide information services to merchants as well.

Consumer data has tremendous value for merchants. Properly analyzed, it can be a highly effective marketing tool. Paper payments do not readily lend themselves to data mining, but electronic, card-based payments do. To capitalize on payments data, however, banks and merchants must adopt cooperative strategies. The banks are in the best position to capture and mine the data, but the data is primarily valuable to the merchants. This situation creates an opportunity for banks to expand their supporting roles for merchants. Banks could provide not only payment services, but also information

²⁴ Bauerlein, V., 2006, "Bank of America might create credit-card processing network," Wall Street Journal, Apr. 26, B2;
Mildenberg, D., 2006, "Bank of America ponders card to rival giants," Charlotte Business Journal, April 14

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services via targeted advertisements on billing statements, direct mail campaigns, or targeted rewards offers. When banks and merchants partner to analyze consumer data, as they already do in co-branding and private label credit card arrangements, they can produce highly effective marketing campaigns that increase advertising value. The question is whether banks can successfully expand this type of partnership to general purpose credit cards. Visa looks to be moving in this direction through the Visa Incentive Network, a program that allows more tailored discounts and promotions to cardholders based on cardholder behavior.

To be sure, there are numerous business and regulatory challenges, particularly data privacy concerns, that banks will have to address if they are to move into the information services area. Nonetheless, the inclusion of new, bundled financial and information services would reshuffle pricing in the merchant-bank relationship. Increasing the size of the pie to be divided among merchants and banks could defuse the merchant-bank struggle, at least temporarily.

Will technological developments mean merchants have more options?

Perhaps most crucially, technological developments are likely to recast the merchant-bank dynamic. Speculation on the state of payment technology in five years, much less a decade, is little more than augury, but it is hardly farfetched to envision ACH networks being seamlessly integrated with PDAs, i-Pods, and cellular phones. The number of ACH transactions has been rapidly growing and wireless technology allows access to most consumer transactions.

Going hand-in-hand with the development of new payments technology is the development of new payments competitors from the non-bank sector. Aggregating services like Peppercoin allow merchants to reduce the flat-fee portion of interchange rates by aggregating several payments from a single consumer into one larger one. Such services make small ticket merchants more amenable to card transactions. Internet-based payment systems like AliBaba, 2Checkout,

and e-Bay-owned PayPal provide payment services for merchants without merchant banking accounts, and Google is developing a payment system. Even within the banking world, companies like FDC are developing technologies for real-time debit and check or ACH transactions that do not depend on the existence of the card networks. Microsoft could easily join the fray, while telecommunication and cable networks are in some ways well-situated for entering the payments world, as they already have portal access to merchants and consumers and national data transfer and processing networks.

The case of PayPal

The example of PayPal illustrates how non-bank parties are using technology to step into the merchant-bank struggle and offer improved packages of services for both consumers and merchants at a lower cost than the traditional merchant-bank-consumer relationship. PayPal is not a bank. It began as an online payment service that allowed consumers to make transactions using PayPal accounts. That is, the merchant was accepting PayPal's credit risk, not the consumers, and merchants did not need to be equipped to accept payment cards to accept PayPal payments. Since then, PayPal has expanded to offer a full array of merchant payment services in all locales.

PayPal offers merchants a variety of services from lines of credit (through GE Money Bank) to accounting. At its core, though, it is a credit arbitrage operation. PayPal arbitrages its own credit risk to offer high credit risk merchants lower discount rates than they could otherwise obtain.

The model of a PayPal transaction is that when a consumer makes a purchase from a PayPal serviced merchant, the consumer actually pays PayPal, who then relays the payment on the merchant for a fee. PayPal is not an acquirer. Rather, it operates like a factor, purchasing receivables and collecting them itself, through acquirer banks. Unlike many factoring arrangements, though, PayPal commits to purchase the receivables as an output contract.

The merchant-bank struggle for control of payment systems

Transactions on PayPal can be made in a number of forms, including payment cards. The consumer never sees that PayPal is involved, unless payment is made with a PayPal account, and the merchant never sees the consumer's payment information. PayPal's intermediary status creates a level of financial privacy and security that makes it an attractive system for many consumers, although there are issues regarding what law governs consumers' rights in PayPal transactions. Merchants are willing to use the service because PayPal's fees are lower than that they would pay in a traditional acquirer relationship.

By allowing PayPal to stand between them and payment card networks, merchants are also able to hedge the costs of high and low cost payment systems and of premium and regular payment cards. Rather than paying higher rates for transactions on American Express cards than on MasterCard or on Signature Rewards Visa cards than on regular Visa cards, merchants pay PayPal the same rate for all cards. In this manner, PayPal allows merchants to circumvent the impact of the card associations' requirements that the merchants accept all cards if they accept any and that they accept them at all locations.

The first key to PayPal's business model is that it presents a lower credit risk than the merchants its services. PayPal has an extensive credit history, some of the lowest fraud rates in the industry, and an enormous sales volume. PayPal's low credit risk allows its acquirer, Wells Fargo, to offer it an extremely favorable discount rate. The second key to PayPal's business model is its funding mix. PayPal lets consumers use a wide array of payment methods, some of which have very low cost to PayPal and some of which have high cost. PayPal, however, charges merchants the same fee regardless of the means of transaction. PayPal's funding mix allows it to accept lower profit margins on credit card transactions because of the higher profits it makes on ACH and bank account transactions.

How PayPal's move into brick-and-mortar processing work is an open question. PayPal offers an option for mer-

chants to receive non-Internet payments via a virtual terminal, for which it charges a small monthly fee. It may well be that PayPal remains best suited for e-commerce solutions for small businesses rather than for the general marketplace. To the extent that PayPal attempts to expand its brick-and-mortar presence or the banks eye the e-commerce market, PayPal will come into more direct competition with banks. Even if PayPal is unable to expand effectively beyond e-commerce payments, it has snatched away a developing sector of the payments economy from the banks by offering merchants a payments solution at a lower cost than the traditional acquirer relationships. The merchant-bank struggle over control is ultimately about cost, and PayPal demonstrates that there is room for a restructuring of payments costs through innovative business models like credit risk arbitrage through factoring.

Innovation and acquisition of innovation by the card networks

Of course, the card networks themselves develop new technology in-house and buy-out competitors and promising start-ups. The card networks' have significant financial ability to purchase potential rivals and thus control the development of technology. If litigation costs drain the card networks' resources, it will be harder for them to compete on the technology front.

A major advantage the bank networks have against new would-be rivals is the high costs of creating a dual-sided network. It is not enough to sign up merchants or consumers. The participation of both is needed to make a successful network, and merchants are reluctant to sink costs into participating in a new network if consumers are not demanding to use it and vice-versa. If technology makes the interchange/clearing house function of the card networks less vital or if it allows for cheaper formation of dual-sided consumer and merchant networks (as the Internet already promises to do), then the card networks will lose much of their advantage. Instead, they will be forced to compete with a broader field of payment options and accept smaller profit margins.

The merchant-bank struggle for control of payment systems

This is not to say that the card networks will not still have huge advantages. They have existing business relationships with merchants and consumers, and the trade cachet of their names is of tremendous value in getting the market to accept a new payments technology. Still, technological developments might ultimately present perhaps the greatest threat to banks' control over payment networks.

Innovation has long been a problem for payment card companies. There have been relatively little changes in cards over the past quarter century. Some improved security features have appeared, and PIN-based debit cards have emerged, to be sure. The essential concept and technology has remained the same, however, since 1979, when electronic dial-up terminals and magnetic striped cards that made payment cards an electronic payment system and offered noticeably decreased transaction time²⁵. The card companies have been trying to change this of late, with the introduction of contactless cards that decrease transaction time and increase spending. It is unlikely that contactless cards will be sufficient, though, for merchants to feel that they are getting enough new value out of card acceptance to justify increased card acceptance costs. Unless MasterCard and Visa can offer merchants increased payments value, either through technology or through bundled information services, their businesses will start to look a lot like landline telephone companies that have clung on to a core business, but are becoming obsolescent in the face cellular and VoIP technology.

Conclusion

Antitrust suits present a significant short-term threat to MasterCard and Visa and are spurring the reshaping of the U.S. payments industry. In the longer term, however, the antitrust threat may not particularly matter, as the growth of national bank brands has created the possibility of large banks splitting off and forming their own independent payment networks, while developments in payments technology and Internet commerce have created a competitive threat to MasterCard and Visa. The ultimate outcomes of these developments are uncertain, but one thing is not: the payments industry will look very different in a decade.