

Joint Venture Payment Networks and Public Policy

by David Balto and James McAndrews

Introduction

Joint venture agreements among firms are common among payment systems. The bank credit card associations, automated teller machine (ATM) and point of sale (POS) debit card networks, check clearing houses, and several electronic stored value systems are all arranged as joint ventures. Public policies toward joint ventures encompass antitrust policies and various state laws and regulations that affect these entities in various ways.

The public policy goal of promoting economic efficiency confronts a dilemma in joint ventures (as well as other vertical relationships such as franchising): policies that seem to inhibit competition among members may be procompetitive (or efficiency enhancing in some other way) when viewed as systemwide policies. It is always difficult to disentangle the two threads that run through most joint venture policies that regulate the behavior of members, vertical control policies that may be efficiency enhancing and horizontal control policies that may be intended to enhance profits of members at the expense of efficiency.

The government may regulate payment joint ventures for a number of purposes including protecting financial soundness, providing adequate consumer protection, or protecting competition. Yet the government regulation may be by individual states, federal agencies, or both. Government agencies often attempt to "regulate" the pricing and competition policies of the joint venture network

In this article we closely examine two examples that illustrate the dilemma of government regulation and joint venture policies: ATM sharing rules and surcharges.

Joint Venture Policies

A payment joint venture typically is organized to provide a crucial ingredient to the payment production process: communication, clearing, and settlement of on-others, or interchange, transactions.¹ An ATM network, for example, provides the communication and routing services required to authorize customer transactions at shared ATM and POS devices. Furthermore, it typically arranges for the clearing and settlement of the resulting interbank payments. In addition to these tasks, the network will manage the brand by setting various policies; examples include the rules concerning signage and use of trademarks, and rules concerning the routing of transactions. It will also set an interchange fee that will be

paid from one participant to another for the services provided by the participants through the network. Finally, it also establishes policies on whether a participant can belong to more than one network, i.e., exclusivity policies, and on whether a participant is required to do a minimum level of business with the network.

The activities and policies of such a network affect two dimensions of the participating firms' activities. In providing communications services the network is acting as an upstream seller of an input to the downstream participants, and hence affecting the "vertical" dimension of the firms' activities. At the same time, the rules on the use of the trademark and on routing affect the "horizontal" dimension of the firms' activities, by limiting a participating firm's choices in promoting its own role in the provision of the network services. This dimension is also called "intrasystem competition."

Both dimensions of the network's policies affect the viability and attractiveness of the network itself. In other words, both the prices of the network's services, and the routing and exclusivity policies of the network, for example, influence the conditions for entry into the market by an alternate network. Hence, a network's vertical and horizontal effects influence the competitive stance of the network itself (that is, influence the horizontal competition in the market for the network good; this is also known as intersystem competition).

Government Regulation and ATMs

One important issue faced during the birth of ATM networks was whether there would be a federal or state regulatory regime, or both. In the 1970s ATMs had existed for about a decade and there was tremendous discussion of the impact of the new technology and other forms of electronic transactions on banking and consumers. In response, Congress created the National Commission on

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Electronic Funds Transfer (NCEFT) in 1974 and charged it with responsibility to advise what form of regulation, if any, was necessary to assure a safe, fair, and predictable world of EFT. Many of the issues that are prominent in the debate over electronic commerce today, e.g., consumer protection, liability limits, privacy, were addressed by the NCEFT.

Based on the recommendations of the NCEFT, Congress enacted the Electronic Fund Transfer Act in 1978.² Some members of the NCEFT and some members of Congress believed that federal regulation was unnecessary because the states were beginning to regulate. (At the time, there was a patchwork quilt of state statutes). Others believed that only federal regulation was appropriate and that the state laws should be preempted. Neither view was adopted.

While Congress recognized that federal preemption would foster the development of national standards and reduce the costs of compliance, it rejected this approach. Rather, state laws are not preempted except to the extent that they are inconsistent with federal statute. A state law is not inconsistent with the EFT Act if the protection it affords is more stringent than that provided in the EFT Act.³

Although Congress' goal was laudatory, in practice state regulation of ATM networks has resulted in a regulatory approach that requires companies to know and comply with disparate regulatory regimes, which often may be in conflict. In addition, firms must evaluate whether the state regulation is more "protective" than [federal] regulation. A lack of consumer understanding of the protections afforded by state and federal law can result in less vigorous consumer enforcement and thus, less effective protections. In addition, firms which have to master and comply with a multiplicity of requirements will naturally face higher compliance costs, and these costs usually mean higher consumer prices.⁴

Beyond these costs, in some cases, state regulation of ATMs has strongly influenced network policies well beyond any particular state's border. Two examples are state laws requiring ATM sharing and prohibiting network rules that restricted surcharges.

ATM Sharing Laws

When ATMs were first deployed, many states tried to ensure access to ATM networks by enacting "state sharing" statutes, which required an ATM owner to share its ATM with any other bank. The question of whether to require sharing was one of the most contentious and divisive issues addressed by the NCEFT.⁵ The Department of Justice argued that mandatory sharing would result in free riding: if the creator of an ATM network knew it would have to share ownership with any bank that wanted to join after the network succeeded, it might be deterred from creating the network in the first place.

Moreover, mandatory sharing would lead to the formation of monopoly networks.⁶

Countering this concern was a populist view that the benefits of ATMs or other forms of electronic commerce would be acquired only by the largest banks and that those banks would use the new networks to drive their smaller firms out of business. The view was that ATM networks were essential facilities, even at their creation. Thus, in order to assure a level playing field between smaller and larger firms the states compelled ATM networks to provide access to all.

In essence, the debate was between two views of network competition:

- (1) ATM networks should be treated like public utilities with open access obligations and some form of regulation, or
- (2) a competing network model with numerous networks competing in a lightly or wholly nonregulated environment.

The NCEFT spent a great deal of time considering whether these networks were natural monopolies and should be regulated. It ultimately concluded that they were not — the economies of scale were such that individual markets would be able to support several competing networks. Economic studies had suggested that there could be significant network competition.⁷ The NCEFT observed that mandatory sharing "would inevitably result in fewer competitors. . . . Maximum competition usually spells rapid technological improvement and lower prices to consumers."⁸ Thus, the Commission expressly rejected any sharing requirement.

The NCEFT recommended that sharing should not be compelled and that Congress enact legislation to preempt the state sharing statutes, but the legislation was not enacted.⁹ Ultimately, approximately 30 states enacted sharing statutes. These statutes require "fair, equitable, and nondiscriminatory" access to ATMs.

The Justice Department continued to advocate against sharing, but its efforts were not successful. Its prediction about the anticompetitive effects of these laws seems correct. More recent economic analysis of state sharing laws suggest that mandatory sharing has not served the interests of consumers. In those states with mandatory sharing laws, output in terms of ATM deployment and card usage is less than in those states that do not require sharing.¹⁰ One state that imposes mandatory sharing, Iowa, also imposes particularly detailed requirements on ATM networks operating in its state that effectively preclude all but one network from doing business there.¹¹ This is a good example of the trade-off involved: to require absolute sharing may result in only one network, and eliminate any intersystem competition. In general, to the extent that these laws effectively require a network to admit any bank as a member, they dampened the opportunity for network competition.

In some respects, however, one could argue that although sharing diminished competition at the "network" level it enhanced competition between banks for retail deposits in other respects. Shared ATM networks actually enhanced competition between banks by allowing small and large banks alike to share in a large number of ATM locations. In essence, a shared ATM network creates sort of a level playing field enabling both small and large institutions to compete on other retail factors such as interest rates, late fees, and other fees.

ATM Surcharges

A. Background

ATM services entail two types of fees: wholesale fees, which are paid by the banks to other banks or to the network, and retail fees, which are paid by the person conducting the transaction to his or her bank or to the ATM owner.

Wholesale fees are set by ATM networks and comprise the switch fee and the interchange fee (most networks also charge a wholesale membership fee, which is not transaction-based). Switch fees cover the costs of routing transactions through the network's computer switching system. The interchange fee is paid by the cardholder's bank to the ATM owner to compensate the owner for the costs of deploying and servicing the ATM. In addition to compensating ATM owners, the networkwide interchange fee is designed to avoid costly negotiations among banks concerning the appropriate fee that the ATM owner should charge to allow a bank's cardholders to use that owner's ATMs.¹² By fixing a single price for all interchange transactions among its many members, a network avoids numerous interbank negotiations.

The retail fees of an ATM transaction are set by the cardholder's bank and by the ATM owner. When a cardholder uses an ATM that is not owned by his or her bank, the cardholder's bank may charge a user, or "foreign" fee to cover the interchange fee that the cardholder's bank must pay to the ATM owner.

Surcharges also fall under the category of retail fees. Banks that own ATMs typically surcharge other banks' depositors rather than their own account holders; non-bank ATM owners typically charge all customers.

ATM networks (that is, the joint venture owners of the network) themselves prohibited surcharges (direct fees charged by the ATM owner for use of an ATM) on the grounds of predictability and goodwill. The networks and their members were aware that the prohibition probably came at the expense of more ATMs, but the decision of ATM network owner groups was to make the judgment in favor of the first two goals at the expense of the third. This is a legitimate vertical concern similar to retail price maintenance agreements. At the same time, a prohibition has the horizontal effect of reducing the incentives for

entry into the provision of ATMs given the incumbents role as deposit-taking institutions.

One economic effect of not allowing ATM surcharges in a network is to reduce a "double margin" in the pricing of ATM transactions. Two economists have recently considered a model of differentiated ATM locations, with consumers having preferred locations.¹³ Similarly, for the card-issuing banks. An ATM transaction consists of the use of a card and a machine, which are perfect complements. Different banks are in competition with one another, and different ATMs compete with one another. They consider different ownership and pricing alternatives for a network consisting of these competing complements. They find that independent ownership of shared network services gives rise to a problem of double marginalization in the pricing of the two halves of the transaction.

Two possible solutions were considered for this problem. One is parallel vertical ownership, which partially internalizes the vertical externality. Another is to limit pricing to an interchange fee set at marginal cost. Finally, they consider surcharging, and find that the interchange fee pricing system reduces prices relative to surcharges, by limiting the double margin. Hence, setting an interchange fee and prohibiting surcharges can have a legitimate vertical efficiency effect: the double margin is reduced between the bank and the ATM owner and so prices to consumers are lower than in the case in which surcharges are allowed.

Some economists suggest that surcharge prohibitions have primarily a horizontal effect.¹⁴ They argue that if entry is allowed in ATM locations, then surcharges will spur the deployment of ATMs in places that interchange fees alone will not support. Furthermore, nonbank ownership of ATMs is likely to grow with surcharging, because banks pricing incentives are guided by maximizing their profits generated by their customers. As a result, they internalize the vertical externality to the degree that their customers are expected to visit an ATM. Nonbanks' pricing incentives are limited to price to maximize the profit of the machine, and better exploit the demand of a particular location.

B. The Financial Interchange Arbitration

The use of an interchange fee structure and rules prohibiting additional charges worked adequately so long as a network was effectively in balance. Some institutions, for example, those that deploy a large number of ATMs, receive more interchange than they pay — they are known as "net acquirers." Those institutions that pay more interchange than they receive are known as "net issuers." For the first decade or so, the interchange fee structure was fairly uncontroversial because networks would be in balance in two respects. First, almost all banks found acquiring and issuance almost in balance and, within a network, there was no great difference between net acquirers and net issuers.

The ability to self-regulate ATM fees served an important purpose. Since the product of a shared ATM network was in its infancy, the networks needed to control consumer fees. In effect, the networks were marketing a new product "easy access to cash." If individual banks could assess additional charges it would be difficult for the product to gain consumer acceptance. Regulating ATM interchange fees also had a direct impact on ATM deployment. The greater the level of interchange fees, the higher the incentive for banks to deploy ATMs.

The fragile balance of regulating consumer pricing began to dissolve in Texas when one member of the PULSE ATM network, First Texas Savings Association, unlike the remaining members of the joint venture, decided to deploy a large number of off-premise ATMs, at non-bank locations such as convenience stores. The PULSE interchange fee was set on a cost basis and the deployment of such a large number of ATMs would significantly increase the average costs and hence the level of the fees. In response, the PULSE board of directors voted to decrease the off-premise interchange fee. First Texas invoked an arbitration provision challenging the reduction as illegal price fixing in violation of the antitrust laws.¹⁵ First Texas alleged that the interchange fee restricted output by limiting compensation to ATM owners.

First Texas presented two arguments. First, it claimed that *any* setting of interchange fees (whatever the level) was a horizontal price-fixing agreement among competing buyers and sellers which unreasonably restrained trade in violation of the antitrust laws. Next, it argued that, even if collective fee-setting was lawful, PULSE's planned reduction in the interchange fee for off-premise ATMs was illegal price fixing because the fee schedule was not based on neutral and objective criteria, but rather was part of a "buyers' cartel" which favored the majority of PULSE's members who were "net issuers" of ATM transactions.

The centerpiece of the First Texas argument was a "free market" proposal under which all interchange fees would be eliminated and the ATM owner would charge consumers directly for use of its ATMs by electronically debiting the cardholder's account. With compensation to the ATM owner limited to the interchange fee, First Texas contended, output (in terms of the number of ATMs) was restricted, and consumers did not receive the full range of ATM availability, quality, and convenience that would be achievable in a "free market" environment.¹⁶

PULSE defended the interchange fee as reasonably necessary for the efficient functioning of the network. A fixed interchange fee avoided the inefficiency and impracticality of separate bilateral agreements between the network's many members. PULSE also identified a number of external costs that would be imposed on the network and its membership if the "free market" proposal were adopted, including member defections, possible price gouging, customer confusion, substantial technical

conversion costs, and the need for additional customer education.

Instead of weighing the likely anticompetitive effects of PULSE's interchange fees against the likely adverse effects of the "free market" system proposed by First Texas, the arbitrator relied on PULSE's concession that allowing ATM owners to impose surcharges or provide rebates (which were found to be procompetitive) would involve far less costly externalities. He therefore concluded that PULSE's system of setting interchange fees would violate the antitrust laws unless PULSE adopted the "less restrictive alternative" of allowing ATM owners to impose surcharges or grant rebates and, further, settled these surcharges and rebates electronically through the PULSE system. The arbitrator agreed in part with First Texas' argument: "Simply put, the ATM owner is in the best position to identify and respond to consumer demand. Consumer choice is generally enhanced through a maximization of price/quality/convenience options." The arbitrator stated: "where the benefits of a competitive market can be obtained without a substantial impairment of efficiency, the restraint cannot be viewed as reasonable."¹⁷ PULSE amended its rules and surcharges have existed since 1989.

Hence, in the PULSE arbitration the focus was on the horizontal regulation of competition. It was argued that interchange fees were being used to direct system benefits to issuers, and to limit entry. On the other hand, surcharges were argued to be efficiency enhancing and provide the correct incentives for entry of ATMs.

The arbitrator and experts did not foresee the discriminatory access fees now commonly in place in which a bank's own depositors' fees are waived, while other banks' customers are charged. As one economist points out, this discriminatory pricing has an additional efficiency cost.¹⁸ By setting surcharges in a discriminatory fashion, network members can find themselves in a prisoners' dilemma in which both they and their customers are worse off (the customers avoid interchange transactions, and the banks profits fall relative to the no-surcharge case; at the same time, no bank profits by eliminating surcharges unilaterally).

Hence surcharges have an efficiency cost from the vertical control perspective. The network trademark no longer is as informative about the cost at which service will be obtained. Furthermore the creation of these pecuniary (within bank-owned ATM network) externalities within the shared network have the effect of creating subnetworks which reduces the value of the network itself.¹⁹ A study by the Federal Reserve Bank of New York found that interchange transactions fell for the first time in 1997 after the widespread adoption of surcharges, even while the number of ATMs and off-premises ATMs has grown at a faster pace in 1997.²⁰ Hence, surcharges come at a high cost when viewed from the vertical point of view.

C. The PLUS Litigation and State Regulation

The dispute between some members of networks that desired to surcharge and those that wanted the "no hassle cash" product continued after the PULSE litigation, not only in court, but before state legislatures. This was due to two factors. First, the antitrust laws have never been entirely clear on pricing by joint ventures and often treat price setting by horizontal competitors with intense scrutiny. The arbitrator's decision in *Financial Interchange* only increased the likelihood on antitrust litigation. Second, because the EFTA failed to preempt state regulation, pro-surcharge advocates (especially those which could explain that surcharges would basically fall on tourists) had a friendly "home court" to stop joint ventures from preventing surcharges.

ATM networks continued to attempt to regulate ATM surcharges even after the PULSE decision. Realizing the difficulty of antitrust disputes and the potential cost of antitrust litigation many networks chose a more subtle means of regulating surcharges. Since the national PLUS network prohibited surcharges, the regional networks adopted "nondiscrimination" rules which provided that an ATM owner could surcharge only if it surcharged all ATM networks equally.²¹ In a certain sense, this strategy was prudent for two reasons. First, since PLUS was owned by VISA, it could afford the costs of litigation far better than the non-profit regional networks. Second, PLUS was a far less attractive defendant. PLUS was relatively small in terms of the number of transactions and thus it was far more difficult that an antitrust plaintiff could demonstrate that it possessed market power. In addition, PLUS card holders would often be travelling away from home and might be more likely to be subject to opportunistic behavior (price gouging) by ATM owners.

These issues came to a head less than a year after the PULSE litigation was resolved. Valley Bank of Nevada sought to assess surcharges at casino ATMs. It had deployed some ATMs at casinos in Los Vegas, and saw the opportunity for a new profit center (especially since the desire of gamblers for money is rather inelastic). Valley filed suit in federal court charging that the PLUS antisurcharge policy was illegal price fixing.²² Since a successful antitrust plaintiff can receive treble damages, the litigation offered significant revenue opportunities for Valley Bank and a substantial threat to a thinly capitalized venture like PLUS.

Valley, however, was not content to fight this battle out on the field of antitrust before a federal judge. That would have required a judge to determine if the surcharge prohibition ultimately harmed competition and consumers. Three reasons suggest the surcharge prohibition probably would have been upheld: it resulted in lower prices, PLUS did not have a large market share, and PLUS cardholders, who are typically travellers far from home, needed to be protected from price gouging.²³

Instead, Valley Bank turned to the Nevada State Legislature. The EFTA did not regulate surcharges although its regulations did require clear disclosure of any surcharges. No states regulated surcharges, although there was no reason to believe they were prohibited from doing so. Recognizing this opportunity, Valley Bank petitioned the Nevada state legislature instead. The legislature considered and literally "overnight" enacted legislation prohibiting any ATM network from restricting members from charging surcharges. The stated purpose of the legislation was to enhance "consumer welfare" by leading to the deployment of more ATMs, especially at off premise sites and rural locations, to benefit Nevada's gaming industry, and to promote competition among ATMs.

Valley Bank went to federal court seeking declaratory relief that the legislation was legitimate. PLUS argued that the statute violated the Commerce Clause of the Constitution, since it protected Nevada banks and disadvantaged out of state consumers. PLUS warned in the litigation that other states would pass similar but inconsistent legislation, but the Ninth Circuit dismissed the claim as "speculation." Ultimately, PLUS was forced to permit Valley Bank to assess surcharges.

PLUS' alleged "speculation" was right on the mark. The PLUS/Valley Bank litigation created a model for creating and resolving disputes over ATM surcharges. In several states one or two banks which sought to assess surcharges, asked the legislature to enact legislation to prohibit networks from restricting surcharges. The banks typically would justify the laws because the surcharges would permit the deployment of additional ATMs at "tourist" locations. Since the in-state interests were clear, PLUS' efforts to oppose the legislation were largely unsuccessful. In the early 1990s, the number of states requiring surcharging increased until by late 1995 the number had grown to 15.

In 1995, PLUS finally prevailed in an antitrust suit brought by Southtrust, an Alabama bank. Judge Sam Pointer, an experienced and well-respected jurist, held that the PLUS network surcharge prohibition did not violate the antitrust laws. Rather, he held that it was "designed to enhance economic efficiency, and render markets more . . . competitive," and that the rule was pro-consumer because it "enhanced consumer welfare" and reduced consumer search costs.²⁴ In particular, he observed that since the PLUS network most likely would handle the transactions of travelers far from home, who were the most vulnerable to opportunistic behavior, that PLUS had a legitimate basis for protecting its card holders.

The judge's decision was consistent with other jurisprudence on price caps. As Justice Breyer held in a case involving price caps on doctors' fees, "the Congress that enacted the Sherman Act saw it as a way of protecting consumers against prices that were too high, not too

low. [Courts] should be cautious — reluctant to condemn too speedily — an arrangement that on its face appears to bring low price benefits to the consumer.²⁵

The disappointed Alabama plaintiffs again returned to the state legislature for pro-surcharge legislation. PLUS and the other national ATM network, CIRRUS, then decided that the battle was not worth the candle and rescinded their no-surcharge policies. In recent congressional hearings, both networks testified that the cost of conducting the battle in various state legislatures and attempting to comply with various and inconsistent state laws was simply too great.²⁶ The network rules prohibiting surcharges became unworkable in the light of the patchwork of state laws, and the resulting competitive distortions it created for the networks. Perhaps there was a more significant reason for the network's change of heart: some ATM owners had considered removing the PLUS mark from their ATMs in order to avoid the surcharge prohibition.²⁷

Discussion

Mandatory Access

The tension inherent in the issue of compulsory access to network facilities is clear: exclusion from an existing essential facility that has power in some market and that cannot be practically duplicated is anticompetitive; mandating access to a nonessential facility, however, can allow a free ride for those allowed to join and inhibit those who may wish to create new facilities, conferring monopoly power on the owner of the nonessential facility.

The courts have ruled that the issues must be decided by a rule of reason. That calls for a factual inquiry into the nature of the business to determine whether market power is being exercised and whether an alternative method of delivery of the good or service is possible. If there is a natural monopoly, access would be compelled under the doctrine. If, however, no market served by the facility is a natural monopoly, compelling access would be a mistake.

The various states that mandated access to ATM networks may have done so in the belief that ATM networks display substantial scale economies, both in production and in demand-side network economies, were likely natural monopolies. However, the effects of mandatory sharing laws imposed on ATM networks may help bring about a monopolistic structure.²⁸

How do mandatory access rules help bring about a monopolistic structure? In addition to the free ride that may be offered to firms who join a network without taking the risk of building a network, mandatory access rules help bring about a monopolistic structure in the following way. By placing all the regulatory concern at the downstream, horizontal level of competition, the regula-

tion neglects the upstream, vertical level of competition. As a result, the outcome can be a monopolistic network structure. Studies have shown that, even if jointly owned, such a monopolistic structure is likely to extract the full monopoly rent.²⁹

Surcharges

Our analysis of surcharges suggests that they have a potential benefit in that they likely encourage entry in the provision of ATMs, but they have a potential cost in that they restrict the ability of networks in internalizing the pricing decision of the machine owner and the card provider. Notwithstanding the potential costs of surcharges, several states prohibited the existing contracts of joint ventures to refrain from imposing surcharges.

These state laws created a business environment that forced multi-state networks to adhere to disparate laws in different states. In addition, the laws essentially prejudged a business practice that at least one court defended in its ruling. The laws also created the impression that each of the several states were attempting to further the interests of home-state real estate ventures at the expense of out-of-state visitors. When ATMs in all states surcharge, the result may be interpreted as the outcome of a prisoners' dilemma; the states that initially passed the laws may not be enjoying any more competitive advantage than had the laws not been passed.

Conclusion

After examining the state treatment of two important issues in joint venture business policy, access rules, and interchange fees and surcharging, we find that direct state action on these topics can be problematic. It is so for two reasons. The first is one that is common to many industries, which is that state regulation creates an uneven legal environment across states; the second is more specific to joint ventures, which is that states often enforce policies that are intended to improve the downstream, horizontal competitive landscape of a joint venture, but this can result in worsened competitive conditions in the upstream, vertical dimension of joint venture activity.

The mandatory sharing laws of the states attempted to ensure that small banks were not excluded from ATM networks, and were on an even ground with large banks. The result in some states is a more concentrated network structure with little intersystem competition; it is possible that consumers suffer in such an arrangement. The pro-surcharge legislation in various states was meant to improve the competitive standing of ATM deployers, but results in a worse double margin problem, in which consumers may pay higher prices for ATM services.

Regulating joint ventures is difficult because of the dual nature of their services. The provision of the central network good establishes an upstream, vertical relation-

ship between the central network and its participants. Interchange fees and marketing and routing rules promulgated by a network impose horizontal, downstream constraints on the activities and prices of network participants. The dilemma is that by imposing regulations

on network relaxing constraints of the downstream horizontal behavior of its participants, the regulator may adversely affect the incentives for entry and the conditions of post-entry behavior in the upstream market for the network good. ■

Footnotes

- ¹ For background on the treatment of payment system joint ventures, see David A. Balto, *Antitrust Analysis of Financial Institution Joint Ventures*, 16 *WORLD COMPETITION* 107 (1993).
- ² 15 U.S.C. § 1693c (1996).
- ³ 15 U.S.C. § 1693q (1996); see Donald I. Baker & Roland E. Brandel, *THE LAW OF ELECTRONIC FUND TRANSFER SYSTEMS*, ¶ 12.06[3][a] & [b] (2d ed. 1988).
- ⁴ Baker and Brandel, *ELECTRONIC FUND TRANSFER SYSTEMS*, ¶ 12.06[3][a] & [b]
- ⁵ See *EFT IN THE UNITED STATES: POLICY RECOMMENDATIONS AND THE PUBLIC INTEREST*, Final Report of the National Commission on Electronic Fund Transfers (1977).
- ⁶ See Department of Justice, Antitrust Division, *POLICY STATEMENT ON SHARING TO THE NATIONAL COMMISSION ON ELECTRONIC FUND TRANSFERS* (Jan. 13, 1977).
- ⁷ See William F. Baxter, Paul H. Cootner and Kenneth E. Scott, *RETAIL BANKING IN THE ELECTRONIC AGE: THE LAW AND ECONOMICS OF ELECTRONIC FUNDS TRANSFER* (1977).
- ⁸ See *EFT IN THE UNITED STATES*, *supra*, note 4, at 57.
- ⁹ In 1977, Senator McIntyre (then Chairman of the Financial Institutions Subcommittee of the Senate) introduced a bill to implement the commission's recommendation concerning the preemption of state mandatory sharing laws. See S. 2293, 95th Cong., 1st Sess. (1977). The McIntyre bill provided that the antitrust laws would govern the legality of sharing programs, and nullified state mandatory sharing laws. In addition, it provided that an institution denied access to an EFT system could ask its federal regulatory agency to mediate the access dispute with the system owners. The bill, however, was never reported out of committee, and no similar legislation has since been introduced or enacted.
- ¹⁰ Elizabeth S. Laderman, *The Public Policy Implications of State Laws Pertaining to Automated Teller Machines*, FEDERAL RESERVE BANK OF SAN FRANCISCO ECONOMIC REVIEW (Winter 1990).
- ¹¹ See the Testimony of James H. Hayes before the Committee on Banking and Financial Services United States House of Representatives, March 27, 1996.
- ¹² William F. Baxter, *Bank Interchange of Transactional Paper: Legal and Economic Perspectives*, *JOURNAL OF LAW AND ECONOMICS*, 26, no. 3 (October, 1983), 541-88.
- ¹³ N. Economides and S. Salop, *Competition and Integration among Complements, and Network Market Structure*, *JOURNAL OF INDUSTRIAL ECONOMICS*, 40, no. 1 (March 1992), 105-230.
- ¹⁴ Steven C. Salop, *Deregulating Self-Regulated Shared ATM Networks*, *ECONOMICS OF INNOVATION AND NEW TECHNOLOGY* 1, no. 102 (1990), 43-58; *id.*, *Evaluating Network Pricing Self-Regulation*, in *ELECTRONIC SERVICES NETWORKS: A BUSINESS AND PUBLIC POLICY CHALLENGE*, Margaret E. Guerin and Calvert & Steven S. Wildman, eds., 1991.
- ¹⁵ *In re Arbitration Between First Texas Savings Ass'n and Financial Interchange, Inc.*, 55 *ANTITRUST & TRADE REG. REP.* (BNA) No. 1380, at 340 (Aug. 25, 1988).
- ¹⁶ For an in-depth description of the First Texas proposal, see Salop, *Evaluating Network Pricing Self-Regulation*, *supra* note 14, at 88.
- ¹⁷ 55 *ANTITRUST & TRADE REG. REP.* (BNA), No. 1380, at 365.
- ¹⁸ N. Economides, *Mixed Bundling in Duopoly*, New York University, Stern School of Business, Working Paper EC 93-29 (1993).
- ¹⁹ See Jean-Jaques Laffont, Patrick Rey, and Jean Tirole, *Network Competition: 1. Overview and Nondiscriminatory Pricing*, 29 *RAND JOURNAL OF ECONOMICS* (Spring 1998), 1.
- ²⁰ James McAndrews, *ATM Surcharges*, *CURRENT ISSUES IN ECONOMICS AND FINANCE* (Federal Reserve Bank of New York), Volume 4, Number 4, April 1998.
- ²¹ For a description of the use of nondiscrimination rules to address the problem of surcharges, see David A. Balto and Karen L. Grimm, *Consumer Pricing for ATM Services: Antitrust Constraints and Legislative Alternatives*, 9 *GEORGIA STATE L. REV.* 839 (1993).
- ²² *Valley Bank of Nevada v. PLUS System, Inc.*, 749 F. Supp. 223 (D. Nev. 1989), *aff'd*, 914 F.2d 1186 (9th Cir. 1990).
- ²³ For a discussion of the reasons why surcharge prohibitions are efficient, see David Balto, *ATM Surcharges: Panacea or Pandora's Box?*, 12 *REV. OF BANKING & FINANCIAL SERVICES* (Oct. 9, 1996).
- ²⁴ *Southtrust Corp. v. Plus Systems*, 913 F. Supp. 1517, 1995-2 *TRADE CAS.* (CCH) ¶ 71,219 (N. D. Ala., 1995), at 75, 906.
- ²⁵ *Kartell v. Blue Shield*, 749 F.2d 922, 930-31 (1st Cir. 1984) (finding that Blue Shield's ban on balance billing did not violate the antitrust laws), *cert. denied*, 471 U.S. 1029 (1985).
- ²⁶ See testimony of Paul A. Allen, Vice President and General Counsel, VISA U.S.A., before the Subcommittee on Financial Institutions and Consumer Credit of the House Committee on Banking and Financial Services (April 25, 1996), at 8.
- ²⁷ See *New Math Renews Old Surcharge Debate*, *BANK NETWORK NEWS* (Sept. 15, 1995) (describing action of First Interstate to remove logos of ATM networks that prohibited surcharges).
- ²⁸ See David Balto, *Access Demands to Payment Systems Joint Ventures*, 18 *HARV. J.L. & PUB. POL'Y* 623 (1995); Donald I. Baker, *Compulsory Access to Network Joint Ventures Under the Sherman Act: Rules or Roulette?*, 1993 *UTAH L. REV.* 999 (1993).
- ²⁹ James J. McAndrews and Rafael Rob, "Shared Ownership and Pricing in a Network Switch," *FEDERAL RESERVE BANK OF PHILADELPHIA WORKING PAPERS*, No. 94-6 (April, 1994).

