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**Accommodating a New Tenant in the House of Cards:
Introducing Competition Into a Network Industry**

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04-01

LAW AND ECONOMICS WORKING PAPER SERIES

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Accommodating a New Tenant in the House of Cards: Introducing Competition Into a Network Industry

By Amitai Aviram^{*}

The table was a large one, but the three were all crowded together at one corner of it:

'No room! No room!' they cried out when they saw Alice coming.

'There's plenty of room!' said Alice indignantly, and she sat down in a large arm-chair at one end of the table.¹

Abstract:

The network facilities of many network industries are natural monopolies. It is well accepted, however, that certain network industries may efficiently accommodate competition between several firms over the utilization of the network facilities. Historically, many networks had been created by a single firm, and introducing competition into such networks often requires compelled accommodation of a new competitor into a network dominated by an incumbent.

This paper studies one case of compelled accommodation in a networks industry – the introduction of a second processor of Visa-brand credit cards in Israel. The paper does not attempt to offer a theory on this matter, but rather provides a detailed case study that should assist in establishing an empirical basis to theories on government's role in introducing competition into a network industry.

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¹ Lewis Carroll, *Alice's Adventures in Wonderland*, Chapter VII.

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I. Introduction

Network Industries are lines of business in which a significant amount of the consumer’s utility is derived from network externalities.² Network externalities are the phenomenon in which consumers of a good or service gain more utility from it as the number of other people that consume that good or service increases.³ Simply put, network industries are businesses that exhibit ‘demand economies of scale’ – The higher the satisfied demand, the greater the utility from each unit supplied.⁴

² For more on the concept of network industries, see, e.g.: Dennis W. Carlton & J. Mark Klammer, *The Need for Coordination Among Firms, With Special Reference to Network Industries*, 50 U. Chi. L. Rev. 446, 450 (1983); Dennis W. Carlton & Alan S. Frankel, *The Antitrust Economics of Credit Card Networks*, 63 Antitrust L. J. 643 (1995); Randal C. Picker, *Regulating Network Industries: A Look at Intel*, 23 Harvard Journal of Law & Economics 159 (1999).

³ Michael L. Katz & Carl Shapiro, *Network Externalities, Competition, and Compatibility*, 75 Am. Econ. Rev. 424 (1985). For more on network externalities, see: Nicholas Economides, *The Economics of Networks*, 14 Int’l J. of Industrial Org. (1996).

⁴ This is to be contrasted with ‘supply-side economies of scale’, which is the phenomenon in which some utility (usually, lower production costs) is achieved by producing more of the good or service. Consumers of such a product may indirectly benefit from the economies of scale (e.g., through lower prices that result

The credit card industry is a network industry.⁵ It has two ‘customers’⁶ – consumers (who pay for their transactions with credit cards)⁷ and merchants (who are guaranteed to receive payments made to them by credit cards): The more merchants join the network (by accepting a certain brand of credit card), the greater the utility to the consumer holding a card of that brand (since the card is useful in more establishments); The more consumers join the network (by being issued a certain brand of credit card), the greater the utility to the merchant accepting cards of that brand (because the benefit of guaranteed payments can apply to more transactions).

Since the utility to a consumer is greater the larger the network, one would expect, other things equal, that once a network is larger than its rivals, all consumers would join the larger network, and that network would become a monopoly.⁸ Other things are not always equal, though. Consumers may find certain benefits of a smaller network outweigh the lesser benefits derived from its size. The balance depends on the degree of product differentiation as well as the magnitude of the network externalities.⁹

Competition between networks is not the only form of competition possible in a network industry. If the customers of competing systems¹⁰ can transact with each other without

from the lower production costs), but their utility from the product is not affected by the number of other consumers of the product. A useful test to determine if certain economies of scale are network externalities is to determine whether those economies of scale would exist if the same amount of the product was produced by a larger number of producers. Since network externalities are concerned with the scale of demand, they are unaffected by splitting production between several firms (as long as all the products can interconnect with each other). But supply-side economies of scale depend on production by a single firm, and therefore are decreased by such a split.

⁵ We will use the term ‘credit card’ broadly, to include not only credit cards but also charge cards, debit cards, and similar products. Since we focus on the network aspects of the industry, not the financial ones, the financing aspect of the cards will be of relatively little importance in this paper.

⁶ For discussions on the benefits of consumers and merchants from credit cards, see: S. Chakravorti & T. To, *Toward a Theory of Merchant Credit Card Acceptance*, Federal Reserve Bank of Chicago Working Paper WP-99-16 (Nov. 1999); R.L. Peterson, *Factors Affecting the Growth of Bank Credit Card and Check Credit*, 32 J. of Fin. 553 (1977).

⁷ Consumers include not only households, but also merchants in their capacity as purchasers from other merchants.

⁸ This phenomenon is called “tipping”. See: Michael L. Katz & Carl Shapiro, *Systems Competition and Network Effects*, 8 J. of Econ. Pers. 93, 105-106 (1994).

⁹ On competition between networks and within networks see: Katz & Shapiro (1994), *supra* note 8, at pp. 105-106, 110-111; Michael L. Katz & Carl Shapiro, *Product Compatibility Choice in a Market with Technological Progress*, Oxford Economic Papers, Nov. 1986.

¹⁰ We shall use the term ‘system’ to regard the mechanisms of exchange governed by a single firm, while a ‘network’ may include any number of systems (including a single system), in which the cost of intersystem transactions is not significantly different than the cost of intrasystem transactions of a similar type.

incurring a cost significantly greater than that when transacting with other customers of their system, then customers of both systems enjoy the greater network externalities derived from the combined number of customers. When the cost of intersystem transactions is not significantly different than that of intrasystem transactions (for transactions of a similar type), the two systems are compatible, and are in fact part of one larger network.

The credit card industry exhibits both inter-network and intra-network competition.¹¹ For example, several credit card companies may compete in issuing Visa brand credit cards (intra-network competition within the Visa network), while they also compete with companies offering Master Card brand credit cards (inter-network competition).¹² This is most likely due to the fact that credit cards offer benefits other than those related to network size, and also due to the degree of non-exclusivity in consumption of credit cards (while any given transaction is usually made with a single credit card, many consumers have more than one credit card, and many merchants accept more than one brand of credit cards).

The creation of compatibility is at the heart of a multi-system network. Since in inter-network competition the competitors usually have differently sized networks, they unevenly benefit from network externalities. As long as the networks are not connected, the larger network has an advantage in such competition, both by capturing some of the added value its larger network confers on consumers, and, indirectly, by squeezing the smaller networks out of the market and benefiting from the added market power.^{13,14}

¹¹ There are differences in the structure of credit card industries between countries. For example, in the Israeli credit card industry, before 1998, there was very little intra-network competition. We will explore the difference between the Israeli and U.S. credit card industries *infra*, in Parts II(2) and II(3).

¹² Issuing credit cards is but one aspect of competition in the credit card industry. We will see other aspects of competition when we survey the structure of the industry, *infra* in Part II(1).

¹³ We must be careful not to stumble into the fallacy of double counting, though. A firm can't at the same time extract the maximal profit out of a competitive advantage that it has **and** use that competitive advantage to harm its competitors. It could strike a balance between the two, putting its advantage to use in extracting some profits and deterring or harming competitors to a certain degree.

¹⁴ Where networks are not interconnected, the existence of a large network serves as an entry barrier, augmenting the large network's market power. See Drew Fudenberg & Jean Tirole, *Pricing a Network Good to Deter Entry*, 48 J. Indus. Econ. 373 (2000) (The installed base of a user can serve a preemptive function on an entrant if the entrant's good is incompatible with the incumbent's good and there are network externalities in demand).

This will sometimes make the larger system reluctant to facilitate compatibility between its system and other systems. Where the larger system must interconnect with others (*e.g.*, due to a legal requirement or where some degree of interconnection is inevitable), it might engage in a strategy of degrading the connectivity.¹⁵ Foreseeing this, interconnection agreements may include incentives for the larger system to interconnect efficiently with other members of the network (for example, by compensating the larger system for the greater value its system confers to the network).

However, such mechanisms to reallocate the ‘pie’ are limited to the extent the interconnection agreement enlarges that ‘pie’. When a larger system is likely to, or already is holding significant market power, an interconnection agreement will hinder its exercising of that market power (as it would now require coordination with the other systems in the network). The loss of monopoly profits causes the two firms’ collective ‘pie’ to shrink (though it enlarges society’s pie by eliminating the dead weight loss). When such losses of market power are greater than the benefits from network externalities of the now larger network,¹⁶ the systems’ pie shrinks and no mechanism can entirely compensate the larger system. In such cases, the larger system is very likely to resist facilitating compatibility.

This paper observes difficulties and possible solutions to facilitating compatibility between systems; that is, in causing two (or more) firms to operate on the same network. Specifically, the paper examines government’s role in introducing competition into a network industry. The question of government’s role in introducing competition to a less than competitive network industry is one of great depth,¹⁷ and this paper has the humble

¹⁵ See: Jacques Cremer, Patrick Rey & Jean Tirole, *Connectivity in The Commercial Internet*, 48 J. Indus. Econ. 433 (2000) (A larger internet backbone provider may opt for a ‘targeted degradation’ strategy, where it lowers the quality of interconnection with its smaller rivals).

¹⁶ Note that the benefits to the larger system from network externalities of a larger network are likely to be smaller when a small system joins a very large one. These are exactly the cases in which the large network will most likely have some market power.

¹⁷ Discussion on this topic has developed in many fronts. For example, many scholars debate the suitability of open access requirements in network industries. See, *e.g.*: Daniel Shih, *Open Access of Forced Access: Should the FCC Impose Open Access on Cable-Based Internet Service Providers*, 52 Admin. L. Rev. 793 (2000); James B. Speta, *Handicapping the Race for the Last Mile?: A Critique of Open Access Rules for Broadband Platforms*, 17 Yale J. on Reg. 39 (2000); Lee A. Rau, *Open Access in the Power Industry: Competition, Cooperation and Policy Dilemmas*, 64 Antitrust L.J. 279 (1996). Other voices call for governmental sponsoring of maverick competitors in uncompetitive industries. See: Michal S. Gal,

intent of providing a detailed case study – on the entry of a new credit card firm into the Israeli Visa credit card network – that should assist in establishing an empirical basis to theories on government's role in introducing competition into a network industry.¹⁸

In Part II, we explain the structure and operation of the credit card industry in general.¹⁹ We then briefly survey one such industry structure – the American credit card industry²⁰ – that serves as a benchmark to which we compare the structure of the Israeli credit card industry.²¹ We find that there are striking differences between the two, and suggest that these differences are explained by the different structure of the consumer banking industry in either country.

After examining the market structure, we proceed to examine the chronology of events that led to the entry of a second credit card firm into the Israeli Visa network.²² As we have mentioned above, in some cases resistance to interconnection may result from an attempt to maintain monopolistic rents. In such cases, the parties to the interconnection negotiation may not reach an agreement, even though from society's standpoint such an agreement would be welfare enhancing. This may justify government intervention in facilitating interconnection. We examine some of the options for intervention that were open to the Israeli Antitrust Authority.²³

We then focus on key issues in the interconnection agreement: The setting of interchange fees and coordination in the operation of the network.²⁴ The entry of a second system into the Israeli Visa network led to striking effects on the structure of the Israeli credit card industry. We therefore conclude with a brief review of the aftermath of the interconnection agreement, so much as can be observed at this recent stage.²⁵

Reducing Rivals' Prices: Government Supported Mavericks as New Solutions for Oligopoly Pricing, 7 Stan. J.L. Bus. & Fin. 73 (2001).

¹⁸ This paper is aimed to describe, rather than prescribe. It will concentrate on providing detailed information on the case at hand and its effects, in order to contribute to future study of the issue.

¹⁹ *Infra*, Part II(1).

²⁰ *Infra*, Part II(2).

²¹ *Infra*, Part II(3).

²² *Infra*, Part III(1).

²³ *Infra*, Part III(2).

²⁴ *Infra*, Part III(3).

²⁵ *Infra*, Part IV.

II. The Credit Card Industry

1. Basic Concepts of the Credit Card Industry

The credit card industry provides a service - a payment system.²⁶ As a payment system, credit cards compete with other commonly used payment systems, such as cash and checks. Credit cards are rapidly gaining acceptance as a payment system worldwide. Credit cards accounted for 15.8% of the global personal consumption expenditure in 1998, while cash and checks account for 79.3%. Four years earlier credit cards accounted for only 10%.²⁷

One should note that credit cards are an expensive method of payment. One survey estimated the average cost of a credit card transaction to be 88 cents, as compared to 79 cents per check transaction, 47 cents per debit card transaction, and 4 cents per cash transaction.²⁸ Another survey estimated the cost of a credit card transaction at \$1.07, as compared to 58 cents per check transaction and 8 cents per cash transaction.²⁹ And yet, another survey found that 83 percent of retailers felt that accepting credit cards increased sales and 58% thought their profits would increase by accepting credit cards.³⁰ We will now examine the important traits of the payment system, that cause it to be so valuable as to gain ground over less expensive competing systems.

²⁶ As we said above, the term 'credit card' includes charge cards and other cards that do not enable medium or long term financing. Therefore, we ignore a characteristic that is very important in credit cards, but not debit or charge cards – the credit card as a method of financing. We instead limit our discussion to the credit card as a payment system. As we will see, in Israel credit cards are used primarily for their payment functions, not their financial functions.

²⁷ Statistics from the Visa International web site (www.visa.com/av/press_center/digital/statistics.html) - as of April 4, 2000).

²⁸ Food Marketing Institute, *A Retailer's Guide to Electronic Payment Systems Costs*, cited in Chakravorti & To, *supra* note 6.

²⁹ D.B. Humphrey & A.N. Berger, *Market Failure and Resource Use: Economic Incentives to Use Different Payment Instruments*, in D.B. Humphrey (ed.), *The U.S. Payment System: Efficiency, Risk and the Role of the Federal Reserve* (1990), pp. 45-86, cited in Chakravorti & To, *supra* note 6.

³⁰ Ernst and Young, *Survey of Retail Payments Systems*, Chain Store Age, cited in Chakravorti & To, *supra* note 6.

Payment systems enable a party to a transaction to provide value regardless of the specific needs of the other party.³¹ Therefore, the first important trait of the credit card industry is that it enables a consumer to provide generic value, equivalent to cash, in a transaction with a merchant.³²

In ancient payment systems, the value was inherent in the currency used (e.g., gold coins conferred value equal to the actual value of the gold in them). Such systems are wasteful. The intrinsic value of the currency is the value of its alternative use; using ‘expensive’ currency (of high intrinsic, not necessarily nominal, value) for payment prevents it from being utilized for another use. By replacing the expensive currency with currency that is less expensive (because it has lower valued alternative uses), the expensive currency would be freed to its alternative uses.

A low (intrinsic) value currency system will be pareto superior to a high value system only if the shift to low value currency would not undermine the value at which the currency is accepted. For example, suppose an ounce of gold is worth one dollar, and an ounce of copper – five cents. A golden dollar was a coin made of one ounce of gold. After shifting to a low intrinsic value system, the new dollar is made of an ounce of copper. If the copper dollar is accepted in transactions for merely 5 cents, nothing was gained – the payment system still freezes assets of the same utility as their monetary value.

For the payment system to be efficient, currency should trade on par – that is its nominal value – regardless of its intrinsic value. To trade on par, people accepting the currency must be guaranteed that they will receive the par value of the currency when disposing of it. Intrinsic value was one such guarantee. Legal tender offers a similar guarantee by the government issuing the notes. Credit cards provide a similar guarantee by the credit card company, to pay to a merchant the value agreed on (between the consumer and the

³¹ Without payment systems, the only method of providing value would be through barter. Barter would reduce the value provided and limit the parties willing to transact, since one party may not have any good or service to barter that the other party needs or thinks it can resell.

³² This transaction will be referred to as the ‘**base transaction**’.

merchant) in the base transaction. That is the second important trait of credit card systems.³³

A third trait of the credit card industry – though it is not common to all credit cards - is its extensive use of the network structure. Many credit card networks separate between the dealing with consumers (assessing their financial condition, deciding the line of credit, interest rate, etc., issuing the cards and collecting payments) and dealing with the merchants (guaranteeing payment to the merchant, transferring the money to it, providing mechanisms to lessen fraud, etc.). Therefore, several different companies may do either of these functions, or both, and in many transactions different credit card companies will deal with the consumer and the merchant.

By now one can see that there are four ‘roles’ to play in a credit card transaction. The first two are the parties to the base transaction – the **consumer** and the **merchant**. The third is the credit card company that had issued the credit card with which the purchase was made, and that deals with the consumer in all credit card matters – the **issuer**. The fourth role is that of the credit card company that deals with the merchant (enlists it into the network, guarantees and processes the payments the merchant is due) – the **acquirer**.³⁴

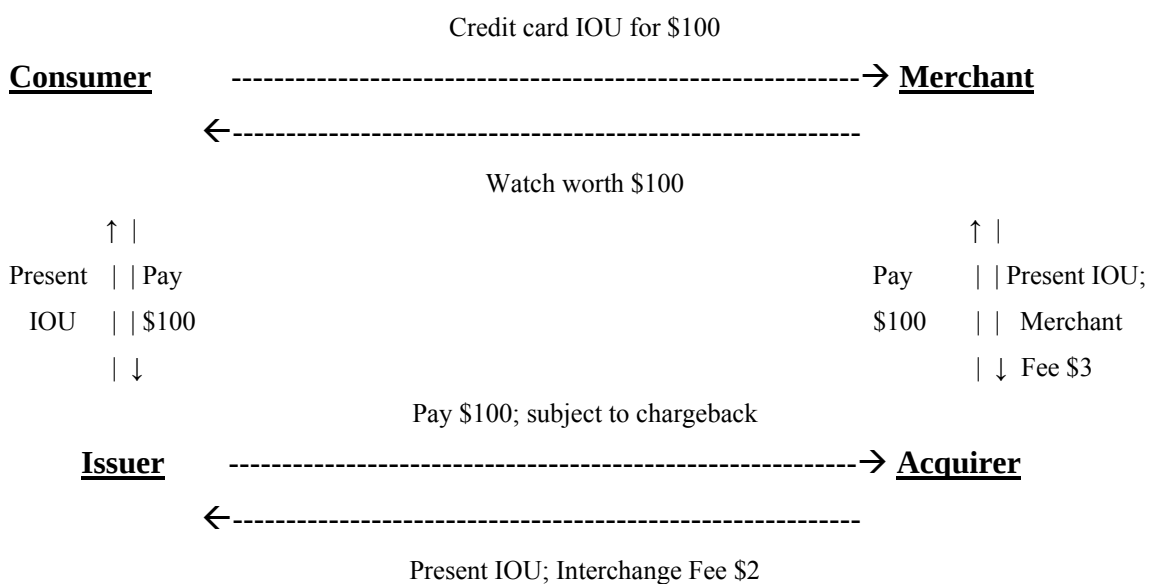
One person can play several of the four roles. In some transactions, the issuer and the acquirer are the same entity. Sometimes the issuer is also the merchant (an acquirer is not needed then), as is the case with retailer cards, which are often issued by department stores, supermarket or gas chains, etc. Theoretically, the acquirer could be the consumer, but such transactions make little sense, since the acquirer is the guarantor to the consumer’s promise to pay. Similarly, there is no sense in the consumer and the merchant being the same person, since there is then no real exchange of value.

Let us examine the process of a credit card transaction. It all begins with the base transaction. For example, consumer buys from merchant a watch at a price of \$100.

³³ For a very interesting review of payments systems see: Alan S. Frankel, *Monopoly and Competition in the Supply and Exchange of Money*, 66 Antitrust L. J. 313 (1998).

³⁴ The acquirer is often called ‘merchant acquirer’, ‘merchant bank’, etc.

Consumer pays with a credit card, so in return for the watch, consumer signs a credit card IOU for \$100. We can then trace, in the diagram below,³⁵ either the movement of the money (inner circle; moves counter-clockwise) or the movement of the IOU (outer circle, moves clockwise): The merchant presents the IOU to the acquirer, who pays \$100 to the merchant (after deducting a merchant fee – in our example 3% - for providing facilitating the credit card purchase). The acquirer then presents the IOU to the Issuer, who pays the acquirer \$100, and finally the issuer presents the IOU to (or simply bills) the consumer for \$100.



Two issues are worth elaborating on, regarding the Issuer-Acquirer relationship. First - the issuer is responsible for collection from the consumer, and therefore in effect guarantees to the Acquirer the consumer's IOU (while the acquirer guarantees the same to the merchant). The issuer must be compensated for both operating costs and the risk of guaranteeing (to the Acquirer) the consumer's transactions. The compensation is in the form of an interchange fee, generally a certain percentage of the value of transactions in

³⁵ This diagram is based on diagrams in Carlton & Frankel, *supra* note 2, at p. 647. For similar descriptions see: Nicholas Economides, *Features of Credit Card Networks*, Federal Reserve Bank of St. Louis Rev. 60 (Nov./Dec. 1995); Chakravorti & To, *supra* note 6.

which a credit card issued by the issuer was used. In our example, this rate is 2%. We will later discuss interchange fees in depth.³⁶

A second point regards chargebacks. Since the issuer guarantees the consumer's payments, and has better knowledge of the consumer's financial situation than the acquirer or the business, the issuer may set certain conditions to the use of the credit card, and require that the acquirer and merchant abide by them. A common condition is requiring individual authorization for each transaction above a certain amount. For example, requiring that the merchant call by phone or authorize on line with the issuer any credit card purchase of above \$250. If the conditions were not followed, the issuer may chargeback (in effect, refuse to pay) the amount set in the IOU. The acquirer will then usually refuse to honor the IOU presented by the merchant who failed to follow the conditions. Chargebacks will be discussed below, when examining various issues operational issues in the interconnection agreement.³⁷

We will now briefly survey the credit card industry in the United States, and then compare it to the subject of our case study – the Israeli credit card industry.

2. The U.S. Credit Card Industry

The first general-purpose charge card was issued by Diners Club in 1949. The first general-purpose credit card – BankAmericard (the predecessor of Visa) was issued by Bank of America in 1958. Since then credit cards have become a prevalent payment system, with 16.89 billion credit card transactions in the United States in 1997, accounting for \$1.07 trillion.³⁸ Ten years earlier, in 1987, the figure was only \$375 billion.³⁹ In 1991, over 111 million Americans held over 1 billion credit cards and used those cards for nearly one-half trillion dollars of spending, which is about 12 percent of

³⁶ *Infra*, in Part III(3)(a).

³⁷ *Infra*, in Part III(3)(b).

³⁸ Chakravorti & To, *supra* note 6.

³⁹ Laurence M. Ausubel, *The Failure of Competition in the Credit Card Market*, 81 Am. Econ. Rev. 50, 51 (1991).

total disposable personal income and 28 percent of retail sales of goods and services for which credit cards typically can be used.⁴⁰

The credit card industry is often segmented based on the nature of the issuer:

“Retailer cards are issued by an individual merchant (or, increasingly, by a third-party contractor) and allow the holder to make purchases at any of the merchant's stores. Each store is linked to a central corporate credit department or to an agent third-party processing firm. When a consumer presents a retailer card, a central computer is checked to verify that the account is in good standing and that a sufficient line of credit remains to cover the purchase. If there are no problems, the transaction is completed and the consumer is subsequently billed by the credit department for the full amount the consumer purchased from that and any other location in the merchant retail chain. Most credit cards in circulation in the United States are retailer cards, although spending on retailer cards represents only about one-fifth of all credit card spending.

Proprietary general purpose cards, such as the American Express "Green Card" (and its cousins, including the Optima credit card), Discover Card (Dean Witter), and Carte Blanche and Diners Club (Citibank), are cards issued by a single firm that can be used to make purchases from many different and unrelated merchants. While the cards function in much the same way as retailer cards, a consumer can make purchases at far more merchant locations with a single general-purpose card than with dozens of typical merchant cards.⁴¹

Finally, *bank cards* are general purpose credit cards issued by any one of thousands of financial institutions that are connected to the networks

⁴⁰ Carlton & Frankel, *supra* note 2.

⁴¹ Some card programs, such as American Express's "Green Card" and Citibank's Diners Club Card, do not extend credit past the due date on the monthly statement (i.e., they do not offer "revolving credit"), but even this "float" period until the due date represents the extension of credit. The industry calls these plans "charge" or "travel and entertainment" cards [Footnote from cited text].

operated by Visa or MasterCard, the "bank card associations." Bank cards differ from proprietary cards in that their networks do not link each merchant to a single card issuer, but rather connect each merchant to its own financial institution (or its processing agent), which is in turn connected through the networks to each card-issuing member bank.⁴² The bank card associations allow customers of one financial institution to make purchases from merchants with bank accounts at different financial institutions. The associations' networks permit transaction authorization and clearinghouse settlement. The associations also engage in joint promotions, fraud control, and other collective activities. Bank cards typically are accepted at more merchant locations than proprietary general purpose cards."⁴³

Three credit card brands, or networks, dominate the U.S. market. The largest network, Visa, has a market share of about 50% of transactions volume and 53% of the number of general-purpose cards issued.⁴⁴ The second largest, MasterCard, has a market share of 25% of transactions volume and about 33% of the number of cards issued. The third largest is American express, has a market share of 18% of transactions volume and 5% of the number of cards issued. The fourth largest, Discover/Novus, has 6% of the transactions volume and 8.5% of the number of cards issued.⁴⁵

From the acquiring side, Visa and MasterCard have a similar base – nearly all merchants that accept Visa cards accept MasterCard cards as well, and vice versa. The two networks

⁴² Issuers of credit cards often rely upon third-party agents to process their credit card transactions [Footnote from cited text].

⁴³ Carlton & Frankel, *supra* note 2.

⁴⁴ Transactions volume was held to be the proper parameter for assessing market shares in the credit card industry in: *SCFC v. Visa U.S.A.*, 819 F.Supp. 956 (D.Utah 1993), at p. 966 and footnote 8. However, in: *The Treasurer v. Philadelphia National Bank*, 682 F.Supp. 269 (D.N.J. 1988), the proper parameter for market share calculations of ATM was held to be the number of ATM machines – which is equivalent to the number of merchants accepting a credit card.

⁴⁵ Civil Action No. 98 – Civ. 7076, in the United States District Court for the Southern District of New York. Complaint filed on Oct. 7, 1998.

are accepted by 3.4 million merchants, as compared to 2.5 million merchants accepting American Express, and 3.1 million merchants accepting Discover/Novus.⁴⁶

Concentration of networks may be even greater, since there is great similarity between the banks composing (and owning) the Visa and the MasterCard networks. Therefore, one might expect them to compete less vigorously with each other. Indeed, the U.S. department of Justice makes just that claim in a case currently pending.⁴⁷

This seemingly very concentrated market may be deceiving. Both Visa and MasterCard are bank cards, while American Express is a general purpose card. Most operational decisions are made not by the network, but by the issuer independently. Each issuer decides whether to open an account for a consumer and if they do, decide the interest rate, annual fee, grace period, credit limit and other terms of the accounts.⁴⁸ Therefore, perhaps a better measure of the concentration of the industry would be the market share of issuers.⁴⁹

Through that looking glass, the industry looks much less concentrated. In 1992 Citibank, then the largest issuer, had total outstanding balances of \$33.8 billion, approximately 15% of the market (up from \$31.5 billion in 1990); Dean Witter, issuer of the Discover Card, had \$16.4 billion (up from \$11.6 billion in 1990), Chase Manhattan Bank had \$10.4 billion, about 4% of the market (up from \$10.1 billion in 1990).⁵⁰

Ausubel, who considers only issuers of bank cards (Visa and MasterCard) finds that in 1987, the top ten issuers had a market share of 43.4% of outstanding balances, while the second ten had an additional 9.6%. Measuring market share by number of accounts results in an even more egalitarian result – 30% of the accounts held by the top ten, and another 9.7% held by the second ten.⁵¹

⁴⁶ Civil Action 98/7076, *supra* note 45.

⁴⁷ Civil Action 98/7076, *supra* note 45.

⁴⁸ Ausubel, *supra* note 39, at p. 51.

⁴⁹ Indeed, that is the view suggested by Ausubel in his paper, *supra* note 39, at p. 51.

⁵⁰ “Clinging On”, *The Economist*, Nov. 20, 1993, pp. 78-79. Curiously, these figures do not include American Express.

⁵¹ Ausubel, *supra* note 39, at p. 52.

The industry is becoming more concentrated. While the top ten credit card issuers in the U.S. held in 1986 to a combined market share of 33% of transaction volume and 40% of outstanding credit balance, the figures in 1992 were 55% and 63%, respectively.⁵² The trend has continued through the 1990s, fueled (among other things) by the consolidation of the banking industry.⁵³ Citicorp currently has a market share of approximately 16%, and has shifted to second place after Banc One.⁵⁴ During that time, seven of the top ten issuers have merged or acquired rivals.⁵⁵

We will now proceed to examine a far more concentrated credit card industry – and the subject of our case study – the Israeli credit card industry.

3. The Israeli Credit Card Industry

Two networks controlled the Israeli credit card industry until 1998. One, Isracard Ltd. (“**Isracard**”), is owned by Israel’s largest bank – Bank Hapoalim. The other, ICC - Israel Credit Cards Ltd. (“**ICC**”) has been owned until 2000 jointly by the Israel’s second largest bank – Bank Leumi and the third largest bank – Israel Discount Bank.

Isracard began as a local network, offering credit cards of that brand name. A local network has little ability (and often, little incentive) to enlist any significant number of foreign businesses to the network. As more Israelis required credit cards that would be of use for transactions abroad, Isracard joined the MasterCard international network.⁵⁶ ICC has joined the Visa international network.

⁵² The Economist, *supra* note 50.

⁵³ We will see the close relationship between concentration in the banking and credit card industries when we examine the Israeli credit card industry, *infra*, in Part II(3).

⁵⁴ “Global Credit Card Market May Change Dramatically: Citigroup shifts from Visa to MasterCard”, *Globes*, Feb. 11, 1999.

⁵⁵ “New Plastic Powerhouses”, *Orange County Register*, July 13, 1998.

⁵⁶ Since joining the MasterCard network, Isracard issues international credit cards bearing the MasterCard symbol, and local cards (cards restricted to transactions within Israel) bearing both the MasterCard symbol and the Isracard symbol. The latter cards are issued to consumers who are considered of lesser financial ability. All Israeli merchants accepting MasterCard accept Isracard as well, and vice versa. No foreign merchants accept Isracard.

Two other international credit card networks entered the Israeli market significantly later (in the 1990s), but did not change the competitive balance. Diner's club had merged into ICC, and the American Express franchise was awarded to an affiliate of Isracard. Therefore, the Israeli market continued to accommodate only two competitors, each offering two credit card brands.

In 1996, ICC's market share has been estimated at 55%, and Isracard's at – 45%.⁵⁷ Among the four networks (in 1997), Visa's share has been estimated at about 49%, Isracard/MasterCard at 44%, Diner's Club at 4%, and American Express at 3%.⁵⁸

Credit cards are very popular as a payment system in Israel. In 1996, the industry transaction volume was estimated at 43 billion NIS (New Israeli Shekels).⁵⁹ 71% of the Israeli population has been issued a credit card.⁶⁰ Credit cards are used in about 32% of household consumption purchases, and is more popular than personal checks (55% of the non-cash purchases are done with a credit card, while most of the remaining non-cash purchases are done with checks).⁶¹ The average annual transaction volume per card in Israel was in 1995 -\$4,410. In comparison, the volume per card in France is \$4,190; in the UK - \$2,753; in Canada - \$1,807; and in the U.S. - \$1,214.⁶²

These last figures may seem surprising considering the lower GDP per capita in Israel compared to the U.S., UK, Canada or France.⁶³ They are explained not only by the popularity of credit cards, but also by the fact that most Israelis (but not most consumers

⁵⁷ "Visa Survey: Visa and Diners have 55% of the Credit Card Market", *Ha'Aretz*, Feb. 26, 1996.

⁵⁸ "Visa vs. Visa", *Ma'ariv*, May 15, 1997. An older survey by ICC claimed that firm had even better market share figures. ICC claimed in 1996 that 60% of Israeli adults have been issued a Visa credit card, as compared to 43% for Isracard/MasterCard, 12% for Diner's Club, and 2% for American Express. These figures are not market share figures, since consumers may hold more than one card. Figures quoted from: "7 of 10 Israelis Have a Credit Card", *Yediot Aharonot*, February 26, 1996.

⁵⁹ "Visa vs. Visa", *Ma'ariv*, May 15, 1997.

⁶⁰ "Visa Survey: Visa and Diners have 55% of the Credit Card Market", *Ha'Aretz*, Feb. 26, 1996. Presumably, this figure refers to the adult population. A similar figure was quoted in: *Ma'ariv*, Feb. 26, 1996, citing a survey by ICC.

⁶¹ "24% Growth in Isracard transactions volume in 1995", *Ha'Aretz*, January 31, 1996.

⁶² "24% Growth in Isracard transactions volume in 1995", *Ha'Aretz*, January 31, 1996.

⁶³ In 1996, GDP per capita in the U.S. was \$27,590. In France it was \$26,290 (78% of U.S. when adjusted to purchasing power); in the UK - \$19,810 (73% of U.S. when PPP-adjusted); in Canada - \$19,200 (78% of U.S. when PPP-adjusted); in Israel - \$15,940 (66% of U.S. when PPP-adjusted). These figures are taken from *The Economist*.

in the U.S., for example) have been issued only a single credit card.⁶⁴ It is therefore rare for an Israeli consumer to have both a Visa and a MasterCard credit card.

This is not a coincidental peculiarity of the Israeli market. The Israeli credit card industry is closely tied to the banking industry, and since each of the largest three banks has a credit card company that is the single member of a credit card network, clients of each bank receive a credit card of that bank's network. Neither credit card company actively marketed its cards to clients of banks other than the bank (or banks) that own it.

Since households usually have only one active account (to which salaries accumulate and from which most day-to-day expenses are paid), members of the household usually have a credit card from the bank's credit card company (ICC for Bank Leumi and Discount Bank clients, and Isracard for Bank Poalim clients). And since each of these companies issues credit cards of two brands (ICC issues Visa and Diners Club; Isracard issues MasterCard/Isracard and American Express), card holders will usually hold at most two credit cards, and more often just one – either a Visa or a MasterCard).

There are exceptions to this. First, the bank is usually able to issue a credit card of the rival network to preferred clients who insist on receiving that card brand. This is rarely requested, though, since it is extremely rare that an Israeli merchant accepts MasterCard but not Visa, or vice versa. Second, any consumer may open an account at another bank and order there a credit card of the other network. This too is rarely done, since it is usually cumbersome to manage two active bank accounts, and, as said above, the added benefit from a second credit card is not perceived as very large.

A third exception regards clients of banks other than the three that have stakes in credit card companies. Some of these banks market exclusively credit cards of one company, while others offer their clients a choice between cards. This might have caused a breakdown of the 'segregation' in the credit card industry, if the remaining banks had a significant market share in the banking industry. They do not.

⁶⁴ According to one estimate, 18% of Israeli cardholders have more than one card in 1996. "The Battle of Plastic Cards", Banka'ut, Volume 9, September 1996. This statistic may even exaggerate the actual use of a second card, as often only one of the cards was linked to the active bank account, while the other was rarely used.

The Israeli banking sector is extremely concentrated. In 1997, Israel had 19 banks, twelve of which belong to one of four banking groups. In comparison, in 1997 there were 9,143 banks in the U.S. Only 66 of the U.S. banks, 0.72% of the banks, had assets in excess of ten billion dollars. Five of the 19 Israeli banks (26.3%) had assets above that threshold. The five largest banking groups in Israel (Poalim, Leumi, Discount, Mizrahi and First International) have 94.6% of the banking industry's overall assets. The two largest banking groups alone (Poalim and Leumi) account for 61.2% of the industry's overall assets.

Israeli banks are not only concentrated, but very large in comparison to the size of the economy. The banking industry accounts for 8.3% of the Israeli GNP (the entire financial sector accounts for 24% of the GNP). A good illustration of the size and concentration of the Israeli banking industry may be the ratio between the assets of the three largest banks and the local GDP. In Israel, that ratio is 112%. To put things in proportions, the same ratio in Japan is 39%, in Germany – 36%, and in the U.S. – 8%. In other words, Israeli banks are (after adjustment for the size of the economy) approximately 14 times larger than their American counterparts, and about three times larger than their Japanese and German counterparts.

These statistics may explain the stability of the segregation of the credit card industry in Israel. The tight connection between banks and credit card companies also explains another trait of the Israeli industry – for all their popularity, credit cards are rarely used for their financial functions. While it is possible to defer payment (and incur interest payments on it, of course), most Israeli cardholders promptly pay their credit card bills, or incur overdraft charges if they do not have enough money in their accounts, instead of opting to defer payment.⁶⁵ In effect, Israeli credit cards are really deferred debit cards, in which the financial function is usually used only for the interest-free grace period.

This may not be surprising when one takes into account that credit cards serve as merely another product of the banks'. With the control they wield over the credit card industry,

⁶⁵ One type of deferred payment that is commonly taken advantage of is interest-free installment payments. These are not features of the credit card, though, but rather are offered by the merchant, and it is the merchant who bears the waiver of interest (the credit card company merely facilitates the merchant's special terms).

they can prevent the financial function of credit cards from cannibalizing their financial operations. A bank that would allow its credit card to offer an interest rate that is lower than the interest rate it charges for overdraft or lines of credit will forego potential profits.

Such a system would not be possible if there was a threat that another credit card company would offer the bank's client a card with lower interest rates (in that case, the client's bank will have to lower either the credit card's or the line of credit's interest rate to face competition from the other credit card company). But the segregated market insulates each bank from such competition, and therefore makes it profitable for them to price credit card financing in a way that effectively strips credit cards of most of their financial function, leaving it to function almost exclusively as a payment system.⁶⁶

One must not neglect to notice the advantages of the close connection between the banking and credit card industries. Banks are in good position to assess and monitor their clients' financial situation, and do it regardless of whether they issue a credit card to their client or not (thus, they utilize what has been a cost sunk into their banking operations). Further, credit card companies in Israel collect directly from the cardholder's bank account (in a similar fashion to debit cards in the U.S., though collection is done once per month for all charges incurred during that month; the lag between transaction and collection is the equivalent to the 'grace period' given by credit cards in the U.S). This reduces the costs of collection and reduces further the risk of cardholder default.⁶⁷

Regardless of whether the benefits of a segregated credit card market outweigh its demerits, that market structure persisted in the Israeli credit card market for decades. The large market share of the three banks owning the two credit card companies has afforded stability to that structure, as mutual deterrence prevented the credit card companies from preying on its rival's clients, and smaller banks could not amass the client base needed to

⁶⁶ Competition over the financial functions of credit cards is not free of flaws in the U.S. as well. See Ausubel, *supra* note 39.

⁶⁷ It is noteworthy that the Israeli credit card industry has a high ratio of premium-card holders: About 20% to 25% of credit cards issued in Israel are "Gold" credit cards ("Inflation in Gold Cards", *Globes*, May 6, 1997; "The Battle of Plastic Cards", *Banka'ut*, Volume 9, September 1996). A high ratio of gold cards may be partially attributed to greater certainty of evaluating the financial ability of the consumer. Of course, it could be attributed to other causes as well; for example, the close connection between the banking and credit card industries may make the issuing of gold credit cards a 'perk' to reward and strengthen the banking relationship.

create another credit card company. During that time, credit cards became one of the banks' most profitable operations.⁶⁸

However, the market structure changed quite dramatically in the final years of the 1990s...

III. Regulatory Intervention in Facilitating Competition

1. Chronology: Steps Towards the Introduction of Competition

Quite naturally, the duopoly (or rather, since the market was so segregated, the two parallel monopolies) in the credit card industry attracted antitrust scrutiny. The Israel Antitrust Authority ("IAA") received several complaints regarding alleged collusion between ICC and Isracard, primarily regarding the setting of merchant fees.⁶⁹ Complaints focused not only on the identical fees charged by both credit card companies, but also on the great discrepancies between merchant fees charged from different merchant groups. Allegedly, while some retailers, such as gas stations, were charged (quite uniform) fees of around 0.8%, coffee shops and other small businesses were charged fees as high as 5%. ICC and Isracard responded that identical prices were a sign of competition pushing fees down to (what turned to be similar) costs, that reports of high merchant fees were exaggerated, that the average merchant fee has gone down dramatically in the past few years⁷⁰, and that that rate is lower than most other countries.⁷¹

After an investigation of the industry, the IAA sent ICC and Isracard letters, informing them of its intent to declare both of them as a "concentration group", which would create a presumption that both were monopolies for the purposes of the Restrictive Business

⁶⁸ "Credit Card Companies Flourish Behind the Scenes", *Ha'Aretz*, April 11, 1996.

⁶⁹ See, for example: "Collusion? Us?", *Mammon Magazine – Ma'ariv*, June 18, 1996; "Consumer's Council to Turbowitz [Then the head of the IAA – A.A.]: Alleged Collusion between Visa and Isracard", *Globes*, Dec. 25, 1996.

⁷⁰ ICC claimed the average merchant fee in 1997 was 2.46% (not taking into account the lower fees paid by supermarket and gas chains), down from 3.06% in 1986. "Visa vs. Visa", *Ma'ariv*, May 15, 1997. Another figure mentioned was a current average fee of 1.9%, down from 2.5%. "Taking the Credit for Themselves", *Kesef*, August 6, 1998.

⁷¹ "Taking the Credit for Themselves", *Kesef*, August 6, 1998.

Practices Act of 1988 (“**RBPA**”), Israel’s principal antitrust legislation.⁷² The IAA’s approach introduced a rarely used clause in the RBPA, which allows under certain situations the application of the monopolies section of the RBPA to members of an oligopoly.⁷³

Meanwhile, other venues of regulation were explored. A private bill was proposed by Knesset (Israeli Parliament) member Avi Yehezkel, requiring all banks to accept any request of a credit card issuer to issue cards to the bank’s clients through the bank’s facilities, subject to exemption from this duty by the Israeli central bank.⁷⁴ Therefore, the bill’s approach (in comparison to the IAA’s proposed actions) was to view the bank’s ability to market credit cards to its client as a ‘bottleneck’ to competition, and to mandate access to it.

Before either antitrust enforcement actions or legislative intervention was completed, however, the market created a third reaction to the lack of competition in the industry: Lured by the large profits made by the three larger banks through their ownership of the credit card companies, Israel’s fifth largest bank, First International Bank of Israel (“**FIBI**”) created in 1997 a new credit card company, named Alpha Card.⁷⁵ Alpha Card applied for membership with the Visa network.

Having a much smaller “installed base” of customers than either ICC (which enjoyed the combined clientele of the second and third largest banks) or Isracard (which catered to the clients of the largest bank), Alpha Card had to recruit clients with accounts in other banks. This required assessing and monitoring the creditworthiness of clients by the

⁷² See: “Antitrust Commissioner Will Limit Activities of Credit Card Companies Visa and Isracard”, *Ma’ariv*, May 15, 1997; “Antitrust Commissioner Expected to Declare ICC and Isracard as a ‘Concentration Group’: Senior ICC Executives questioned for Alleged Exclusivity Agreements with Merchants”, *Globes*, May 18, 1997.

⁷³ We will discuss this issue *infra*, in Part III(2)(b).

⁷⁴ “Avi Yehezkel Attempts to Bend the Banks”, *Globes*, Nov. 27, 1998.

⁷⁵ FIBI owned 67% of Alpha Card, while the remaining 33% were owned by Oreck, an investment group that concentrates in the telecommunications sector.

credit card company itself,⁷⁶ and also required very aggressive marketing. Indeed, Alpha Card began its marketing campaign over a year before it actually began operating.⁷⁷

Alpha Card's lag in entering the market was not due to a marketing strategy, however. It wanted to enter the market as soon as possible. One may speculate as to several reasons for the lag. The relationship between Alpha Card's entry and regulatory action against incumbents may have been a 'chicken and egg' problem. Alpha Card wished to wait for government to take action against incumbents, wanting greater certainty of the new 'rules of the game', and also perhaps not wanting to preempt possible restrictions on its competitors.⁷⁸

But once entry of a new credit card company seemed near, regulators seemed to prefer a 'hands off' approach. The IAA did not proceed with declaring ICC and Isracard as a 'concentration group', and both IAA and the Israeli central bank (which regulates the banking industry) dropped their support of the Yehezkel bill, which was 'frozen' pending the outcome of Alpha Card's entry.⁷⁹

This cannot be a sufficient explanation for the lag, though. Once it was clear that regulators were not going to step in, Alpha had no reason to delay its entry. The likely reason for the continued delay was its need for an agreement with ICC in order to enable Alpha Card's entry.

An interconnection agreement applies only to transactions in which the issuer and the acquirer are different credit card companies. The lack of such an agreement does not preclude such transactions, though: As members of the Visa network, merchants working with ICC were under duty to accept Visa cards issued by Alpha Card even without an agreement between the companies, just as they would accept a Visa card issued by an

⁷⁶ In most cases, the bank branch manager, not the credit card company, was the one assessing and monitoring the financial situation of cardholders. This could happen, of course, only for cardholders who had accounts with the bank that owned the credit card company.

⁷⁷ "Alpha Card Begins a Marketing Attack on ICC", *Yediot Aharonot*, April 14, 1997.

⁷⁸ Shlomo Peiuterkovski, CEO of FIBI, specifically tied between the two at a time when the IAA's decision declaring the incumbent credit card companies as a 'concentration group' seemed imminent. See: "Peiuterkovski: Alpha Card will enter the market – a day after the decision regarding restrictions on ICC and Isracard", *Globes*, 1997 (exact day unknown).

⁷⁹ "Vote Delayed on Bill to Require Banks to Issue All Credit Cards", *Ha'Aretz*, October 20, 1998.

American issuer that has no direct relationship with ICC. That is the heart of the network concept – network members are compatible even without direct agreements between each pair of members. However, domestic agreements (agreements between the network members in one country) are of considerable value.

Without a domestic agreement, transactions in the Visa network are settled by Visa International – an organization controlled by all the Visa members. There are several shortcomings to settling an intra-national transaction through Visa International.

First, all transactions are settled using a single designated currency – usually the U.S. dollar. Since most (if not all) transactions between two Israeli network members would be in Israeli Shekels, each transaction would have to be converted to dollars (to settle it) and then to shekels again (to bill the consumer and pay the merchant). This double conversion causes the amount billed and paid to be different from the amount agreed upon between in the base transaction (since currency rates fluctuate over time and conversions back and forth are done at different times, and since there is a difference between the ‘buy’ and ‘sell’ currency rates, both used in the double conversion).

For example, Consumer, who was issued a Visa card by Alpha Card, buys a fancy pen from merchant for 100 new Israeli shekels, paying with his card. The merchant’s acquirer is ICC. The merchant will present the transaction documentation to ICC, which, since it lacks a domestic agreement with Alpha Card, will present the documentation to Visa International for settlement (just as it would if Consumer was an American tourist using, say, a Citibank Visa card). Visa International will immediately convert the transaction value to the settlement currency, which is likely to be U.S. dollars. Suppose the Shekel/Dollar sell rate (that is, the rate for selling Shekels, which is what converting shekels to dollars actually is) is on that day 2 shekels per dollar. Visa International will bill Alpha Card for \$50 and will transfer the same amount to ICC. Alpha Card bills its cardholders in shekels, so it must reconvert the \$50 charge. Suppose that is done three days later. The Shekel/Dollar buy rate (that is, the rate for buying shekels, which amounts to converting dollars to shekels) is 2.5 shekels per dollar. The consumer is therefore charged 125 shekels.

It is easy to anticipate the dissatisfaction of the parties to the base transaction, to find they are billed and paid based on a different transaction price (or at least the dissatisfaction of the party that ends up on the short side of the reconversion).

The credit card companies could recalculate and reimburse the difference from their own pockets, but it is costly to identify the intra-national transactions from all the transactions processed through Visa International, then find the time the transaction was converted to dollars, find the rate used for the conversion, and convert back at that rate, getting the original base transaction price. Also, the company loses money through these reimbursements. Another option would be to reach an agreement between the domestic companies to provide the needed information or to reimburse each other's payments to consumers. That is, in fact, is the basis of a domestic agreement. But once such an agreement exists, it makes far more sense to short circuit Visa International and settle all charges in shekels in the first place.

A second disadvantage of settling through Visa International is that it does not have any information as to either the terms of the base transaction (except for the price) or of the terms of issuing the credit card involved in the transaction (such as grace periods). Adding such data would make the settlement of numerous transactions between so many different credit card companies very complex, and so encumber the settlement system. But without that data, Visa International is forced to settle immediately, causing the consumer to be billed immediately. It also disregards (out of ignorance) any credit or other benefits the merchant might have agreed to give the consumer.

So, in our previous example, suppose that when Consumer bought the fancy pen, he agreed with the merchant that he would pay for it in three monthly installments, with no interest charged. Suppose also that regardless of these terms, Alpha Card bills the consumer once a month, on the second day of that month, and that consumer bought the pen on the third day of the month, expecting to have a grace period of one month before the first installment is charged.

When Visa International processes Consumer's transaction, it is not aware of all those terms. It processes the transaction immediately, and Alpha Card can't tell that transaction

from the many others it deals with, so it charges Consumer immediately. Three days after consumer became the happy owner of the fancy pen, he finds (if he was diligent enough to check) that though according to the base transaction he should have paid 34 shekels a month from now, another 33 shekels a month later and then another 33 another month later – he was charged 125 shekels immediately.

Again, Alpha card may either attempt to identify and reimburse or reinstate the terms of the original base transaction, but again, this may prove far more costly than creating a separate settlement mechanism with ICC through a domestic agreement.

Domestic agreements, as we have seen, lower the costs of interconnection and therefore make the different systems more compatible, enhancing the network externalities. But the benefits of that may not be distributed evenly – a larger system confers more value to a small system it interconnects with, than the value it receives from interconnecting to the smaller system. A mirror image of that is that the larger system isn't harmed as much by denying interconnection than the smaller system is.

For example, if 95% of Visa cardholders and Visa-accepting merchants work with ICC, and only 5% work with Alpha Card, then on average, only one in 20 transactions an ICC cardholder would make would be a 'bad' cross-company transaction. An Alpha cardholder would have such transactions in 19 of 20 cases. Therefore, an ICC cardholder (and in the same way – a merchant working with ICC) will be damaged less by the lack of interconnection than an Alpha Card cardholder (or merchant).

Many might abandon Alpha Card just to reduce the chance they encounter that problem. The greater the costs of cross-company transactions (i.e., the lesser the compatibility between the systems), the more likely it is that we will see the market 'tip', as merchants and cardholders abandoning Alpha Card make the disadvantage even greater for those remaining in the shrinking network.

This may explain why ICC could have an incentive for 'foot dragging' as it negotiates a domestic agreement with Alpha Card. It also gives rise to an argument calling for government intervention in facilitating the agreement, either to prevent the market from

tipping (if the new, smaller competitor had begun to operate) or to enable the entry of the new competitor (if it finds it impractical to enter without a domestic agreement).

Before discussing the main issues in the domestic agreement, we will examine the legal framework for regulatory intervention, and various possible paths the regulator could have taken in our case. We will then proceed to examine the path taken.

2. Regulatory Intervention in Facilitating Competition

(a) **Substantive Regulation of the Credit Card Industry:** The principal legislation specifically regarding credit cards is the Charge Card Act of 1986. That act is a mainly focused on consumer protection matters. Regulation of the credit card industry is generally not separated from regulation of banking activities, which is done by the Commissioner of Banks in the Bank of Israel, the Israeli central bank. The office of the Commissioner of Banks accepts and investigates complaints regarding activities of credit card companies, as it would other activities of the banking sector.

The main purposes of banking regulation are assuring the financial stability of banks and protecting consumers. While facilitating competition in the credit card industry has little to do with the first goal, it is well within the bounds of the second goal. It is therefore plausible that, if regulation was to be used to induce competition, it would be proper for the Commissioner of Banks to administer such intervention.

Indeed, the Yehezkel bill mentioned above took this approach, essentially creating a general rule of mandatory access to banks' marketing functions, but allowing the Commissioner of Banks to make exceptions to that rule (and, inclusive in that power, enabling the Commissioner to condition his exceptions, practically enabling the Commissioner to fine tune the industry structure). The Yehezkel bill was never enacted, though, and it was the IAA, not the Commissioner of Banks, that took the lead role in regulatory intervention to facilitate Alpha Card's entry.

The choice between antitrust and substantive regulation as the proper tool to regulate a network industry is not an obvious one. Picker notes that while regulation by antitrust law can better tailor a solution to the needs of a situation, it is often (unlike substantive regulation) precluded from addressing the monopoly problems posed in a network industry, since only monopolization, not the monopoly itself, is deemed an antitrust violation that may afford remedy.⁸⁰ Yet, all monopolies – even those thrust upon the monopolist or inevitably created – produce dead weight loss and other monopoly-related ills (such as lower incentive to innovate).

Israeli antitrust law suffers less from that constraint than its American counterpart. The anti-monopoly provisions of the RBPA follow the European Union monopolies law: Section 29A, which amended the RBPA in 1996, is worded very similarly to section 82 (then, section 86) of the Treaty of Rome, prohibiting abuse of dominant position. Israeli case law acknowledged the dominant role of EU anti-monopoly law in interpreting the Israeli Section 29A.⁸¹

Israeli law followed EU competition law in finding that, while being a monopolist is not an antitrust violation, abuse of dominant position is.⁸² Abuse of dominant position does not require as much as does monopolization.⁸³ Further, Section 30 of the RBPA (as amended in 1998) authorizes the Antitrust Commissioner to issue to a monopolist orders deemed necessary to prevent it from harming competition.⁸⁴ Such orders may be issued if harm is expected to follow from a monopolist's conduct (which may also be a Section 29A abuse of dominant position), but also if harm was actually caused by a monopolist's **existence**.⁸⁵ The latter option has been introduced in the 1998 amendment, and its scope has yet to be defined. It is, most likely, broad enough to put antitrust regulation on equal

⁸⁰ Picker, *supra* note 2, at pp. 8-11.

⁸¹ B.S. 18/96 (Mon. 2/96) *Yediot Aharonot v. Antitrust Commissioner*, 26(5) Dinim (District Ct.) 517.

⁸² *Yediot Aharonot v. Antitrust Commissioner*, *id.*; Mon. 1/93 *Antitrust Commissioner v. Dubek*, 2 Ha'Hegbelim Ha'Yiskyim 194.

⁸³ Regarding EU competition law, see: Case 27/76 *United Brands Company & United Brands Continental BV v. Commission*, [1978] ECR 207.

⁸⁴ The orders are subject to de novo judicial review.

⁸⁵ The amended Section 30 is considered a less restrictive alternative to Section 31, which allows a court to order the break up of a monopoly, if its existence harms the public substantially, and (it is explicitly mentioned) there is no way to eliminate the harm through issuing orders under Section 30.

footing with substantial regulation regarding the ability to address permanent competitive harms flowing from the existence of a monopoly.

We will now follow some of the antitrust issues that open might justify government intervention in the credit card industry.

(b) Antitrust – Incumbent’s Abuse of Dominant Position: The RBPA’s Chapter D, which contains the anti-monopoly provisions, applies only to an monopolies, as defined in Section 26(A) of the RBPA. Unlike the European Union’s equivalent – the ‘dominant position’, which is defined broadly and inexactly, the RBPA uses a mechanical test of market share – a firm is deemed to be a monopoly if it has a market share of above 50% of a properly defined market, and is not a monopoly if it does not reach that share.⁸⁶ This analysis does not expressly consider barriers to entry, but these may have much relevance in identifying the relevant market.

Off the bat, one can think of three possible market definitions that would include ICC. The first, and broadest, is that of all payment systems. The second is that of credit card payment systems. The third is the specific network in which ICC operates – the Visa network. Geographically, the proper definition would include the entire state of Israel, but would not extend further, since (as we saw) international credit card transactions, while possible, are more costly and cumbersome than domestic transactions. The business operation patterns also support that assessment, as most credit card companies operate within national borders.⁸⁷

The issue of the proper market definition has been regarded by American courts: In *NaBanco*⁸⁸, the appellants claimed the credit card industry should be divided into three separate markets: That of issuing, that of merchant servicing, and that of interchange

⁸⁶ There is a procedure for setting a lower threshold than 50%, but this procedure was only attempted once, and failed that time. As we mentioned before and will regard again below, a firm may be regarded as a monopolist even if its market share is below 50%, if it is part of a ‘concentration group’ with a combined market share of above 50%.

⁸⁷ There is a growing trend of globalization of payment systems, but that trend is still in its infancy. On that trend, see: T. C. Baxter & J. H. Freis, *Fostering Competition in Financial Services: From Domestic Supervision to Global Standards*, 34 New England L. Rev. 57.

⁸⁸ *National Bancard Corp. v. Visa U.S.A.*, 596 F.Supp. 1231 (S.D. Fla. 1984), *aff’d* 779 F.2d 592 (11th Cir. 1986).

services. The court rejected that argument, and found that the proper market definition was the very broad market of all payment systems. A somewhat narrower but still broad definition may be implied from *The Treasurer*⁸⁹, which regarded ATM networks (another financial network), and found that the market included not only competing networks, but ATMs not connected to networks, and banks that have yet to install ATMs.

The broad market definitions were abandoned for a narrower one by the court in *SCFC*⁹⁰, where the proper market definition was found to be that of Bank Credit Cards. Indeed, noting the obvious differences in functions as well as the significant difference in costs per transaction,⁹¹ it seems that the interchangeability between credit cards and other payment systems may be sufficiently low as to enable exercising market power in the credit card industry without having any power in other payment systems.

Accepting that market definition, the Israeli credit card market prior to Alpha card's entry had two competitors – ICC with a market share of slightly above 50%, and Isracard with a market share slightly below 50%. It follows that ICC would be regarded as a monopoly, while Isracard would not. That would not fit the economic reality, since not only ICC, but Isracard as well seemed to possess market power.⁹² Section 26(D) of the RBPA provides for such situations, by stating that a firm that belongs to a concentration group with a combined market share of above 50% is also considered a monopolist. A 'concentration group' is defined as a group of firms that do not compete or that compete very little – the common case in an oligopoly. As we mentioned above, the IAA pursued this venue, and prepared to declare ICC and Isracard as a concentration group, an act that (subject to judicial review of the declaration) would apply Chapter D of the RBPA to those firms. As we discussed above, after applying Chapter D, the IAA could use its powers under Section 30 to issue orders to the firms, correcting harms caused by their existence as monopolies or harms that may be caused by their actions. It could also either file charges or a civil suit for abuse of dominant position, provided it could point to an action that consists of an abuse.

⁸⁹ 682 F.Supp., *supra* note 44.

⁹⁰ 819 F.Supp., *supra* note 44.

⁹¹ See *supra*, main text regarding footnotes 28-29.

⁹² It is quite likely that both would have been considered a 'firm in a dominant position', as the EU competition law offers a less formal test.

An in depth discussion of the plausibility of actions under Section 30 (issuing orders) or 29A (abuse of dominant position) is unnecessary, since the IAA did not proceed to declare the concentration group, preferring instead to facilitate Alpha Card's entry as a cure to the competitive problems of the industry.

Another approach may also be taken if we accept a narrower market definition. A market definition of a single credit card network does not make sense in the U.S. market structure, but may accurately portray the market power in the Israeli market before Alpha Card's entry. Since few Israelis had been issued credit card by both networks, most consumers were effectively locked in to the credit card of the network owned by the bank in which they had their active account. These locked-in customers were divided roughly evenly between ICC and Isracard.

Therefore, a merchant who wished to discontinue its membership with one of the networks, or not to join the network in the first place, lost its ability to do transactions by credit card with approximately half of his customers. It was unreasonable to believe that these customers will replace their credit card with one of a competing network, even if a significant number of businesses stopped accepting their credit card, since changing a credit card meant changing the bank with which they held their active account (and such change entails significant costs, such as reputation built over time and convenience). Knowing that, credit card companies had little incentive to compete by cutting prices. Each was, one may claim, well protected in its own separate market by the high costs of changing a bank that were required to change a credit card.

If that is a correct assessment of the market realities, then it may be proper, in these circumstances, to define the market very narrowly to a single credit card network (or, alternatively, to all the credit card networks owned by the same bank or group of banks. Under this definition, both ICC and Isracard had market shares of 100%.

Again, delving into the question of applying Chapter D would be unnecessary, as the IAA chose instead to intervene through Chapter B – that deals with restraints of trade – to facilitate Alpha Card's entry.

(c) Antitrust – The Agreement as a Restraint of Trade: Unlike American antitrust law, which defines ‘restraints of trade’ narrowly, but prohibits them with no possibility for redemption, the Israeli law takes an opposite approach – defining restraints of trade broadly but then creating paths to permit these restraints of trade. Section 2 of the RBPA defines restraints of trade very broadly; a restraint of trade is defined as any agreement (whether legally binding or not) that is done between persons conducting business, in which at least one of the parties limits itself in a manner that could prevent or diminish competition between it and other parties to the agreement or between it and a third party. Note that an agreement is a restraint of trade if it limits competition between two persons, even if this limitation actually helps overall competition in the market (or, as is the more common case, does not affect overall competition in the market). Thus, if two small groceries, surrounded by another hundred competitors, agree to a joint venture that will diminish competition between them, they will be considered parties to a restraint of trade.

Further, Section 2 continues to create cases of ‘per se’ restraints of trade (which are not necessarily per se illegal, since they may be approved), for agreements that regard the price of a product, the profit made, a division of the market, or the quantity, quantity or type of products or assets in the business.

A restraint of trade may be approved by the antitrust tribunal under Section 9 if the tribunal finds the agreement in the public interest. A restraint of trade may also be approved by the Antitrust Commissioner⁹³ (in a shorter, administrative procedure) under section 14, if the agreement affects harms competition only insignificantly.⁹⁴ Both tribunal and commissioner are allowed to condition their approval.

Under the broad definitions above, any interconnection agreement will be considered a restraint of trade, as it coordinated the very heart of the business of both parties to the

⁹³ Formally, the Commissioner may exempt parties from the need to request the tribunal’s approval, so the Commissioner’s action is an exemption, not an approval. Substantively, there is no difference between the two actions. The difference between both procedures is in the narrower circumstances in which the Commissioner is allowed to exempt.

⁹⁴ An amendment to the RBPA from this year (2000) broadened the Antitrust Commissioner’s authority to approve restraints of trade, to include all non-naked restraints which either do not limit a significant share of the market or that do not significantly harm competition in the market. The amendment also authorized the Antitrust Commissioner to issue block exemptions, as does the EU commission under section 81(3) of the Treaty of Rome.

agreement. Indeed, the parties to the agreement filed a petition with the IAA to receive an exemption (approval) for the agreement under section 14 of the RBPA.

Harm to competition may be negligible (in fact, competition will be enhanced) if the interconnection agreement enables a new firm to enter the network on equal footing. But the agreement could be used to harm competition as well, by facilitating collusion between the competitors, or by coercing the entrant into a position in which it cannot effectively compete (thus both eliminating the threat of from the entrant and providing a warning for future entrants).

Therefore, the Antitrust Commissioner had the authority to exempt the agreement, under conditions that would ensure the agreement would serve proper pro-competitive ends. That was the path taken; on July 7, 1988, after lengthy negotiations, an interconnection agreement was signed between ICC, Alpha Card, and their owners, and an exemption to that agreement was granted by the Antitrust Commissioner for a period of four years,⁹⁵ subject to detailed conditions.

We will now focus on the main issues in the interconnection agreement and the conditions to its exemption.

3. Key Issues in an Interchange Agreement

(a) **Interchange Fees:** A crucial aspect of the interconnection agreement, as well as an important focus of competitive concerns, was the issue of interchange fees – the fees that the acquirer would pay the issuer.⁹⁶ Part of this issue's importance is obvious – for the issuer, this is a main source of income (significantly larger than the income derived from

⁹⁵ Under the RBPA, all exemptions and approvals of restraints of trade must be limited in time. There is no bar to renewal of approval or exemption, though, so an agreement may be approved or exempted time and time again (each time for a limited duration).

⁹⁶ Much literature regards the role and effects of interchange fees. See: Frankel, *supra* note 33; Carlton & Frankel, *supra* note 2; David S. Evans & Richard Schmalensee, *Economic Aspects of Payment Card Systems and Antitrust Policy Toward Joint Ventures*, 63 Antitrust L.J. 861 (1995); Dennis W. Carlton & Alan S. Frankel, *The Antitrust Economics of Credit Card Networks: Reply to Evans and Schmalensee Comment*, 63 Antitrust L.J. 903 (1995).

cardholders by membership fees, issuing fees, etc.). For the acquirer – this is a significant expense.

But interchange fees have an even greater role in affecting competition, since they create a floor for the merchant fee rate charged by the acquirer. In any transaction in which the acquirer is not also the issuer, the acquirer must pay the issuer the interchange rate. If the merchant fee is priced below the interchange fee, not only doesn't the acquirer recover its cost and make a profit, but it actually receives negative revenues. Therefore, a prudent acquirer will rarely, if ever, set its merchant fee lower than the interchange fee plus a charge to cover its expenses.

The parties have different interests regarding the height of rates. Since the incumbent begins by controlling all or most merchants, it would prefer a high interchange fee, which would facilitate a high merchant fee and hinder attempts of price competition by the entrant. The entrant, on the other hand, would like to keep interchange fees low (possibly, for an initial period, below cost) in order to capture a significant market share through aggressive price competition. Acquiescing to a high interchange, high merchant fee system before it gathers a significant share would minimize its long run profits, and, if it does not manage to capture a market share sufficiently above the minimum efficient scale- the entrant would be eventually driven out of the market.

Not only the average rate, but also the structure of all the interchange rates, affect the industry's structure and may be of competitive concern. Since they are significant to the credit card companies' income, the structure of interchange fee rates gives important incentives to the companies. Unlike the example given in the beginning of this paper, interchange fees are rarely set at a single rate for all transactions.

Prior to Alpha card's entry, merchant fees varied widely based on the merchant's type of business. Indeed, there is some sense in varying the fee according to the industry involved. Some of the costs of credit card system operation are costs of fraud and default. The risk of these is smaller when transactions are many and small, than when they are few and of high value. Therefore, a business characterized by many small purchases, such

as a gas station, would be relatively safer, hence less costly, to service than an industry with few expensive purchases, such as a jewelry store.

But the variance of fee rates was far wider than the estimated risk difference could be, and the industry groupings did not seem to indicate that pattern. For example, a supermarket and small grocery stores (and, in fact, restaurants as well) are characterized by many small transactions. Yet supermarket chains were charged very low fees, well below 1%, while grocery stores were charged significantly higher fees, and restaurants were among the businesses charged the highest fees, sometimes as high as 4% (and some claim even higher rates).

A pattern of very low rates for gas and supermarket chains, relatively low rates for utilities and government, and very high rates for small businesses, may indicate a strategy of pricing low for businesses that might find it profitable otherwise to create their own retail cards. A gas chain offers many locations in which a consumer can use the card, therefore making the card attractive. On the other hand, a restaurant has a single location, and it is common to vary restaurants, and not to return constantly to the same one. Therefore, a retail card from a restaurant is of relatively less value.

Consequently, a possible explanation for the rate structure of the merchant fees (with a single firm in the market, interchange fees were meaningless) is an attempt to ‘limit price’ to those industries that would otherwise create competing payment card systems.^{97,98}

It is likely that the incumbent, wanting to cause minimal disruption to its current merchant fee rates, would structure the interchange fees in the same way – setting rates to different businesses at the same ratios as were the merchant fees. Since, as we discussed above, interchange fees are floors to the merchant fees, such an interchange fee structure

⁹⁷ In a sense, the incumbent credit card company was ‘Ramsey pricing’, since it charged less from merchants that had more flexible demand. If pricing had been set below cost, this would be inefficient, though, as it would give the merchants the wrong price signal, and prevent efficient introduction of retail cards.

⁹⁸ One of the rate structures that would price according to risk would be setting the interchange fee depending on the method of transacting: paper transactions without on-line approval are more susceptible to fraud, and should be charged a higher rate than transactions certified on-line with the issuer.

might prevent ‘cream skimming’, and be the backbone that supports the old merchant fee structure even after competition precluded unilateral setting of such fees.

In the long run, the entrant has the same incentive as the incumbent in preventing competition from retail cards. However, the point we discussed about average rate levels holds true for rate structure as well – in the short term the incumbent wants to capture market share by ‘cream skimming’ – offering businesses that are on the subsidizing side of the cross-subsidies service for a price close to cost. An interchange fee of the sort discussed would frustrate such cream skimming.

The compromise reached by ICC, Alpha Card and the IAA distinguished between three periods, and created a mechanism for determining the rates in each period. During the first period, Visa International would conduct a cost study to ascertain the costs involved in issuing and acquiring in the Israeli market, and would recommend interchange fee rates and rate structures. Visa International’s recommendations would become effective only upon the approval of the Antitrust Commissioner.

In the first period, beginning on the day of Alpha Card’s entry and ending when the cost study recommendations are approved, the parties would charge interchange fees based on the merchant’s line of business, and that the fee rate would be such that the average merchant rate would be at the same level as it was just before the agreement. However, the cost study will determine a new average fee, and the parties will retroactively reimburse each other for the changes between the actual average fee used and the recommended average fee (by adjusting pro rata each of the rate categories by the proportion between the actual rate used and the recommended rate).

In the second period, beginning when the cost study is approved and ending 18 months later, the categories of rates will remain as they are, but the rates for each category will be determined by the cost study. The second period serves to allow the merchant fees to adjust, by changing the fees but not the fee groups.

After the second period, the interchange rates would be set as recommended in the cost study and approved, “based on categories as determined in the cost study”. This is likely

to be taken to mean categories substantially different from an industry-based classification that might reduce incentives to create retail card systems.

This arrangement enabled the initiation of competition, and resulted in reduced interchange fees that allowed for lower merchant fees.⁹⁹ However, structural changes that resulted from the interconnection agreement required subsequent modification of the arrangement.¹⁰⁰

(b) **Operations:** Much of the interconnection agreement deals, unsurprisingly, with operational issues of interconnection, times and methods of transferring information regarding transactions and standards of confirmation of a transaction by merchants, physical connections of the systems, and rules for chargebacks (the right of an issuer to refuse to pay when the merchant did not follow standards set by the issuer).

The exemption conditions set prohibitions of discrimination: An issuer may not discriminate between acquirers, and may not discriminate between merchants based on the identity of their acquirer. An acquirer may not discriminate between issuers, and must provide on a timely basis to the issuers certain transaction related information. An acquirer may not prevent an issuer from connecting to the acquirer's systems at a merchant's premises.

Also, the conditions prohibit acquirers from entering into exclusivity agreements or "loyalty rebates" (which have a similar effect, replacing legal constraints with financial incentives) with merchants. These restrictions facilitate easier switching between acquirers, and therefore prevent the incumbent from foreclosing the merchants.¹⁰¹

⁹⁹ The average interchange fee, as of April 2000, was 1.38%. "The Powers Begin to Balance", *Ha'Aretz*. April 16, 2000. Before the agreement interchange fees were not meaningful, as only one firm operated in the network.

¹⁰⁰ See *infra*, Part IV.

¹⁰¹ There is considerable debate about the plausibility of such foreclosure. See: Michael H. Riordan & Steven C. Salop, *Evaluating Vertical Mergers: A Post-Chicago Approach*, 63 *Antitrust L. J.* 513; Eric B. Rasmusen, J. Mark Ramseyer, & John S. Wiley, *Naked Exclusion*, 81 *Am. Econ. Rev.* 1137; Christodoulos Stefanadis, *Selective Contracts, Foreclosure and the Chicago School View*, 41 *J. of L. & Econ.* 429; Robert Bork, *The Antitrust Paradox* (1993), at p. 299-309; Herbert Hovenkamp, *Federal Antitrust Policy* (1994), ¶ 10.8a.

Finally, the conditions include a framework for instating antitrust compliance programs and antitrust compliance officers in each of the parties to the agreement, in an effort to create accountability to antitrust responsibilities.

(c) **Prevention of Degradation:** Closely related to operational matters yet much harder to address in an interchange agreement is the issue of preventing degradation. Shortly after the interconnection agreement was completed and Alpha Card began operating, it experienced difficulties in its settlement of cross-firm transactions with ICC. According to Alpha Card's allegations, ICC processed the cross-firm transactions in a slow and error-prone manner.¹⁰² Assuming these allegations were true, an ICC cardholder using her credit card at a store that worked with Alpha Card, and an Alpha Card cardholder using his credit card at a store that worked with ICC, were much more likely than average to discover errors in the transaction. Merchants in the same situations would suffer a delay in receiving payment for the purchases, while the transactions were processed or corrected. ICC claimed that any delays were non-intentional, and resulted from the added complexity of cross-company transaction settlement (which did not exist before, when the Visa network contained only one company. Alpha Card did not allege fraud – i.e., that the errors were skewed in favor of ICC merchants or cardholders. Nonetheless, even if the errors and the sluggishness of transaction settlements affected cross-company transactions randomly, Alpha Card was disproportionately hurt. Since it had a much smaller share than ICC of both merchants and cardholders, more transactions of both its merchants and its cardholders were cross-company transactions. To illustrate, suppose that ICC had a market share of 95% of both merchants and cardholders. An ICC cardholder using her credit card at a store had a 95% probability that the merchant would also work with ICC (corresponding to ICC's market share), so there was only a 5% probability that a transaction would be cross-company. An Alpha Card cardholder, on the other hand, had only a 5% probability that the merchant would work with Alpha Card (corresponding to Alpha Card's market share), so there was a 95% probability that the

¹⁰² To the author's knowledge, there is no court or administrative finding regarding Alpha Card's allegations – neither a finding validating these allegations nor one discrediting them. This paper will explain why such a strategy would be sensible for ICC to undertake, but it does not make any factual claim regarding Alpha Card's allegations.

transaction would be cross-company. The same holds for merchants working with each credit card company.

Thus, increasing the costs (or the confusion) involved in settling cross-company transactions harmed Alpha Card disproportionately more than it did ICC. Indeed, if Alpha Card's allegations are true, ICC's behavior can be classified as a strategy known as degradation. What is degradation and what are its results?

As we mentioned above,¹⁰³ the larger firm in a network industry has less of an incentive to be part of the same network as the smaller firms.¹⁰⁴ If the large firm has already reached the peak of network effects at its current size,¹⁰⁵ the addition of smaller competitors into the network would only reduce its utility (e.g., by causing congestion on the network).

Even if network effects have not peaked and the large firm still gains network benefits from adding smaller rivals into the network, the benefits it gains are not as large as those gained by the smaller firms. Since the large firm and the smaller firms are rivals, the small firms' gain is the large firm's loss, and that loss may be greater than the large firm's gain from the increased network effects.

Therefore, the large firm might not only be less enthusiastic about being in the same network with its smaller rivals – it might be opposed to this idea. If it can simply refuse

¹⁰³ *Supra*, Part III.1 (at pp. 25-26).

¹⁰⁴ See, e.g., Joseph Farrell & Garth Saloner, *Installed Base and Compatibility: Innovation, Product Preannouncements, and Predation*, 76 Am. Econ. Rev. 940, 954 (1986) ("Large firms plausibly care less about compatibility with smaller rivals than vice versa..."); Jacques Cremer, Patrick Rey & Jean Tirole, *Connectivity in The Commercial Internet*, 48 J. INDUS. ECON. 433 (2000).

¹⁰⁵ Like normal (supply-side) economies of scale, network effects (i.e., demand-side increasing return to scale) are usually reduced and might even reverse above a certain point. At a point, they may become "**network defects**" – a net disutility from an increase in the number or volume of users of the network good. Reasons for this reversal may include congestion on the network, or relative advantages of one system over another that have to be sacrificed to ensure compatibility. In addition, the connectivity that enables the flow of positive externalities also enables the flow of negative externalities. For example, a computer virus that exploits a loophole in Microsoft Outlook is much more dangerous when most people use that program (and therefore become infected and subsequently infect others). Similarly, the interaction between people that is the source of network benefits in a social network is also the channel by which communicable diseases spread; tighter social connectivity results in faster and more harmful communication of diseases. Indeed the recent SARS epidemic demonstrated the importance of quarantining (a social network's form of reduction in network connectivity). On 'network defects' see Amitai Aviram, *Regulation by Networks*, 2003 BYU Law Review 1179, 1201 (2003).

to be in the same network with the rivals, it would. If it cannot – perhaps because of a regulatory decree or a physical constraint – it would reduce the quality of its connection, so as to make transactions within the firm less costly than transactions between the firm and smaller rivals. This strategy is called degradation.¹⁰⁶

The following example illustrates the concept of degradation:¹⁰⁷ Goliath Corp. is a telephone company with a 70% market share. Goliath makes modifications to the facilities connecting it with other telephone companies, so that any call between a customer of Goliath and a customer of a competing company suffers from static noise. Calls in which both parties are Goliath customers and calls not involving Goliath customers, are not affected. Betty is a customer of David Inc., a small competitor of Goliath. Approximately 70% of the people she calls are Goliath customers, correlating with Goliath's market share. This means that if she remains a customer of David, 70% of her calls will suffer from static noise. If she switches from David to Goliath, static noise will affect only 30% of her calls, those to non-Goliath customers. Therefore, Betty is likely to switch to Goliath. This is precisely the reason Goliath adopted a strategy of degradation. Though the quality of its service suffers from the degradation as 30% of the calls are of lower quality than before -- it hurts the quality of the competitors' services much more as 70% of their calls are affected, in our example. The migration of customers to the larger network compensates it for the loss resulting from the reduced quality of its own service caused by the degradation.

The analogy to the credit card industry is clear: ICC could not refuse to allow Alpha Card to enter the network, as such refusal would likely result in either antitrust or regulatory enforcement action. Instead, ICC could choose to reduce the 'quality' of cross-company transactions, in the same way that Goliath reduced the quality of cross-company phone calls. In telephony, one way of reducing quality is by introducing static noise in cross-company phone calls; in the credit card industry, reduced quality can be achieved by being slower and committing more errors in settlements of cross-company transactions. The results are similar. Since, as we explained above, an Alpha Card merchant and

¹⁰⁶ See Cremer, Rey & Tirole, *supra* note 104

¹⁰⁷ This example is taken from Aviram, *supra* note 105 at 1212-1213.

cardholder have more cross-company transactions than their counterparts who are ICC customers, they will likely suffer more errors in their credit card transactions than their counterparts who work with Alpha Card. Even if they know that ICC is responsible for these errors, they would be better off taking their business to ICC. Thus, while ICC's customers would be somewhat harmed by a policy of degradation, Alpha Card customers would be more severely harmed, resulting in a migration of customers to ICC.

Strategies of degradation have been alleged in other network industries, and particularly in the U.S. telecommunications industry.¹⁰⁸ Degradation is a hard strategy to deter. First of all, it is hard to define. There are an infinite number of ways a creating manager can envision to degrade. It is hard to think of a contractual term that could be included in the interconnection agreement and that would prevent (if enforced) any form of degradation. One can use broad language, at the cost of litigating whether a specific behavior violated the broad standards. Or one can define specific types of behavior (e.g., specify the number of errors that may reasonably occur, the amount of investment in cross-company transaction settlement facilities, etc.) and challenge the larger companies management to find a loophole in the language. If degradation is feasible, it may even make sense for the degrading company to do so even when it may be in violation of the interconnection agreement, since the injured company might be irreparably harmed (or disciplined into tacit collusion) while the matter is litigated.

Second, degradation is hard to detect. Even if the physical manifestation of it (e.g., static noise, error-prone accounting, etc.) is attributable to the degrading party, it can often be

¹⁰⁸ See, e.g., *Cavalier Telephone, LLC v. Verizon Virginia, Inc.*, 208 F. Supp. 2d 608, 611-12 (E.D. Va. 2002) (Entrant phone company alleges, among other things, that incumbent mis-routed its calls, provided inferior databases and web-based interfaces for ordering loops or last-mile facilities, made the process of ordering last-mile facilities (which it controlled) "lengthy, complex, and expensive," and intentionally made the billing process for loops costly for its competitors); *Goldwasser v. Ameritech Corp.*, 222 F.3d 390, 395 (7th Cir 2000) (customers of incumbent telephone company allege, among other things, that incumbent "has failed to provide interconnection between its network and those of competitors that is equal to the interconnections it gives itself," that incumbent's competitors "have experienced undue delays (presumably caused by Ameritech) in acquiring unbundled elements, and those delays have precluded them from offering services as attractive as [the incumbent's]," and that incumbent "has continued to bill customers of competitors who have converted from Ameritech's services, and hence some customers are being double-billed, thereby harming the competitors' good will").

masked as a technical difficulty.¹⁰⁹ Even if it is shown to be intentional, there may be an economic justification to it. As we said, network effects peak at some point. Forcing interconnection with a rival when transacting volume is past that peak would be inefficient (e.g., forcing the connection of a phone company to a rival's network, when that network is already congested). Furthermore, mandating that a company allow its rivals access to its network infrastructure would decrease investment in network infrastructure, as each company would suspend investments and hope to free ride on rivals' investments.

Third, private legal systems – institutions that enforce norms without the aid of the public legal system¹¹⁰ – are often helpless to punish a degrader even if they detect the degradation. Private legal systems have several tools in their arsenal to punish norm violators. The most powerful of those tools is exclusion from the network. In the Visa credit card industry, the governing private legal system is that of Visa International. The organization can arbitrate and settle disputes between its members. For example, suppose that ICC proved to Visa International that a Visa-brand credit card company from Ruritania had refused to pay ICC an amount the Ruritanian company owed. Visa International could threaten the Ruritanian company that if it did not pay the amount due, it would be excluded from the international Visa network. This would result in losing all its transactions with other Visa-brand companies, a sanction that is likely induce the Ruritanian company to comply with Visa International's dictate.

The exclusion sanction (indeed, all of the private legal system's sanctions) are not as effective to a firm that degrades connectivity. A degrading firm might not be intimidated by a threat of exclusion; in fact, it might welcome it. If it is interested in denying its rivals of its network effects, exclusion is precisely what it wants. In that case, the exclusion is more harmful to the other network members than it is to the excluded party

¹⁰⁹ Because degradation is more feasibly the larger the degrading firm and the smaller the rivals, it is particularly likely to happen in markets that have been absolute monopolies and are now facing, for the first time, a second firm in the industry. Thus, the incumbent may actually have to form cross-company connections for the first time, and this effort might run into some technical difficulties. Identifying those unintentional difficulties from an intentional strategy of degradation is hard, if not impossible.

¹¹⁰ On the mechanisms private legal systems use to enforce norms see Aviram, *supra* note 105, at 1204-1211.

(that is the reason the excluded party wishes to degrade in the first place), and thus the private legal system's threat to exclude is not credible.

Despite this analysis, punishment by the private legal system in our present case study might not be so difficult: ICC may have an incentive to degrade against Alpha Card, but not against all the foreign Visa-brand companies. Losing all of its business with foreign Visa-brand companies is likely to impose a greater cost than the benefit that would amount from degrading against Alpha Card. Thus, a threat by Visa International to exclude a degrader from the Visa network is likely to deter ICC from degrading, unless it can do so undetected, or otherwise avoid punishment.

IV. Evolution of the Credit Card Industry after the Interconnection Agreement

ICC had much warning time of Alpha Card's entry,¹¹¹ and prepared to face the competition.¹¹² Once the agreement was signed and Alpha Card began operating, it cut merchant fees by about 20%, and cancelled cardholder annual fees on its cards.¹¹³ It also offered very attractive interest rates on credit.

Bank Leumi reacted strongly, immediately matching Alpha Card's terms.¹¹⁴ Grudgingly, Discount Bank and then Isracard and Poalim matched the terms as well. Alpha Card was termed by one paper "The mouse that roared".¹¹⁵

¹¹¹ It is worthy to note, in assessing competitive issues in entry into a network industry, the added competitive concern caused by the incumbent's early warning of an impending entry. This early warning may have anticompetitive effects even if an open access duty exists, since negotiations on interconnection, or litigation of interconnection disputes, are often less than speedy. On 'early warning' as an anticompetitive characteristic see: *Hospital Corp. of America v. FTC*, 807 F.2d 1381, 1387 (7th Cir. 1986).

¹¹² "ICC Will Hand Merchants Benefits – Preparing for Competition in Credit Cards", *Globes*, May 14, 1998; "ICC Preparing for Alpha Card by Enhancing Merchant Loyalty", *Ha'Aretz*, May 14, 1998; "ICC: Alpha Card Attempted to Collude With Us Against Consumer's Benefit", *Ha'Aretz*, May 25, 1997.

¹¹³ "The Credit Revolution Has Begun", *Ha'Aretz*, August 4, 1998. Until then, it was common for the bank to waive or partially waive annual fees for the first year of a new cardholder, but rarely more than that.

¹¹⁴ "Bank Leumi Will Waive Fees for Clients of ICC and Diner's", *Globes*, August 12, 1998; "Bank Leumi Fights Back: Abolishes Fees for ICC Cards", *Ha'Aretz*, August 12, 1998.

¹¹⁵ "The Mouse That Roared", *Ha'Aretz*, August 12, 1998.

Soon, newspapers filled with reports on the lost profits of the large banks.¹¹⁶ Alpha Card, however, was hit hardest. The immediate reaction of the other banks slowed its growth considerably, while the significantly smaller client base put it at a diseconomy of scale. In 1999, Alpha Card lost 160 million NIS (more in absolute terms than the estimated lost profits of the larger credit card companies), with cumulative losses of 260-300 million NIS (Approximately \$65-75 million).¹¹⁷ Alpha Card found itself forced to raise merchant fees to levels that were sometimes close to the pre-competition situation.¹¹⁸

But the market structure seemed to change permanently, perhaps most dramatically from a relatively unexpected direction: One of the conditions the Commissioner made in exempting the agreement required that, beginning on 31.12.1999, an issuer would not have a business interest in an acquirer in which another issuer has a business interest, unless permitted by law or by the Antitrust Commissioner. This condition affected ICC, which was owned by two issuers – Bank Leumi and Israel Discount Bank.¹¹⁹ The condition in effect required one of the owners to sell its interest in ICC.¹²⁰

Since Leumi was significantly larger than Discount and had a larger stake in it (65% vs. 35%), it was predicted that Discount will sell its shares to Leumi, and then perhaps join Alpha Card.¹²¹ Anticipating this, Leumi made a low bid to buy Discount's shares. Negotiations deadlocked, and finally the banks agreed to have a single-round sealed bid for the company. It was Discount that offered the higher bid.¹²² Bank Leumi, the second largest Israeli bank, found itself without a credit card company, and was forced to create

¹¹⁶ "Koor Investments: Alpha Card's Entry Will Reduce Profits of Leumi and Poalim by About 100 Million NIS in 1999", *Globes*, August 24, 1998. "Signs of Competition With Alpha Card: ICC Profits Down 17% in Third Quarter", *Globes*, December 1, 1998; "50% Drop in Banks' Profits From Credit Cards Next Year", *Ha'Aretz*, August 24, 1998; "Senior Banker: Interest Rates in Credit Cards – At Suicidal Prices; They Will Have to Raise Them", *Ha'Aretz*, August 19, 1998.

¹¹⁷ "160 Million NIS Loss For Alpha Card in 1999", *Ha'Aretz*, March 15, 2000; "Bank Leumi Purchased Alpha Card's Infrastructure for \$32 Million", *Ha'Aretz*, April 19, 2000.

¹¹⁸ "Alpha Card Raises Fees for Hundreds of Merchants by 0.5%", *Ha'Aretz*, April 12, 2000.

¹¹⁹ Though the banks often outsource to the credit card companies the actual issuing of cards, it is the banks that are the issuers, since they have the best knowledge and ability to monitor the cardholder's financial situation.

¹²⁰ The condition followed banking legislation that similarly required the separation of ownership in ICC.

¹²¹ This, of course, would require permission from the Commissioner, but such permission was perceived likely to be granted due to the pro-competitive effect of building a sizable client base for the entrant credit card company.

¹²² Discount's bid was based on a valuation of ICC at 510.5 million NIS (approximately \$128 million).

a new company – Leumi Card. To expedite its operations, it purchased the systems of failing Alpha Card.¹²³ FIBI and Oreck, founders of Alpha Card bought 22% of its former rival ICC.¹²⁴

After this reshuffling, the Israeli industry remained with two Visa network members, albeit the ‘players’ are more balanced then at the time of Alpha’s entry: ICC, now including Discount’s client base of 450,000 and Alpha Card’s 230,000 clients for a total of 680,000 cardholders;¹²⁵ and Leumi card (based on Alpha Card’s infrastructure and Bank Leumi’s clientele) with 900,000 cardholders – somewhat larger than the new ICC, but far less intimidating than when it first faced Alpha Card two years earlier.¹²⁶

The third player in the Israeli credit card industry is Isracard. Though it did not split, change ownership or lose clients, it too faced a changing playing field. Isracard reached an understanding with the IAA to undertake operational restrictions similar to those required of the Visa members in the interconnection agreement,¹²⁷ and agreed to waive its exclusivity in issuing and acquiring MasterCard credit cards beginning July 1999.¹²⁸ Its exclusivity in the Isracard brand will be waived, unless by a prescribed date it or its owner, Bank Poalim will issue half a million Visa cards (making it a third significant competitor in the Visa network).¹²⁹

The entry of competition into the Visa system destabilized the segregation between clients of each credit card brand. Once Alpha Card began to market its cards to Leumi and Discount clients (as well as to Poalim’s clients), ICC found itself pressured to seek clients outside of its regular grazing area. Since there were not many FIBI clients to go after, Poalim’s clients were a more attractive target. The changes in the credit card industry also made more consumers interested in holding a second credit card.

¹²³ “Bank Leumi Purchased Alpha Card’s Infrastructure for \$32 Million”, *Ha’Aretz*, April 19, 2000.

¹²⁴ *Id.*; “FIBI and Oreck will Purchase 22% of ICC and will Transfer to it Alpha Card’s Clients”, *Ha’Aretz*, April 14, 2000.

¹²⁵ Discussions were held to have Israel’s fourth largest bank, Mizrahi, join ICC as well, adding its 100,000 clients, for a total ICC client base of 780,000. See: “The Powers Begin to Balance”, *Ha’Aretz*, April 16, 2000.. These discussions failed to materialize.

¹²⁶ *Id.*

¹²⁷ See description *supra*, in Part III(3)(b).

¹²⁸ “Isracard Will Not Charge Higher Fees Than ICC and Alpha”, *Ha’Aretz*, October 19, 1998.

¹²⁹ *Id.*

Therefore, Leumi began planning its entry into the MasterCard market,¹³⁰ and had recently joined the network.¹³¹ ICC has applied to join the MasterCard network as well.¹³²

Structural changes in the industry modified the firms' incentives regarding interchange fee structure, necessitating modification of that aspect of the agreement. First, the structural changes caused objective delays in implementing the arrangement.¹³³ Second, since the structural change resulted in greater similarity in the size of the two competing firms, it reduced the difference in the interests of the firms vis-à-vis the interchange fee pricing structure, but increased the discrepancy between their interest in setting a high floor to merchant fees and the IAA's interest in reducing the fees (and hence the cost to merchants of doing business with credit cards). However, a third effect of the structural changes was an increase in the importance of the interconnection agreement to the larger firm.¹³⁴ Therefore, the IAA no longer faced resistance from the larger firm in implementing the interconnection arrangement, and could focus on ensuring a competition-enhancing interchange fee structure in that agreement.

Concerned with the interim fee structure becoming the de facto permanent structure, the IAA replaced the exemption to the interconnection agreement with a new and more limited exemption, which covers the determination of interchange fees only for a short period, forcing the parties to petition the Antitrust Tribunal for approval of the interconnection agreement.¹³⁵ This proceeding is currently litigated, and an agreement between the IAA and the credit card firm regarding the interim fees pending decision in

¹³⁰ "Leumi in Advanced Negotiations with MasterCard to Issue a Card in Competition with Bank Ha'Poalim", *Globes*, November 11, 1998.

¹³¹ "The Powers Begin to Balance", *Ha'Aretz*, April 16, 2000.

¹³² *Id.*

¹³³ The 1998 interconnection agreement and the IAA decision to exempt that agreement were made obsolete when (as described in Part IV below) one of the two firms failed and a new firm emerged. A new interconnection agreement was signed in 2000, requiring the IAA to modify the schedule of the interchange fee arrangement.

¹³⁴ A market of similarly sized firms is likely to include more inter-firm transactions than a market with one very large player. Since the Israeli market shifted from the latter type of market to the former, inter-firm transactions became more common, and therefore the necessity of an interchange agreement more pressing even for the largest firm.

¹³⁵ The proceeding at the Antitrust Tribunal is an alternative to the IAA's exemption. See *supra*, Part III(2)(c).

the proceedings¹³⁶ may indicate a likely shift from fee structures based on the type of merchant accepting payment with the card, to a structure based on the technology used to process the credit card transactions.¹³⁷

As of early 2002, the Israeli Visa and MasterCard networks were on their way to becoming three-player fields, with Isracard, ICC and Leumi Card participating in both networks. The rapid changes of the industry frustrate any attempt to predict its future. But while the tenant the IAA accommodated into the house of cards has passed away from exertion in fighting for a foothold, it seems Alice was right – there was PLENTY of room!

¹³⁶ See *Commissioner's Recommendation Regarding Petition for Interim Approval of a Restraint of Trade*, Antitrust Tribunal Proceeding 4630/01 *In re: Bank Leumi, et al.* (January 6, 2002).

¹³⁷ Technology-based pricing is likely pro-competitive, as it creates an incentive to use technology that reduces credit card fraud (e.g., online authorization rather than unauthorized paper transactions). Internalizing fraud costs into the fee system is therefore likely to be more efficient. Furthermore, anticompetitive price discrimination is less likely to be facilitated by a technology-based fee structure than by an industry-based structure.