


# The Strange Behavior

## of the Credit Card Market

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Over the past two and a half years, interest rates on Treasury bills, commercial loans, certificates of deposit, and other money and capital market instruments have declined substantially. Between May 1989 and November 1991, the prime rate charged by commercial banks dropped from 11.5 percent to 7.5 percent, and the interest rate on large-denomination, six-month CDs fell from around 9 percent to about 5 percent.

The typical credit card borrower, however, has seen no corresponding decline in card interest rates. Although there is substantial diversity in card rates, the average remains stubbornly high, at about 18.25 percent. This recent stickiness of credit card rates repeats a familiar story. During several episodes in the 1980s, when other interest rates rose or fell, credit card rates changed little.

Also during the 1980s, credit cards consistently earned higher returns than most other bank products. A 1991 study by Lawrence Ausubel concluded that bank credit card operations have been earning two to five times the rate of return earned in the banking industry at large.

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These features of the bank card market are all the more intriguing considering the fragmented structure of that industry. Numerous card issuers share the market for consumer revolving credit, including recent entrants that have rapidly gained substantial market shares. Ordinarily, such a market structure leads to competitive performance, whereby prices are aligned with costs and firms earn a normal rate of profit.

Various theoretical explanations are possible for the puzzling behavior of the bank card industry. One explanation is that default risks induce issuers to maintain high rates, since credit card debts generally are unsecured. But Ausubel presents evidence that this explanation may be insufficient.

Another explanation posits that card customers face *search costs*. According to this view, competition among card issuers is lessened because consumers have difficulty identifying credit card plans with low rates. This explanation has influenced federal regulation of the credit card market. Currently, issuers are required to disclose credit terms in ways designed to facilitate comparison shopping by consumers. The search-cost explanation, however, seems inconsistent with important aspects of the bank card industry.

An alternative explanation is based upon the notion of *switching costs*. According to this view, competition among credit card issuers is restrained by difficulties consumers face in switching accounts. Compared with the search-cost explanation, the switching-cost view seems more consistent with characteristics of the bank card industry. Further study is needed, however, before firm conclusions can be drawn.

## THE GROWTH AND STRUCTURE OF THE BANK CARD INDUSTRY

There are two main types of credit cards. A *two-party card* or *retail card* provides sales credit for purchases from the card issuer, typically a **merchandise retailer** or gasoline company. A

*general-purpose card* or *bank card* provides a line of credit that a consumer can use to purchase products from any merchant who accepts the card. Traditional, diversified banking organizations are the typical issuers, although there are important exceptions, including Sears, American Express, and AT&T.<sup>1</sup>

A cardholder can borrow up to a specified credit limit and repay on flexible terms. Minimum monthly payments often are as low as 5 to 10 percent of the total amount owed. Most issuers offer a grace period, typically 25 days from the date of the **monthly statement sent** to cardholders. Cardholders who do not pay off their balances within the grace period are assessed a monthly finance charge. In addition, holders of bank cards are usually assessed an annual fee independent of the frequency of card use or the quantity borrowed.

Most institutions issuing general-purpose credit cards belong to the Visa and MasterCard systems, the two primary systems for settling interbank accounts.<sup>2</sup> Visa and MasterCard operate worldwide payment networks among their respective "member" banks and provide related services such as point-of-sale authorization systems. Thus, the holder of a Visa card issued by one bank may make purchases from any retailer whose bank also belongs to Visa network. Individual card issuers, not Visa or MasterCard, determine the annual fee assessed to cardholders as well as the interest rate, the grace period, and other terms of credit.<sup>3</sup> Visa

<sup>1</sup>Sears's Discover Card and American Express's Optima Card are issued through bank subsidiaries. AT&T's Universal Card technically is issued by Universal Bank, a subsidiary of Synovus Financial Corporation, under an "affinity arrangement." In particular, AT&T markets the card and purchases card receivables every day.

<sup>2</sup>An important exception is Sears, which operates its own settlement system for its Discover Card.

<sup>3</sup>The individual card issuer also determines the credit standards applied in evaluating applications for credit.

and MasterCard earn their income through fees charged to card issuers.

**Consumer Use of Credit Cards.** Credit cards are extremely popular. According to a recent *American Banker* survey, eight out of 10 U.S. households hold one or more credit cards. Two out of three households have at least one retail card; 56 percent have one or more Visa cards, and 47 percent have at least one MasterCard.<sup>4</sup>

About one out of three credit card users generally pay off their balances in full each month. These cardholders are often referred to as *convenience users*. Others are *borrowers*, who carry balances beyond the grace period and pay finance charges.<sup>5</sup>

Credit card balances have increased significantly over the past decade, along with consumer installment credit in general. (See *Growth in Consumer Installment and Revolving Credit Outstandings: 1981-1990*, p. 6.) Annual growth in consumer installment credit averaged 9 percent over the period 1981-90.<sup>6</sup> Consumer installment payments as a percentage of disposable personal income also increased steadily, rising from 14.5 percent in 1981 to 18.5 percent in 1990.

Moreover, revolving credit balances (credit cards and related plans) have accounted for an increasing share of total consumer installment

credit. Revolving credit grew from a 19 percent share at year-end 1981 to a 30 percent share at year-end 1990.

**Bank Cards.** There are some important differences between two-party cards and bank cards. First, two-party cards often cannot be substituted for bank cards. Second, for items purchased with two-party cards, the distinction between purchase price and finance charge may be somewhat artificial. For instance, for an item bought on credit from a retailer, a reduced purchase price is equivalent to a reduced finance charge. Third, retail or gasoline companies that issue two-party cards obtain marketing and customer relations benefits that make it difficult to measure the card's contribution to firm profits. Thus, the market for two-party card credit only partly overlaps with the market for general-purpose card credit. Our focus will be on the market for general-purpose card credit.

The share of consumer revolving credit held by FDIC-insured banks has increased over the decade. At year-end 1990, banks held 58 percent of consumer revolving credit outstanding, compared with 51 percent at year-end 1981.<sup>7</sup> The share of consumer revolving credit held by retailers and gasoline companies has declined dramatically.<sup>8</sup>

Further evidence on the growth of the bank card industry is provided by data on Visa and

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<sup>4</sup>See "Appetite for Credit Cards Remains Hearty," *American Banker*, October 5, 1990.

<sup>5</sup>See "Fewer Paying Off Card Balances, ABA Survey Finds," *American Banker*, September 19, 1989. Ausubel (1991), reporting the results of a 1987 survey of 17 large banks, obtained a slightly lower estimate for convenience use.

<sup>6</sup>The Federal Reserve classifies consumer installment credit as automobile loans, mobile-home financing, revolving credit (credit cards and related plans), and "other." Revolving credit balances include the balances of credit card convenience users, in addition to balances that incur finance charges.

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<sup>7</sup>This includes the share held by the bank subsidiaries of nonbank firms such as Sears and American Express.

<sup>8</sup>The reported shares of bank card credit (and retail and gasoline card credit) are computed as the ratio of bank (retail and gasoline) card outstandings to total card credit including securitized loans. Thus, the reported shares are influenced by asset securitization, which transfers assets from the balance sheets of the original lenders to the portfolios of investors. Securitization of credit card receivables came into practice in 1986, but data are available only since 1989. In 1989 and 1990, respectively, 11 and 19 percent of credit card outstandings were held as investment securities.

## Growth in Consumer Installment and Revolving Credit Outstandings: 1981-1990

Year*	Install. Credit Balances (mil. \$)	% Change From Prev. Yr.	Consumer Install. Paymts.: % of DPI**	Revolv. Credit: % of Install. Credit	Revolv. Credit: Banks % Share	Revolv. Credit: Retail +Gas Co. % Share
1981	335,691		14.5	19.2	51.0	49.0
1982	355,849	6.0	14.2	19.7	52.4	47.6
1983	383,701	7.8	14.3	21.4	53.9	46.1
1984	460,500	20.0	15.6	22.1	59.6	40.4
1985	535,098	16.2	17.3	22.1	62.5	32.9
1986	577,784	8.0	18.4	23.4	63.4	29.2
1987	613,022	6.1	18.6	26.0	62.0	25.5
1988	659,507	7.6	18.6	26.5	67.3	24.2
1989	716,624	8.7	18.7	27.5	62.9	20.1
1990	739,014	3.1	18.5	29.5	57.8	18.3

\*Balances outstanding are end-of-year amounts.

\*\*DPI = Disposable personal income

Note: The last two columns do not necessarily sum to 100, owing to shares of revolving credit held as securitized assets or shares held by other than FDIC-insured financial institutions.

Sources: *Federal Reserve Bulletin* (Financial and Business Statistics) and Canner and Lockett (1991).

MasterCard activity.<sup>9</sup> Between 1982 and 1990, annual growth in Visa and MasterCard outstanding balances averaged 23 and 21 percent, respectively. The average balance in active

accounts has increased annually at an average rate of 10 percent, climbing to about \$1300 at year-end 1989.<sup>10</sup>

<sup>9</sup>The source of these data is the American Bankers Association's annual *Retail Bank Credit Report* (1983 through 1987) and *Bank Card Credit Report* (1988 through 1990).

<sup>10</sup>An alternative source, the Federal Reserve's *1989 Survey of Consumer Finances*, shows that the typical family owing credit card debt has a total balance of \$1500 on all cards held.

### The Competitive Structure of the Industry.

The bank card market contains numerous providers of card credit, although the largest issuers have a disproportionate market share. Moreover, new issuers have demonstrated that entry into the market on a widespread basis is possible.

The market for bank card and related credit is national. A California bank, for example, can easily issue a Visa card to a resident of New York. At year-end 1990, 5986 banks held credit card and related credit outstandings.<sup>11</sup> The top four banks with respect to card outstandings accounted for about 51 percent of total outstandings, while the top 10 banks accounted for about 62 percent.<sup>12</sup> Thus, the market for bank card credit may be viewed as only moderately concentrated.

Virtually any commercial bank, savings bank, or credit union can enter this industry by joining the Visa or MasterCard network and marketing its card. The costs associated with entry are low. In fact, between year-end 1981 and year-end 1990, there was a net increase of 1243 banks in the market, or an average increase of 138 banks per year.

## THE PERFORMANCE OF THE BANK CARD INDUSTRY

Despite the large number of card issuers and the ease of entry into the industry, the performance of the bank card industry diverges from

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<sup>11</sup>This number was obtained from Call Report data and does not include cards issued by financial institutions not insured by the FDIC, such as thrifts and credit unions.

<sup>12</sup>These shares are computed from Call Report data, which summarize the balance sheets of FDIC-insured banking organizations. Securitized loans are omitted from the computations. It would be more meaningful to compute market concentration with respect to loan originations, but this cannot be done given lack of data. The effect that this would have on measured concentration depends on which banks engage most actively in asset securitization.

the textbook model of a competitive market. Profits have been unusually high, credit card interest rates, on average, do not move in tandem with banks' costs of funds, and card issuers engage in a significant amount of nonprice competition.

**Profitability of Bank Card Operations.** According to the textbook model of a competitive market, abnormally high profits cannot be sustained in the long run. Rather, excess profits would be eliminated as existing firms compete for customers and new competitors enter the market. But profits from credit card operations have been unusually high relative to other lines of bank business. Over the period 1983-88, the pre-tax return on equity in bank credit card operations was two to five times the pre-tax return in the banking industry at large, according to Ausubel (1991).

A report submitted to Congress by the Federal Reserve Board in September 1991 suggests that credit card operations are continuing to earn high profits. The report examines the earnings performance of credit card banks over the period 1986-90 and finds that 1989 and 1990 performance compares favorably with that of earlier years.<sup>13</sup>

How can the bank card industry be so profitable? Conceivably, a high rate of return may be required to compensate issuers for default risk. A sharp increase in defaults and delinquencies could result in substantial losses for card issuers because card debt is unsecured. This explanation, however, is not entirely convincing. During the latest recession, consumer delinquencies on credit card debt have increased

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<sup>13</sup>See *Annual Report on the Profitability of Credit Card Operations of Depository Institutions*, submitted to Congress by the Board of Governors of the Federal Reserve System, pursuant to Section 8 of the Fair Credit and Charge Card Disclosure Act of 1988. Credit card banks as defined in the report are banks with greater than \$200 million in assets, the bulk of which is in consumer revolving credit.

only modestly. At the start of 1991, just under 4.5 percent of credit card balances were past due by at least 30 days.<sup>14</sup> Over the previous four years, delinquency rates ranged between 3.4 percent (at the start of 1990) and about 4.2 percent (at the start of 1987).<sup>15</sup>

Moreover, over the period 1984-90, resales of credit card accounts paid large premiums, even though buyers presumably were compensated for default risk. According to Ausubel (1991), premiums of 20 percent were typical during this period. That is, buyers of credit card portfolios paid about \$1.20 per dollar of interest-earning balances. According to Ausubel, a buyer paying such a premium would expect the bank card operation to earn at least three times the average return on equity in banking, after adjustment for risk.

Another possible explanation for the industry's profit performance is that profit opportunities created by a growing demand for credit have yet to be eroded by entry. This explanation is consistent with the rapid expansion of consumer borrowing in the 1980s, and it may account for part of the industry's high profits. This explanation alone seems inadequate, however, in view of the rapid pace of entry into the industry and the large number of issuers currently in the market.

Alternatively, the abnormally high profits earned by card issuers may be due to limited

competition for card customers. That is, issuers may enjoy a measure of *market power*, despite the moderately concentrated industry structure. Possible explanations for this are consumer search costs and consumer switching costs, which we shall address shortly.

**Interest Rate Performance.** According to the textbook model of a competitive market, the price of a product or service adjusts to equate market supply and demand. Supply, in turn, is determined by marginal production costs. Thus, in a competitive market, the market price is directly affected by marginal costs; for instance, declining costs lead to falling prices.<sup>16</sup> On average, however, bank card interest rates have not varied with the money and capital market rates that determine a bank's marginal cost of funds.

During 1982-83, interest rates declined in financial markets. Bank card rates typically remained high, however, averaging about 18 percent. In other words, the spread between bank card rates and money market rates increased substantially in the 1982-83 period.<sup>17</sup> Since 1983, banks' costs of funds have fluctuated. But the average interest rate on bank cards has been stable at 18 to 19 percent, implying a fluctuating spread above other rates. (See *Interest Rate Comparison*.)

This behavior of credit card rates is consistent with a scenario in which card issuers have some market power. For an issuer with market power, the optimal interest rate would depend upon the issuer's perceived demand for card credit. The spread between the card rate and the bank's cost of funds can shift with per-

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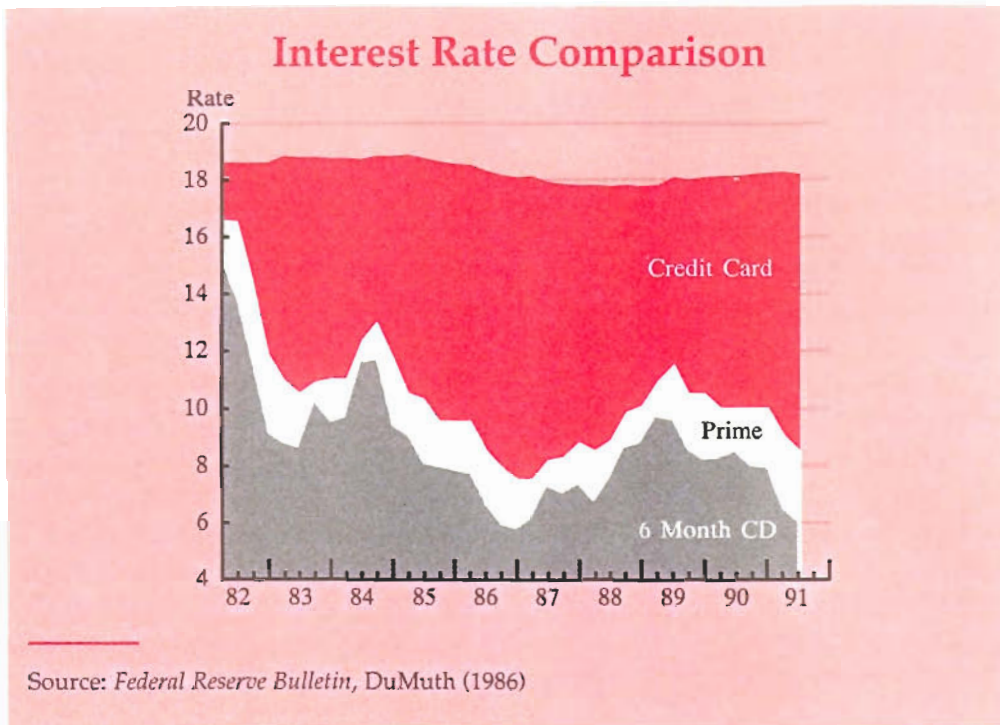
<sup>14</sup>Delinquencies rose to 4.55 percent at the end of the first quarter and then began to decline. See "Card, Home-Equity Delinquencies Dip for First Time in Many Months," *American Banker*, September 19, 1991.

<sup>15</sup>Also, Ausubel (1991) finds that charge-offs during the 1980 and 1982 recessions increased only fractionally above prior years. The source for the 1987-90 delinquency rates is the American Bankers Association's *Retail Bank Credit Report* (1987) and *Bank Card Credit Report* (1988-90). For the beginning of 1987, delinquency rates are reported separately for MasterCard balances (4.0 percent) and Visa balances (4.34 percent).

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<sup>16</sup>Marginal cost, at a given level of output, is the cost of producing an additional unit. If marginal cost falls below the market price, either existing firms will increase their output or additional firms will enter the market, leading to a decline in the market price.

<sup>17</sup>See DeMuth (1986). Prior to the 1980s, credit card rates generally were constrained by usury ceilings.



ceived changes in demand.

For instance, the increasing spread between bank card rates and other rates during 1982-83 could be attributed to card issuers learning about the demand for card credit. Prior to 1980, usury ceilings generally were binding on card issuers. Subsequently, as inflation began to moderate in the early 1980s, issuers may have discovered that the demand for card credit was fairly insensitive to the widening rate spread. Thus, they found it profitable to let the bank card rate rise relative to other rates.<sup>18</sup>

<sup>18</sup>Also, for example, the demand for card credit may be affected by the level of real (inflation-adjusted) interest rates in financial markets, as argued by Mester (1991). When these rates are low, cardholders may increase their borrowing from other sources, and the purpose of card borrowing may change. For instance, cards may be used more widely in conjunction with other borrowing, such as for expenses connected to the purchase of a home. As a result, the demand for card credit may become less sensitive to the card interest rate, so that issuers find it profitable to maintain high rates (higher spreads).

While bank card interest rates remain, on average, stubbornly high, there is substantial diversity among individual issuers. A recent Federal Reserve survey of credit card issuers finds rates as low as 10.5 percent and as high as 22 percent. Moreover, the survey finds that a number of card plans offer interest rates that are tied to other market rates or

are lower for higher balances.<sup>19</sup>

**Nonprice Competition.** In contrast to the textbook model of competition, bank card issuers vie for customers by means other than competing on interest rates. These firms actively engage in *nonprice competition*, which takes the form of widespread advertising and offers of special services or benefits to cardholders. It also takes the form of easing credit standards to increase card holdings among wider segments of the populace.

<sup>19</sup>See the Federal Reserve Board's E.5 statistical release, September 17, 1991. A probable explanation for this diversity is that issuers vary with respect to the clientele they serve. In particular, issuers offering low-rate cards may seek customers who are minimal credit risks and who borrow conservatively. In addition, issuers may vary with respect to credit limits and card-related services.

Recently, there have been indications that an increasing number of issuers are offering low-rate cards, at least to some customers. See, for instance, "Favored Credit Card Holders Quietly Receive Lower Rates," *New York Times*, November 13, 1991.

Survey data on card promotions indicate that bank card issuers advertise extensively. Radio and newspaper promotions are prevalent, but the most common forms of advertising are applications displays, at bank branches or at shops and restaurants, and direct mail.<sup>20</sup> For instance, in 1989, almost 70 percent of banks with total assets over \$1 billion, and 45 percent of smaller banks, engaged in direct-mail advertising. About half of all banks with total assets over \$300 million, and one out of three smaller banks, displayed card applications in shops and restaurants. Almost all issuers displayed applications at their branches.

In recent years, so-called *affinity card plans* have been a popular promotional scheme. They involve an agreement between a bank card issuer and an organization that markets the card to its members. The card bears the logo of the organization, which might be a club, religious group, labor union, professional association, or business.

Card issuers also compete by offering special benefits to their cardholders. Examples of such *enhancements* include rebates on purchases, frequent-spender programs (in which card users accumulate "points" that allow them rebates on purchases), and frequent-traveler programs (whereby cardholders earn airline-travel mileage each time the card is used). Some issuers offer extended warranties for products purchased with their card.<sup>21</sup> Lately, it has become commonplace for issuers to waive the fixed annual fee for one year for new cardholders

and to offer higher credit limits to borrowers who make timely payments.<sup>22</sup>

#### **Public Concern About Credit Card Rates.**

The current wide gap between bank card rates and various short-term market rates has received prominent press coverage.<sup>23</sup> Moreover, it has been characterized as unfair to consumers. For instance, a recent report by the Consumer Affairs Commissioner for New York City accused card issuers of overcharging U.S. consumers. On the opposite coast, a San Francisco-based consumer group, Consumer Action, recently concluded a survey of California banks and found that cardholders are paying "needlessly high" interest rates.

In November 1991, Congress briefly considered imposing a nationwide ceiling on credit card rates, as various consumer groups have advocated. Rate ceilings, however, may have other effects. Faced with a binding cap on interest rates, card issuers could pursue alternative, profit-maximizing strategies that could have a variety of undesirable consequences. For instance, a rate ceiling would likely lead to a reduction in the availability of card credit, as banks might be induced to hold back supply. In particular, banks could tighten credit standards, which would most likely have an adverse impact on lower-income households and on those without established credit histories. In addition, ceilings could lead to a reduction in nonprice competition, such as fewer enhancements. Another likely consequence could be

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<sup>20</sup>Survey results are reported in the American Bankers Association's *Retail Bank Credit Report* (1982, 1983, and 1986) and *Bank Card Credit Report* (1988, 1989, and 1990).

<sup>21</sup>An attention-getting enhancement recently introduced by Valley National Bank of Arizona and by Citicorp is known as "price protection." The program grants a rebate to customers who find (within 60 days) that a product they bought with their card is being advertised at a lower price than what they had paid.

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<sup>22</sup>See "Rivalry Rages Among Big Credit Cards," *Wall Street Journal*, May 3, 1991, and "Credit Cards in Combat," *Washington Post*, July 11, 1991.

<sup>23</sup>See, for instance, "Interest on Deposits Falls, But Loan Rates Stay High," *New York Times*, April 19, 1991; "Credit Card Giants Grow; Lower Rates Not in Sight," *Wall Street Journal*, April 12, 1990; "Credit Card Rates Keep Rising Despite the Competition," *Wall Street Journal*, September 6, 1991; and Craig Stock, "You're Paying for New Bailout," *Philadelphia Inquirer*, September 29, 1991.



higher annual fees and shorter grace periods. Indeed, the experience in states with binding usury ceilings prior to 1980 provides evidence of such adverse consequences.<sup>24</sup>

### EXPLANATIONS FOR CARD ISSUERS' PERFORMANCE

The profit performance of the bank card market suggests that card issuers exercise some degree of market power. Shifts in the spread between card rates and other rates may reflect card issuers' market power, along with shifts in the demand for card credit. But how can one reconcile the apparent market power of card issuers with the seemingly competitive structure of the industry?

**Search Costs.** One explanation for the industry's performance is the search costs consumers face in bank card markets. This explanation posits that consumers cannot easily observe and compare available interest rates and credit terms.

In theory, search costs could reconcile the apparent market power of card issuers with the fact that so many firms participate in the market. Proponents of the theory argue that mass-media advertising of credit card rates, fees, and credit terms is rare, making information on these parameters difficult to obtain. But important characteristics of the credit card market, including the intensity and abundance of nonprice competition, appear inconsistent with the search-cost explanation.

The search-cost argument proceeds as follows. Lacking information on interest rates, consumers choose their credit card banks somewhat randomly, possibly responding to nonprice factors such as convenience. These customers are then "tied" to their chosen bank, unaware of the rates and terms offered by other issuers. As a result, each individual card issuer

is free to set an interest rate consistent with an above-average return.<sup>25</sup> No individual card issuer has an incentive to offer a lower, competitive rate, since this would reduce payments from its current cardholders without attracting a significant number of new customers.<sup>26</sup>

The search-cost argument has influenced federal regulation of the bank card industry. The original Truth in Lending Act of 1968 required disclosure of credit card rates and terms prior to a consumer's signed acceptance of a credit card account. In response to concerns about high card rates, Congress expanded these rules in 1988 with passage of the Fair Credit and Charge Card Disclosure Act. This law requires card issuers to disclose credit terms on applications and in solicitations. (See *Congress Tightens Disclosure Requirements*, p. 12.)

There are good reasons, however, to be skeptical of the search-cost argument. Even prior to the recent tightening of disclosure requirements, search costs probably were small. Shopping around for a card likely was as easy as obtaining applications at bank branches, at merchant displays, or in the mail, and then inquiring about credit terms at the bank or over the phone. Indeed, the fact that disclosure rules have had little impact on interest rates and profits suggests that search costs were small.

In any case, now that disclosure has increased, it is highly unlikely that substantial search costs exist. For instance, through merchant displays or direct-mail promotions, consumers are likely to find out about interest rates and credit terms for a variety of bank card plans. Moreover, since 1990 the Federal Reserve has published a semiannual survey of the

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<sup>25</sup>With free entry, some banks (the marginal entrants) will gain just enough of a market share to earn a normal return.

<sup>26</sup>For an analysis of markets with search costs, see, for example, Diamond (1971) and Wilde and Schwartz (1979).

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<sup>24</sup>For further discussion of the impact of rate ceilings, see DeMuth (1986) and Canner and Fergus (1987).

## Congress Tightens Disclosure Requirements

The Fair Credit and Charge Card Disclosure Act of 1988, introduced by Representative Charles Schumer (D-N.Y.) in January 1987 and signed by President Reagan in November 1988, became effective in March 1989. The new law amended the Truth in Lending Act to require credit card issuers to disclose, in written or telephone solicitations and in applications, the annual percentage rate, fees, grace period, and method of calculating balances. Disclosure requirements set by this law preempt state laws.

Prior to these amendments, the Truth in Lending Act required disclosure only prior to a consumer's signed acceptance of a credit card account. Thus, consumers did not necessarily receive full disclosure of credit terms until after their applications were approved.

Alternative bills introduced in Congress in 1987 would have instituted interest rate ceilings on credit cards. These bills were supported primarily by consumer groups, but were opposed by industry representatives and by the Federal Reserve Board. In contrast, disclosure requirements received wholehearted support from consumer advocates and qualified support from the other parties.

Proponents of increased disclosure requirements emphasized the need for consumers to be more informed about credit card terms in order to make the market more competitive. In a prepared statement before the House Subcommittee on Consumer Affairs and Coinage, Schumer testified:

*"Credit card issuers would not be able to prop up interest rates at artificially high levels if consumers used the full power they have in the market. Consumers are not using that power because they don't know they have it—and that's because consumers are distressingly ill-informed about how credit cards work."*

terms of credit card plans, including information from over 150 issuers, in its E.5 statistical release. Newspapers also publish lists of low-rate cards. As pointed out by Federal Reserve Governor John LaWare (1991), "The current disclosure scheme gives consumers ample opportunity to ascertain and review account terms prior to being obligated on a card account."

**Switching Costs.** An alternative explanation is the presence of switching costs for cardholders.<sup>27</sup> This explanation posits that once a consumer opens a bank card account, it becomes costly for the consumer to switch to another issuer. Hence, as in the case of search costs, cardholders are "tied" to their initially chosen bank. Each card issuer is then free to

maintain an interest rate consistent with an above-average return. No issuer has an incentive to offer a lower, competitive rate, since to gain market share, one must undercut rivals by an amount commensurate with the consumer switching cost.<sup>28</sup> In general, the gains to doing so would be offset by reduced payments from current cardholders, by marketing costs, and by adjustment costs such as modified disclosure statements.<sup>29</sup>

One advantage of the switching-cost expla-

<sup>28</sup>Even small switching costs might require a large interest rate cut, since the benefit from switching may not be large for the typical borrower. For instance, for a borrower with an outstanding balance of \$1300, a 2-percentage-point decrease in the interest rate implies a savings of just \$26 per year.

<sup>29</sup>Although new issuers may enter the market offering comparatively low interest rates, they would raise them

<sup>27</sup>For an analysis of markets with switching costs, see, for instance, Klemperer (1987) and Farrell and Shapiro (1988).

nation is that it is consistent with the extensive nonprice competition in the bank card industry. According to the switching-cost theory, card issuers with a substantial share of “loyal” customers are unwilling to engage in interest rate competition. There could remain, however, a constant pool of potential new customers (including some that already own at least one credit card and are in the market for another). Competition for these consumers could take on nonprice dimensions.

At first glance, it might seem that switching costs are minimal. Obvious costs are the time and effort that must be expended on a new application (with the possibility of rejection) and the fact that a consumer who switches accounts loses the nonrefundable annual fee paid to the prior issuer. But these costs alone may be too small to explain the noncompetitive performance of the industry.

These may not be the only relevant switching costs, however. Recall that there are two basic types of cardholders—convenience users and borrowers. Convenience users are of little relevance to the bank’s interest rate decision, since they do not choose a card on the basis of the interest rate. Borrowers do care about interest rates. But borrowers may be subject to a substantial switching cost related to the process of qualifying for a new card.

While some borrowers may easily qualify for a new card offering a lower rate, many others may find it difficult to qualify because the issuer would be concerned about the applicant’s existing debt level. The issuer may be unwilling to approve the customer’s application until he or she has closed some preexist-

ing account or accounts. That is, the card issuer would take into account an applicant’s existing debt obligations and would be cautious with respect to applicants having substantial amounts of credit outstanding.<sup>30</sup>

The need to close one account before opening another could entail a substantial switching cost for consumers. It is likely to take several months of curtailed spending for a borrower to pay off an outstanding balance and close an existing account.<sup>31</sup> Moreover, in the absence of active consumer involvement, it may take another month or two before that customer’s credit record is updated. During this entire period, the customer effectively loses access to card credit. If enough borrowers are subject to such costs, and these costs are sufficiently large, then switching costs may underlie the observed behavior of the bank card market.

While appealing, the switching-cost argument is not yet supported by direct evidence. There has been no careful study of consumer switching costs and no attempt at quantitative measurement. Economists have not performed rigorous empirical tests to determine whether the bank card market behaves in accordance with the implications of switching-cost models. Thus, it is too early to draw firm conclusions or to rule out some other explanation for the puzzling behavior of the bank card market.

## CONCLUSION

Despite the only moderately concentrated structure of the bank card industry, its profits have been significantly higher than in other banking activities in recent years. In addition, bank card interest rates have not been responsive to changes in banks’ cost of funds.

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once they became established, according to the switching-cost view. But entrants may opt to attract customers in other ways. For instance, Sears introduced the Discover Card by waiving the annual fee and offering rebates on purchases, and AT&T introduced its Universal Card with a “no annual fee for life” promotion.

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<sup>30</sup>Issuers may worry that the borrower might increase default risk beyond a level acceptable to the lender.

<sup>31</sup>Ausubel (1991) calculates an average maturity of six to eight months for credit card receivables.

So-called consumer search costs could explain these aspects of the card industry's performance. This explanation posits that consumers have difficulty acquiring information on bank card rates and terms. This view has influenced federal regulation of the industry. In practice, however, search costs appear to be small.

Currently, card issuers are subject to disclosure rules aimed at reducing search costs. Profits and interest rates remain high, however, probably because search costs are not the source of the interest rate stickiness. Indeed, in retrospect, the primary benefit of strict disclosure rules appears to be in countering misleading advertisements.

An alternative explanation of the industry's

performance is that consumers are subject to switching costs. Like search costs, switching costs would induce customer loyalty, weakening interest rate competition among card issuers. Unlike search costs, switching costs cannot be reduced by disclosure. The switching-cost explanation is an appealing one, as it seems consistent with important characteristics of the bank card industry.

Further study, to quantify consumer switching costs and their effect on bank card interest rates, might prove useful. Such inquiry might range from surveys of consumers and card issuers to empirical tests of whether industry behavior conforms to economic models of markets with switching costs.

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