

Yale Journal on Regulation

Volume 3, Number 2 Spring 1986



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The Yale Journal on Regulation

ISSN 0741-9457

Published semi-annually at Atlanta, Georgia, by the *Yale Journal on Regulation* staff. Editorial and general offices: 127 Wall Street, New Haven, Connecticut. Mailing address: *Yale Journal on Regulation*, 401A Yale Station, New Haven, Connecticut 06520. Phone: (203) 436-7679. Postage paid at Atlanta, Georgia, and additional mailing offices.

The views expressed in the articles herein are those of the authors and do not necessarily reflect those of the *Yale Journal on Regulation* staff or of Yale University and its affiliated institutions.

This issue should be cited as 3 YALE J. ON REG. ____ (1986).

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The Case Against Credit Card Interest Rate Regulation

Christopher C. DeMuth†

This article analyzes recent proposals to regulate credit card interest rates on a national scale. The proposals are a modern chapter in a very old story. Usury laws—laws forbidding or limiting payment for money loans—are among the most ancient forms of price control. Like previous economic studies of usury controls,¹ this one concludes that they are unjustified because the supply of credit is highly competitive, and would be harmful because they would cause an artificial contraction in the supply of credit and other economic inefficiencies.

This study, however, is new and interesting in two respects. First, the proposals examined here are unusual. They have emerged following a period of rapid technological change in the supply of consumer credit and a related wave of state interest rate deregulation. Since 1979, most states have relaxed or repealed their laws governing consumer credit; the national proposals would reverse this trend in a stroke. Second, the removal of so many state usury controls has made it possible to observe directly the economic consequences of usury controls by measuring the supply of uncontrolled credit against the supply of regulated credit. This article offers such a comparison.

The article is organized as follows. Part I provides background; it describes (A) the proposed national interest rate controls and the arguments advanced on their behalf, (B) the organization and operation of credit card services, (C) the growth in the supply of credit card and other consumer credit, and (D) the recent unravelling of state interest rate regulation. Part II presents a brief discussion of the economics of price controls in monopoly and competitive markets and a summary of recent studies of the economic effects of interest rate controls. Part III shows that the supply of

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1. See *infra* note 64.

credit card credit is highly competitive and free of any plausible monopoly problems, and accounts for recent trends in the level of credit card interest rates. Finally, Part IV describes (A) the empirical evidence showing that unregulated credit, issued from control-free states, has been growing rapidly at the expense of regulated credit in recent years, and (B) the likely economic consequences of the proposed national controls.

I. Background

Interest rate controls extend back to the earliest economic systems. The first recorded usury laws date to 2400 B.C. in India.² In the West, interest rates were controlled through a number of legal devices during the Roman Republic.³ The Old Testament injunctions against profiting on loans to one's "brother" had a considerable influence on religious law and European civil law at least through the Reformation.⁴ Massachusetts and many other North American colonies followed English law in limiting interest payments to a fixed annual percentage of the loan.⁵ Noah Webster, a crusading libertarian as well as lexicographer, led an energetic but unsuccessful campaign against state interest rate controls in post-revolutionary America.⁶ As recently as 1971, every state but two (Massachusetts, which repealed its usury law in 1867, and New Hampshire) imposed one form or another of interest rate limit on consumer loans.⁷

A. *The National Interest Rate Control Proposals*

Numerous bills to establish national ceilings on interest rates charged for credit issued through credit cards have been introduced in the current

2. S. HOMER, A HISTORY OF INTEREST RATES 30 (1963).

3. The Law of Twelve Tables (449 B.C.), for example, fixed the maximum rate of interest at one uncia per libra (about 8%; whether per year or per month is unknown). See R. SCHUETTINGER & E. BUTLER, FORTY CENTURIES OF WAGE AND PRICE CONTROLS 19 (1979); J.P. LEVY, THE ECONOMIC LIFE OF THE ANCIENT WORLD 55 (1967).

4. The fundamental Biblical injunction is that of *Deuteronomy* 25:19-20: "You shall not lend upon interest to your brother, interest on money, interest on victuals, interest on anything that is lent for interest. To a foreigner you may lend upon interest, but to your brother you shall not lend upon interest . . ." The insistence of the early Christian Church that all men are brothers radicalized this rule into a ban on all interest, a position which became increasingly untenable with the rise of commerce after the Middle Ages and was formally renounced by Calvin and, much later, by the Catholic Church. For an illuminating account, see B. NELSON, THE IDEA OF USURY (1969). Cf. F. BRAUDEL, THE WHEELS OF COMMERCE 559-69 (1982).

5. See Peterson, *Consumer Finance*, in FINANCIAL SERVICES 185-88 (G. Benston ed. 1983).

6. See 1 J. DORFMAN, THE ECONOMIC MIND IN AMERICAN CIVILIZATION 282-83 (1946); E. JOHNSON, THE FOUNDATIONS OF AMERICAN ECONOMIC FREEDOM 11-12 (1973).

7. NATIONAL COMM'N ON CONSUMER FINANCE, CONSUMER CREDIT IN THE UNITED STATES 93 (1972).

session of Congress.⁸ All of the proposals would establish a “floating” usury ceiling determined by reference to a market rate or the discount rate. Three typical bills will be described here.

H.R. 1197,⁹ introduced by Representative Mario Biaggi (D-N.Y.), would limit the annual rate of interest charged on “any consumer credit transaction involving a credit card” to five percentage points above the Federal Reserve Board’s discount rate. S. 1603,¹⁰ introduced by Senator Paula Hawkins (R-Fla.), would limit interest to five percentage points above the percentage yield on six-month Treasury bills during the previous calendar year. H.R. 3408,¹¹ introduced by Representative Charles E. Schumer (D-N.Y.), would limit interest to six percentage points above the percentage yield on three-month Treasury bills during the previous calendar quarter. The controls in the Schumer bill would not take effect if an initial study by the Federal Reserve Board determined that credit card interest rates have reflected the costs of funds to card issuers and competition among them for new accounts.

The proposals are legislative reactions to two economic facts: credit card interest rates are generally somewhat higher than rates for other forms of consumer and commercial credit, and credit card rates have been more stable over time. In particular, rates for credit card credit have generally not declined since 1981 along with rates in commercial money markets. As noted in a September 1985 paper by the Consumer Federation of America, a leading advocate of credit card controls:

The prime rate peaked at 20.5% in the summer and early fall of 1981, and the discount rate, charged by the Federal Reserve to banks for short-term borrowing, peaked at 14% at the same time. Today, the prime rate stands at 9.5% and the discount rate has dropped to 7.5%. . . . According to the [Federal Reserve Board], credit card interest rates charged by commercial banks, which averaged 17.8% in August, 1981, climbed to 18.7% a year later while the prime dropped to 15% and the discount rate fell to 11%. In the three years since, while the prime and discount rates continued to drop, credit card rates remained essentially unchanged, fluctuating between 18.71% and 18.85%, a record high.¹²

8. Two such bills have been introduced in the Senate. See Rudolph, *Mounting Doubts About Debts*, TIME, Mar. 31, 1986, at 51. For bills introduced in the House, see *Credit Card Interest Rates: Hearings Before the Subcomm. on Consumer Affairs and Coinage of the House Comm. on Banking, Finance, and Urban Affairs*, 99th Cong., 1st Sess. 5 (1986) [hereinafter cited as *Hearings*].

9. H.R. 1197, 99th Cong., 1st Sess., 131 CONG. REC. H604 (daily ed. Feb. 21, 1985).

10. S. 1603, 99th Cong., 1st Sess., 131 CONG. REC. S10800 (daily ed. Aug. 1, 1985).

11. H.R. 3408, 99th Cong., 1st Sess., 131 CONG. REC. H7710 (daily ed. Sept. 20, 1985).

12. A. FOX, CONSUMER INTEREST RATES REMAIN HIGH AS UNDERLYING RATES PLUMMET 1 (1985), reprinted in *Hearings*, supra note 8, at 84. As of April 17, 1986, the prime rate was 9.00%, the discount rate was 7.00%, the rate on three-month Treasury bills was 5.85%, and the rate on

Congressman Biaggi, testifying in favor of his proposed rate ceiling before the Subcommittee on Consumer Affairs and Coinage of the House Banking Committee, cited these trends to support the proposition that:

[T]he credit card industry is ripping off the American consumer at the rate of \$2 billion a year! That is the difference between the \$6 billion a year in interest charges now being paid by credit card users (according to the Consumer Federation of America), and the \$4 billion a year they would be paying under legislation I have authored to lower rates to more reasonable levels.¹³

Congressman Biaggi went on to offer another comparison. He noted that while he was paying nearly twenty percent interest on his credit card, he had recently read in *The New York Post* that the State of Arkansas had capped card interest rates at five percentage points above the Federal Reserve Board's discount rate, a cap of 12.5% at the time. Yet Arkansas banks were still making a "healthy profit" on their credit card business, the article reported. The Congressman concluded, "if it can work in Arkansas, it should be able to work elsewhere."¹⁴

Thus, the essential argument for the proposed national controls runs as follows: credit card rates were close to commercial credit rates in the recent past; they are even now close to commercial rates in some states; therefore, it ought to be possible to hold card rates to a fixed margin over commercial rates on a permanent, nationwide basis.

The Federal Reserve Board study proposed in H.R. 3408 suggests a closely related concern: the supply of credit card credit may be insufficiently competitive, leading to excessive interest rates, "excessive" meaning greater than the cost of supply, including a competitive return on investment. This rationale for rate controls was emphasized in the Consumer Federation paper mentioned above:

[U]nreasonably high interest rates are being charged despite growing up-front fees for credit and dramatically increasing levels of debt, suggesting that there is no adequately functioning market mechanism to hold down the cost of many forms of consumer credit. . . . Contrary to bankers' claims, consumer interest rates do not respond to market changes. Rather consumer interest rates are a function of the unequal relationship between the lenders with the power to set rates

six-month Treasury bills was also 5.85%. *Key Rates*, N.Y. TIMES, April 18, 1986, at D12.

13. *Hearings*, *supra* note 8, at 31 (testimony of Rep. Biaggi).

14. *Id.*

and consumers who are forced to accept those rates or do without credit.¹⁵

Another argument for rate controls is that easy consumer credit is “addictive,” leading to excessive current consumption and excessive debt.¹⁶ This Article, however, analyzes credit as a normal economic good. Decisions to finance current consumption out of future earnings are not fundamentally different from other economic decisions; most decisions are not simple trade-offs between goods at one point in time, but are trade-offs between present and future consumption and/or present and future production. Personal borrowing, investment, and spending decisions follow patterns that are consistent and rational.¹⁷ While there are occasional stories about people of limited means going on spending sprees after receiving credit cards in the mail,¹⁸ the total amount of uncollected credit card debt is modest.¹⁹ In any event, if easy credit were addictive or the amount of consumer borrowing excessive, *lowering* the price of credit through interest rate ceilings would be a strange solution. It would make more sense to raise prices through, for example, a special tax, as in the case of cigarettes.²⁰

B. *How Credit Cards Operate*

Devices called “credit cards” date back to early in the twentieth century. The first credit cards were issued by merchants to identify regular customers whose “credit” consisted of the right to be billed periodically. The modern, general purpose credit card is only about twenty years old, and would not have been possible before recent advances in data processing and communications technologies.²¹ The defining characteristic of the modern credit card is its combination of “transaction features” with “credit features.” As a transaction device, credit cards are widely accepted for retail purchases of goods and services in amounts running from a few dollars to several thousand dollars. In many respects, cards are superior to

15. A. Fox, *supra* note 12, reprinted in *Hearings, supra* note 8, at 85.

16. See Rudolph, *supra* note 8, at 51; *Hearings, supra* note 8, at 3 (testimony of Rep. Annunzio).

17. See generally 2 F. MODIGLIANI, *THE COLLECTED PAPERS OF FRANCO MODIGLIANI* (1980) (discussion of life cycle hypothesis of saving).

18. See Rudolph, *supra* note 8, at 51.

19. See *infra* Table 6 and accompanying text.

20. Other arguments offered in support of interest rate controls assert that consumers are poorly informed about credit card interest rates, that consumers believe mistakenly that Visa and MasterCard have a monopoly over bank cards, and that credit card issuers earn high profits. See *Hearings, supra* note 8, at 72 (testimony of Alan Fox), 18 (testimony of Rep. Schumer), and 27-8 (testimony of Rep. Biaggi). These arguments are not considered separately here.

21. AMERICAN BANKERS ASSOCIATION, *BANK CARDS* 2-8 (1983). See also sources cited *infra* note 46.

checks or currency as a means of exchange, particularly for purchasing in foreign countries, purchasing by mail or telephone, maintaining records for tax preparation and other purposes, and reducing the risks and financial costs of keeping large cash balances on hand.

At the same time, as a credit device, cards carry a pre-approved line of credit against which holders may borrow at will and repay largely at their own convenience. When a consumer receives a credit card, the card issuer assigns the cardholder an account and a line of credit ranging from a few hundred to a few thousand dollars. The consumer may debit purchases to that account so long as the outstanding balance does not exceed the line of credit. Cardholders generally receive a monthly statement from the issuer showing all new charges. They may elect to pay the entire amount in the month of billing, or pay a minimum amount that month and the rest in minimum installments in future months for up to several years, or pay any intermediate amount at any time.²² Unlike many other forms of consumer lending, credit card credit is generally unsecured; if the cardholder defaults, the card issuer is without recourse against the goods purchased with the cards.

"Bank cards" are the most widely used form of credit card. They are issued by commercial banks, and by other depository institutions such as savings-and-loan associations and credit unions, to both depositors and non-depositors in both national and local markets. A bank card may be used for purchases from any retailer whose bank is part of that card's system for settling interbank accounts. Thus a resident of Tulsa may carry a card from a local bank—or from a bank in Oklahoma City, Chicago, or anywhere else—and use it to make a purchase in Boston. The Boston seller will take the charge slip to his local bank and receive a deposit to his account. The interbank settlement system will then debit this deposit to the cardholder's account at the issuing bank in Tulsa. The cardholder will be billed for the purchase in his next monthly bank statement, and may choose to pay for the purchase within the month or "on

22. Two other kinds of transaction cards are commonly called "credit cards" but are not true credit cards. The first is "travel and entertainment cards" such as the American Express "Green Card" and the Diners Club card; these cards do not include a credit line—all accounts are payable monthly. The second is the "debit card," which also includes no credit line—all charges are automatically debited to the cardholder's bank account (usually on a monthly basis), and the cardholder simply receives a monthly statement listing his transactions and total debits. Non-credit charge cards would not be directly affected by the rate control proposals as currently written, although the controls could conceivably be extended to cover the late-payment penalties charged on travel and entertainment cards. Both "travel and entertainment" cards and debit cards do, however, permit consumers to delay payment for purchases by between one and two months (depending on the time between purchase and billing or debiting). Outstanding balances on "travel and entertainment" cards are properly included in assessing the amount and supplier shares of total outstanding card credit, and are so included in this paper.

credit" over a period of months or years. If the cardholder pays for the purchase on credit, the interest as well as return of principal will be earned by the cardholder's Tulsa bank, which advanced its own funds for the purchase when it originally settled accounts with the seller's bank in Boston.

There are two primary systems for settling interbank accounts: Visa and MasterCard. These organizations operate sophisticated, world-wide payments networks among "member" banks; the two systems settle over 1.5 billion bank card transactions annually and log over four million transactions each day. The MasterCard and Visa settlement systems are similar to those operated by the Federal Reserve System and some private firms for other interbank settlements, such as checking account settlements, but they are "paperless" and in other respects more technologically advanced.²³ Visa and MasterCard also establish rules for the operation of the settlement systems, maintain systems of account numbering, operate point-of-sale authorization systems for purchases over certain amounts, perform research on such topics as anti-fraud technologies, and provide other services to member banks.

MasterCard and Visa do not, however, control the terms of service to cardholders and sellers. Each issuing bank determines: (a) the level of its interest rates and annual fees to cardholders; (b) the level of its charges to sellers, which take the form of "merchant discounts" on deposits to sellers' accounts when retail charge receipts are presented; and (c) whether to finance the costs of supplying credit card services by other means, such as "late charges" on overdue accounts. In other words, MasterCard and Visa are suppliers of settlement, authorization, and related card services to banks and other depository institutions. These banks and institutions in turn supply credit card services—transaction and credit services—to consumers.²⁴

Banks generally charge no interest on amounts paid in the month they are billed; this is the so-called "free period." After the first month, banks charge monthly interest at annual rates which range from twelve to twenty-one percent, but which usually fall between seventeen and nineteen percent. Most banks charge an annual fee as well, typically about fifteen dollars.²⁵

More than 15,000 depository institutions—including over seventy-five

23. See Baxter, *Banking Interchange of Transactional Paper: Legal and Economic Perspectives*, 26 J.L. & ECON. 541, 579-80 (1983). For a general discussion of paperless payment systems see BANK CARDS, *supra* note 21, at 177-92.

24. Indeed, Visa and MasterCard do not even collect data on interest rates and other card charges from member banks.

25. AMERICAN BANKERS ASSOCIATION, 1984 RETAIL BANK CREDIT REPORT 73-74 (1984).

percent of banks with assets between \$50 and \$100 million and over eighty-five percent of banks with assets over \$100 million—offer MasterCard or Visa cards, usually both.²⁶ Of these, about 3000 banks and other institutions are “issuing banks” and the rest are “participating banks.” An “issuing bank” pays service fees to MasterCard or Visa for the services described above, and determines the interest rates, other fees, and service features of cards issued to cardholders.²⁷ It may issue cards either directly or in collaboration with a “participating bank.” A “participating bank” may provide cards bearing its own name, but it purchases card services from an “issuing bank” and consequently adopts the card features and charges of the issuing bank’s card program. Thus issuing banks are the relevant economic units for assessing concentration and competition in the supply of bank card credit.²⁸

At the end of 1984, about sixty-nine million Americans held one or more bank cards, 1.9 cards per cardholder on average. Over fifty-nine million card accounts were active monthly. Outstanding balances on bank card accounts totaled nearly \$55 billion, about \$51 billion of which was on cards associated with the Visa and MasterCard systems.²⁹ In addition to Visa and MasterCard cards, some banks issue their own “proprietary” cards in local markets; an example is Citibank’s “Choice” card in the mid-Atlantic states. Some independent firms issue credit cards through selected banks; American Express’ “Gold Card” is one such card.³⁰ Local and proprietary cards are more likely to offer unique features such as variable or bracketed interest rates,³¹ rebate programs, and combinations of lower annual fees and higher interest rates or vice versa, although many Visa and MasterCard programs offer these as well.³² For example, Citibank’s Choice card requires no annual fee and offers rebates for frequent users, while CoreStates Bank of Delaware offers a Visa account

26. *Id.* at 2, 62.

27. In many cases “issuing banks” are in turn members of regional bank card associations and transact with MasterCard and Visa through these associations. Here as elsewhere we use the term “banks,” for purposes of convenience, to refer to all forms of depository institutions that issue general purpose credit cards.

28. Participating banks are important intermediate consumers between issuing banks and cardholders. They select among the card programs of numerous issuing banks according to their rates and features.

29. NILSON REP. No. 347, Jan. 1985 at 4-6. The *Nilson Report’s* figures for total cardholders are approximations. Administrative data collected by Visa and MasterCard suggest that over 80 million U.S. citizens currently have bank card accounts.

30. Unlike the more familiar “Green Card,” American Express’ Gold Card is a true credit card with both transaction and credit features. See Dugas, *Plastic Prestige: Credit Cards that Make You Somebody*, BUS. WK., Nov. 11, 1985, at 62.

31. Variable rates are rates that fluctuate with changes in specified money market rates; bracketed rates are rates that are lower for accounts with larger credit balances.

32. See *infra* notes 88, 89, & 97.

with high annual fee (fifty dollars) but annual interest rates of 16.9% on monthly balances under \$4,000 and 14.9% on larger monthly balances.³³

The other major type of credit card is the "retail card," issued not by a bank but by a retailer and good for purchases on credit from that retailer only. More retail cards are in circulation than bank cards; ninety-one million Americans carried an average of 3.9 retail cards apiece at the end of 1984.³⁴ However, as one would expect, the average volume of transactions and credit is smaller for retail cards; total outstanding balances were \$45.6 billion at the end of 1984.³⁵ The most widely used retail cards are those issued by Sears, Montgomery Ward, and other large national retailers. Numerous local and regional stores issue credit cards as well. Additionally, most gasoline companies issue credit cards for purchases at service stations selling their brands. Retail and gasoline cards do not utilize inter-bank settlement systems, since all purchases are made from the same company that administers the consumer billing and credit services. Otherwise, they are similar to bank cards in operation and pricing.³⁶ Several larger issuers of retail and gas cards, such as Sears and Shell Oil, now offer cards with expanded features comparable to those of bank cards: acceptability for purchases from sellers other than the card issuer, no annual fee, and rebate programs.³⁷

C. *The Growth of Credit Card and Other Consumer Credit*

Credit card credit is not the only form of consumer credit. Banks, credit unions, and savings-and-loan associations also provide credit, including single-payment loans, installment loans, and revolving credit. Finance companies provide direct personal and consumer loans, and retailers offer a variety of installment plans. The three major automobile manufacturers offer a substantial amount of credit for the purchase of new automobiles through their own finance companies.

Figure 1 illustrates the growth of credit card credit and other forms of consumer credit since the mid-1970's. The area labelled "Revolving" is a

33. *CoreStates Bank Offers Premium Visa Card with Lower Rate, Higher Fee*, AM. BANKER, July 11, 1985, at 16. See *infra* note 97.

34. Cardholders now carry an average of 7 credit cards of all types. Rudolph, *supra* note 8, at 50, 51; NILSON REP., *supra* note 29, at 4.

35. NILSON REP., *supra* note 29, at 4-6.

36. There is one important difference in pricing, which is an artifact of state usury controls and which works to the advantage of bank cards. Interest rates for retail and gas cards are subject to the usury ceilings of the cardholder's state, while rates for bank cards are subject to the ceilings of the card issuer's state. The reason for this difference is discussed *infra* Part I.D.

37. Mitchell, *Card Wars: New Credit Contenders Offer Bargains to Lure Consumers*, USA Today, Sept. 9, 1985, at 12; *Sears Sets Out to Discover America*, ECONOMIST, Jan. 25, 1986, at 74. See also *infra* note 88.

close approximation of credit card credit.³⁸ "Bank Installment" refers to installment loans other than on bank card accounts from banks and other depository institutions. "Retailer Installment" denotes installment sales other than on retail credit cards. "Finance Company" charts personal and consumer-goods loans from finance companies, and "Non-Installment" refers to all single-payment loans other than those due in the first month on credit card and other charge accounts. "Revolving" credit, the fastest growing form of consumer credit, still accounted for only about twenty percent, or roughly \$118 billion, of the \$577 billion in consumer credit outstanding at the end of 1984.

The growth of credit card credit reflects not only increased consumer spending but also increased use of the credit card for consumer purchasing and financing. The increase in card use in turn reflects both increasing use per cardholder and increasing numbers of cardholders. As shown on Table 1, credit card purchasing as a percentage of personal consumption expenditures other than housing grew 19% from 1980 through June 1985, from about 12.6% of expenditures to 15%. During the same period, the average outstanding balance on active Visa and MasterCard accounts increased 28% in real (inflation adjusted) dollars, while the average credit line on MasterCard accounts increased 46% in real dollars.³⁹ The number of active Visa and MasterCard accounts grew by 41%, far outstripping the 9% growth in the adult population.⁴⁰

Two aspects of the growth in credit card use are striking. First, the growth in the number of accounts and in average balances per account has come at a time when interest rates on credit balances have remained relatively constant, generally in the seventeen to nineteen percent range,⁴¹ and when the total costs of credit card credit—taking into account changes in annual fees, service charges, accounting methods, and other pricing factors—may have been increasing.⁴² This indicates a substantial increase in consumer demand for credit card credit. Second, the entire expansion in

38. "Revolving" consists of revolving installment credit issued by banks, retailers, and gasoline companies, plus that portion of non-installment credit consisting of amounts due on charge accounts. The revolving credit component includes a small amount of revolving credit on bank checking accounts as well as credit card accounts, but omits credit card credit on accounts at depository institutions other than commercial banks, which has been growing rapidly in recent years. The charge account component includes balances in 30-day charge accounts such as "travel and entertainment card" accounts.

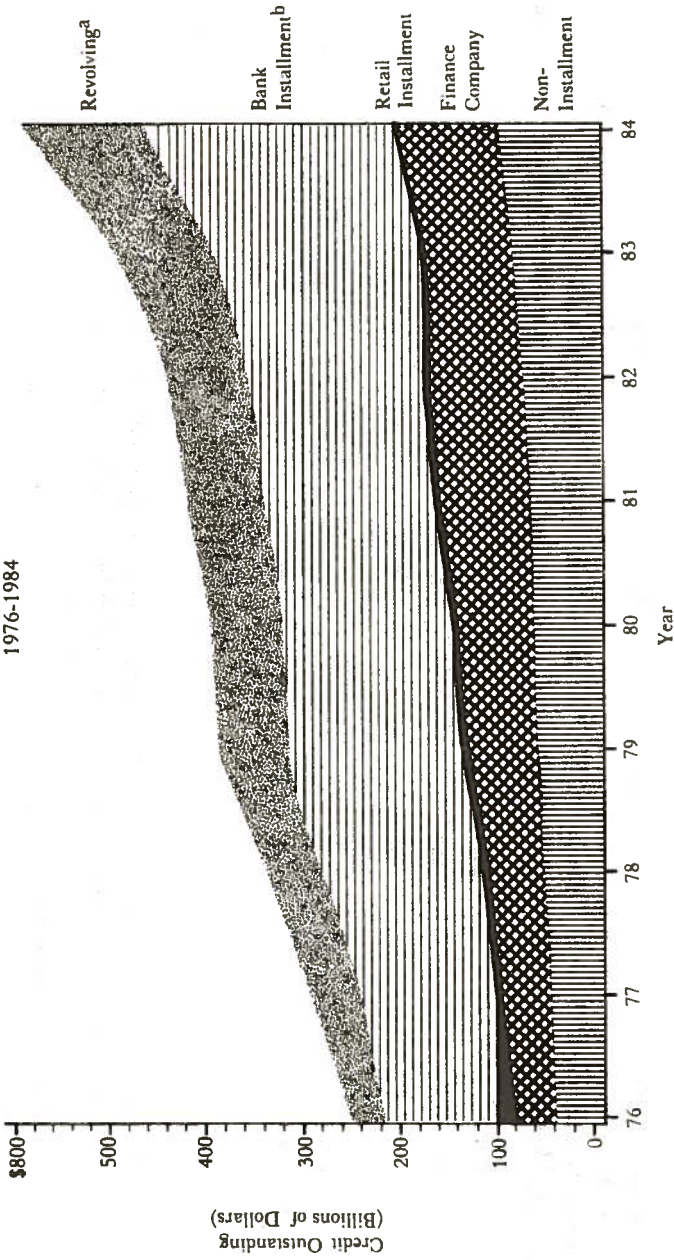
39. Visa does not maintain comparable figures.

40. The portion of bank card purchasing paid for by extended credit with interest (i.e. the portion not paid before the end of the initial one-month "free period") remained constant throughout this period at about 50% of the total dollar volume of purchasing. The portion of bank card accounts paying interest on credit balances increased somewhat, from about 65% to about 70%. The use of extended credit on retail card accounts is apparently somewhat lower, about one-third of the dollar volume of purchasing. See *infra* note 80 and accompanying text.

41. See *infra* Figure 2.

42. See *Hearings, supra* note 8, at 2.

FIGURE 1
Consumer Credit Outstanding
1976-1984



Source: FED. RESERVE BULL., Apr. 1980, at A42; FED. RESERVE BULL., Apr. 1983, at A42; FED. RESERVE BULL., Oct. 1985, at A40.

a) Total revolving credit from banks, retailers, and gasoline companies, plus balances outstanding on charge cards.

b) Includes other depository institutions such as savings and loan associations, credit unions, and mutual savings banks.

TABLE 1
Growth of Bank Card Credit
(1980-1985)

| | Credit Card Purchasing as a Percentage of Non-Housing Expenditures* (All Cards) | Average Outstanding Balance per Active Account (Visa and MasterCard) | Number of Active Visa and MasterCard Accounts (millions) | Active Accounts as Percentage of Population Ages 20 + (Visa and MasterCard) | Average Line of Credit (MasterCard) |
|------------------------------|--|---|---|--|---|
| 1985(2ndQ) | 15.0% | \$653 | 68.9 | 41% | \$1496 |
| 1984 | 15.5 | 650 | 64.5 | 39 | 1457 |
| 1983 | 13.6 | 585 | 54.2 | 33 | 1314 |
| 1982 | 12.1 | 537 | 49.9 | 31 | 1084 |
| 1981 | 12.5 | 532 | 46.5 | 29 | 1035 |
| 1980 | 12.6 | 509 | 48.8 | 31 | 1028 |
| Real Growth 1980-85(2ndQ) | +19% | +28% | +41% | +29% | +46% |

*Purchasing volume derived on basis of data showing that the ratio of outstanding balances to annual purchases is 0.4. This implies credit dollars are turned over 2.5 times per year. Outstanding balances in these calculations reflect the sum of revolving credit balances and charge card balances.

Note: Dollar figures deflated to 1980 levels by Consumer Price Index.

accounts has taken place since 1982. Indeed, the number of active accounts fell between 1979 and 1981, then increased at an annual rate of more than nine percent after January 1982. The contraction in accounts occurred during the period of very high interest rates in commercial money markets, which increased the cost of funds to card issuers. The recent expansion has coincided with the decline in the cost of funds.⁴³ As the margin between credit card interest rates and commercial rates has grown, card issuers have expanded their demographic base, issuing cards to population groups with higher credit risks. These two features of the growth in credit card usage will be important in the discussion of interest rates in Part III.

D. Interest Rate Deregulation

Coinciding with the growth of consumer credit since 1980 has been a remarkable legal development: most states have relaxed or abolished their ceilings on consumer interest rates. As mentioned earlier, practically all states controlled interest rates on consumer credit through the 1970's. Then, between 1979 and mid-1985, eighteen states relaxed their rate controls and another sixteen states repealed their controls outright.⁴⁴

This abrupt change in regulatory policy appears to have been caused by the same factors which brought about many other changes in financial services regulation during the same period.⁴⁵ Beginning in the late 1960's, advances in computer and telecommunications technologies dramatically reduced the costs of storing, processing, and transmitting information. These advances enabled the development of new financial services which integrated services that had previously been separate and could now be offered to larger and more diverse consumer groups.⁴⁶ The introduction of

43. See *infra* Figure 2.

44. The numbers in the text refer to state statutes relaxing or repealing interest rate controls on credit card credit; most of these statutes apply to consumer credit generally (including "direct" retailer, bank and finance company credit) rather than just credit card credit, but the growth of credit card credit appears to have been the motivation for these laws. The numbers are derived from occasional compilations of state consumer finance laws maintained by the Office of General Counsel of the American Bankers Association (on file with the *Yale Journal on Regulation*). See also AMERICAN FINANCIAL SERVICES ASSOC., SUMMARY OF CONSUMER CREDIT LAWS AND RATES (Jan. 1985) (on file with the *Yale Journal on Regulation*). State breakdowns appear *infra* at Table 4.

45. See generally Litan, *Evaluating and Controlling the Risks of Financial Product Deregulation*, 3 YALE J. ON REG. 1 (discussing possible modes of regulating financial services in light of legal and technological developments).

46. T. Huertas, *The Regulation of Financial Institutions: A Historical Perspective on Current Issues*, in FINANCIAL SERVICES, *supra* note 6, at 6, 23-27; Broaddus, *Financial Innovation in the United States—Background, Current Status and Prospects*, ECON. REV., Feb. 1985, at 1, 6-9; Kaufman, Mote, & Rosenblum, *Implications of Deregulation for Product Lines and Geographical Markets of Financial Institutions*, J. BANK RESEARCH, Spring 1983, at 8; Kane, *Accelerating Ineffectiveness of Banking Regulation*, 36 J. FIN. 355 (1981).

these services seriously undermined prevailing regulatory policies, most of which had been established during the New Deal or earlier, when transactions costs in financial markets were much higher.⁴⁷

In some cases the new services effectively circumvented the established regulatory policies without (as of this writing) prompting regulatory change. For example, Merrill Lynch & Company's introduction in the late 1970's of "cash management accounts" integrating banking and securities investment services circumvented the regulatory separation of "commercial banking" and "investment banking." A few years later, Sears, Roebuck & Company introduced retail financial service centers that integrated banking, insurance, product retailing, and securities and real estate investment services. This innovation circumvented not only the separation of commercial and investment banking but also the separations of banking from insurance and banking from commerce. Cash management accounts and retail financial service centers also circumvented federal and state restrictions on interstate banking.

In other cases, however, the new services induced statutory deregulation, as regulated industries lobbied successfully for the right to compete "on a level playing field" with the new unregulated suppliers. For example, money market fund accounts integrated checking and savings accounts (avoiding the prohibition on interest payments on checking accounts), paid market rates on deposits (avoiding the limits on interest rates payable on deposit accounts), and were offered nationwide (avoiding restrictions on interstate banking). High nominal interest rates in the late 1970's made these accounts highly attractive to many depositors compared to regulated checking and savings accounts. Household deposits in these accounts grew from about \$10 billion in 1978 to about \$210 billion in 1982, which led, presumably via political pressure exerted by commercial banks, to substantial deregulation of savings and checking accounts in the Garn-St. Germain Depository Institutions Act of 1982.⁴⁸

The emergence of credit cards had similar causes and consequences. The package of services attached to a modern credit card—especially a bank card with powerful transaction and credit features that depend on

47. The established regulatory policies consisted primarily of (a) price controls, such as the prohibition on interest payments on checking accounts offered by commercial banks and other depository institutions, and limits on interest rates paid on savings accounts offered by commercial banks and other depository institutions, which were established by the Banking Act of 1933, Pub. L. No. 95-369, 92 Stat. 624 (1978) 12 U.S.C. § 21 (1982) and subsequent federal statutes; (b) service market allocation, such as the separation of "commercial" and "investment" banking also established by the Banking Act of 1933; and (c) geographic market allocation, such as restrictions on interstate commercial banking established by the Banking Act of 1933 and codified in scattered sections of 12 U.S.C., and other statutes both state and federal.

48. Garn-St. Germain Depository Institutions Act of 1982, § 1, Pub. L. No. 97-320, 96 Stat. 1469 (1982), 12 U.S.C. § 226 (1982).

sophisticated interbank settlement systems—would not have been possible before the development of modern data processing technologies. The introduction of credit cards enabled the development of a national consumer credit market in which consumers could obtain credit from a large number of banks and commercial firms, distant as well as local. Interstate lending through credit card accounts, like interstate deposit-taking through money market accounts, circumvented legal restrictions on interstate banking, which had restricted the physical locations of banks but not interstate transactions themselves.

In the late 1970's, however, the growth of interstate consumer credit was effectively constrained by state usury laws. The feasibility of large-scale interstate lending raised a legal question which had previously been of little practical importance: if a bank in state A extends credit to a customer in state B, which state's usury law governs the credit terms? If the borrower's (cardholder's) state law governed, then every issuer of bank cards could be obliged to charge numerous different interest rates for cardholders residing in different states. The transaction costs of doing so would not be a serious problem; a bank's computers could be programmed to charge different interest rates according to the cardholder's address.⁴⁹ But the below-market usury ceilings of many states would restrict card marketing on a national scale. In the late 1970's, many states still allowed maximum interest rates of eighteen percent or lower, while interest rates in commercial money markets were so high that consumer loans at these rates were unprofitable.⁵⁰ On the other hand, if the bank's state law governed, then banks located in states with liberal or no usury laws could market their cards nationally, unconstrained by below-market usury ceilings in other states. Consequently, banks intent on developing a national credit card business argued that the bank's state law should control, while banks fearing an invasion of their local markets by out-of-state competitors argued that the borrower's state law should govern.

The Supreme Court resolved the matter in *Marquette National Bank v. First of Omaha Service Corporation*,⁵¹ which held that nationally chartered banks may provide loans at the usury ceiling of the state in which they are located, regardless of the ceilings in force in the borrower's state. A year later, in 1979, South Dakota repealed its interest rate ceiling

49. This is what national issuers of gasoline and retail credit cards such as Exxon, Sears, and J.C. Penney do today.

50. See *infra* Figure 2.

51. 439 U.S. 299 (1978). The *Marquette* decision interpreted a provision of the National Bank Act of 1933, and applies only to nationally chartered commercial banks. *Marquette* has since been extended by statute to state-chartered banks as well. See BANK CARDS, *supra* note 21, at 255; Vandenbrink, *Usury Ceilings under DIDMCA*, *ECON. PERSP.*, Sept.-Oct. 1985, at 25, 26. But issuers of credit other than banks remain subject to the interest rate controls of the borrower's state.

on consumer credit, and Citibank, a national bank with headquarters in the State of New York, promptly relocated its credit card business to South Dakota.⁵² Within five years, two-thirds of the states followed suit by relaxing or repealing their own rate controls.⁵³ The *Marquette* decision, combined with the emergence of credit card technology, ignited a round of usury policy competition in which the states sought both to attract large bank card issuers and to help local banks compete effectively with out-of-state banks.

Whether the results of this deregulation were economically beneficial is addressed in Part III.C (though many readers will be able to guess the answer now). At this point, it is important to note only that the *Marquette* decision and the wave of state interest rate deregulation provided the political background for the national interest rate proposals. Before 1979, interest rates on consumer loans were regulated, more or less stringently, virtually everywhere in the United States. Today they are not, and the new national competition between unregulated and regulated credit card credit has supplied arguments for the national rate control proposals (such as Representative Biaggi's complaint that New York banks charge more for credit than Arkansas banks),⁵⁴ and also presumably the political motivation for proposing them.

II. The Economics of Price Controls

This Part summarizes the economic theory of price controls and discusses recent empirical studies of the effects of price controls in consumer credit markets.

A. *Price Regulation in Competitive and Monopolistic Markets: Theory*

It is conventional in the analysis of price controls to distinguish between controls applied to monopoly firms and controls applied to firms in competitive markets.⁵⁵ Firms in competitive markets cannot charge prices greater than their costs of supply, except in transitory circumstances or unless they collude on price. The reason for this is explained in detail in

52. Rep. Biaggi states:

Consider that in 1980, after losing a battle with the New York State Legislature over the capping of credit card interest rates, Citibank moved its credit card operation to South Dakota, where there is no limit on the amount of interest Citibank could charge its customers . . . just as [when] Maryland [banks] . . . decided to move their credit card subsidiaries to Delaware.

Hearings, *supra* note 8, at 29.

53. *See supra* note 44.

54. *See supra* note 14 and accompanying text.

55. *See, e.g.*, S. BREYER, REGULATION AND ITS REFORM 15-23, 36-70, 240-260, 285-314 (1982); A. KAHN, THE ECONOMICS OF REGULATION (1970); R. POSNER, ECONOMIC ANALYSIS OF LAW 193-209, 251-270 (2d ed. 1977).

any good economics text,⁵⁶ but the essential logic is straightforward: (a) firms will continue to supply a product as long as the market price covers their costs of supply (including a competitive return on investment), and (b) if any individual firm attempts to charge a higher price, its customers will desert it for rival suppliers charging a lower price, thus rewarding those who keep their prices at cost.

A monopolist—a firm that is the only supplier of a product for which consumers have no good substitutes—is not under the same constraint. If a monopolist raises its price above cost, its customers cannot go elsewhere for the same product. Of course, any price increase will cause at least some consumers to purchase less of the product, so even a monopolist will find further price increases unprofitable at some point. In the typical case, however, the monopolist will be able to charge a price that exceeds costs to some extent—the amount will depend on the strength of consumer demand for the product—and thereby earn “supracompetitive” profits.⁵⁷

In monopoly markets, government price controls, such as those imposed by state public utility commissions on electric and telephone companies, may contribute to economic welfare. If the government prescribes a price that just covers the costs of supply, consumers will receive the benefit of the lower price. Output will increase to efficient levels because consumers will demand more at the lower price and the monopolist will meet their demand so long as its costs are covered. The economic purpose of price regulation is to achieve the full economic benefits of competitive markets in cases where, usually because of economies of scale in production, a single firm can supply the entire market most efficiently.⁵⁸

When price controls are imposed on suppliers in competitive markets (where prices approximate cost in the absence of controls), a “gap” between supply and demand will result whenever the price controls are set at below market-clearing levels.⁵⁹ Consumers will demand more of the product or service than at the higher market price, but suppliers will supply less. Both consumers and suppliers will attempt to find ways to close

56. See, e.g., G. STIGLER, *THE THEORY OF PRICE*, 176-91 (3d ed. 3d printing 1967).

57. The “perfect monopoly” and the “perfectly competitive market” are of course paradigms, and firms may be able to charge prices greater than their costs in markets that are highly concentrated but less than perfect monopolies. See Landes & Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937 (1981). But this is detail for present purposes, since the degree of market concentration necessary for above-cost pricing is far greater than exists in the supply of credit card credit. See *infra* Part III.A.

58. This is not to say that price regulation in monopoly markets actually achieves this purpose. It often does not, primarily because of difficulties in making accurate determinations of the costs of supply, and because even accurate cost-based regulation may distort the management incentives of regulated firms. See Kahn, *supra* note 55; Posner, *Natural Monopoly and Its Regulation*, 21 STAN. L. REV. 548 (1969).

59. Where price ceilings are set above market-clearing levels they will have no economic effect at all, other than the wasted expenses of monitoring and administration. We ignore this case here.

the gap between supply and demand. The most efficient means of doing so—raising price—is foreclosed. Only two means of closing the gap remain, and each is harmful to economic welfare.

First, suppliers will attempt to meet the increased demand by raising their prices in ways that are not controlled by the regulatory program. For example, if interest rates on credit cards are set at below the cost of funds but annual fees are not controlled, issuers may raise their fees in an effort to meet their costs. If such pricing responses are feasible, price controls will be circumvented. Consumers will be worse off than before, however, since the new pricing system will be less efficient and hence more costly than the one it replaced. If the alternative pricing system were less costly, it could and presumably would be introduced absent the controls. An example of this type of pricing response was the practice of commercial banks to give premiums, such as free toasters or coffee makers, to new depositors during the era of regulated rates on bank savings deposits; this practice has disappeared now that banks may pay depositors market rates. As we shall see, there are numerous repricing possibilities in the case of credit card credit.⁶⁰

Second, to the extent that price ceilings cannot be circumvented through repricing, suppliers will reduce the quantity or quality of their products or services. They will reduce output or investment to the point where production costs have fallen to the level of the regulated price, and some suppliers (those with relatively higher costs) may withdraw from the market altogether. The quality of the regulated product will deteriorate (as in the cases of railroad regulation in the 1950's and 1960's and rent controls in some cities today) and, to the extent that demand for the poorer-quality product still outstrips supply at the regulated price, consumers will be forced to wait in line to be served (as in the cases of gasoline price controls in the 1970's and rent controls today). Where substitute, unregulated products are available, output of these products will grow at the expense of the regulated product (as in the case of money market funds in the 1970's and early 1980's). Economic losses to consumers will take the form of poorer-quality regulated products and delays in obtaining them, and substitute products that are less desirable in terms of price and/or quality.⁶¹

60. See *infra* notes 96-97 and accompanying text.

61. A few examples of the many studies documenting these effects are A. CARRON & P. MACAVOY, *THE DECLINE OF SERVICE IN THE REGULATED INDUSTRIES* (1981); T. MOORE, *FREIGHT TRANSPORTATION REGULATION* (1972); J. KALT, *THE ECONOMICS AND POLITICS OF OIL PRICE REGULATION* (1981); Breyer & MacAvoy, *The Natural Gas Shortage and the Regulation of Natural Gas Producers*, 86 HARV. L. REV. 941 (1973).

By altering or restricting supply, price controls are likely not only to impose a "dead weight"⁶² economic loss on consumers and regulated suppliers as a whole, but also to redistribute arbitrarily wealth and income among consumers and suppliers. For example, controls usually result in differential gains and losses for different groups of consumers. Rent controls produce windfall gains for those who already have long-term apartment leases and windfall losses for those who are just entering the apartment market; gasoline lines are more harmful to those whose time is more valuable. The amount and incidence of these windfalls will vary from case to case. But in a great number of instances including, as we shall see, the present one, the windfalls are not only arbitrary but perverse, harming those who are less well off and those whom the price controls were ostensibly designed to protect.

Similarly, suppliers who have invested in assets that are specialized in the provision of a product or service will suffer windfall losses from the introduction of a price control program. A classic example is the decline in the market value of residential real estate caused by the imposition of rent controls.⁶³ The specialized MasterCard and Visa interbank settlement facilities could be affected in a similar way by the imposition of credit card rate controls. At the same time, firms well-positioned to supply unregulated substitutes, such as finance companies in the case of credit card controls, could enjoy windfall gains from the sudden increase in demand for their product.

B. *Price Regulation in Competitive Credit Markets: Experience*

The economic consequences of price controls described generally above are well documented in studies of state usury controls. These studies have compared credit markets in states with tighter and looser controls, and in states with and without controls on certain forms of credit.⁶⁴ For example, even before the recent wave of usury deregulation, only sixteen states

62. A dead weight loss is a cost to an economic system considered as a whole: a loss to one individual or group not compensated by an equal gain to another individual or group. In other words, it is an allocative inefficiency which results, for example, when A is willing to sell a product for \$10 and B is willing to purchase at this price, and a government rule (such as a \$5 price ceiling) defeats the transaction. Someone will gain from the price ceiling, because the resources that go into the product will be freed for alternative uses; but this gain must be less than the loss to A and B, because they would have paid more for the resources in the absence of the rule.

63. See Rea & Gupta, *The Rent Control Controversy: A Consideration of the California Experience*, 4 GLENDALE L. REV. 105 (1982).

64. See, e.g., Ostas, *Effects of Usury Ceilings in the Mortgage Market*, 31 J. FIN. 821 (1976); Vandenbrink, *The Effects of Usury Ceilings*, *ECON. PERSP.*, Midyear 1982, at 44. Both articles contain summaries and bibliographies of earlier studies of the economic effects of usury controls, many of which are not cited here. Both articles also include useful graphical presentations of the economics of price controls in credit markets.

controlled interest rates on mortgage loans at a level lower than market rates prevailing in unregulated states. This permitted a comparative study of the effects of price regulation on the non-interest rate terms and availability of mortgages.

In a regression analysis published in 1976, James R. Ostas found that mortgage loan fees, the most obvious repricing alternative under rate controls, were positively related to the amount by which usury controls were set below prevailing market rates. He also found that stricter usury ceilings produced a contraction in mortgage availability: when usury ceilings were set below market rates, fewer mortgages were extended, downpayments were larger (loan-price ratios were smaller), and mortgage terms were shorter.⁶⁵ This suggests that, at least in mortgage credit markets, existing repricing opportunities allow only a partial response to interest rate controls.

Recent studies of non-mortgage interest rate controls have found the same responses: limited repricing and a reduction in supply. Even before the recent wave of state-level deregulation, Arkansas' interest cap of ten percent for all consumer loans was, if not the strictest usury law in the nation, then certainly among the strictest. In that state, commercial banks were found to tie their provision of consumer loans more closely to other bank services, such as savings and checking accounts, and to charge higher fees for these other services.⁶⁶ At about the same time, loan maturities were shorter and minimum loan requirements were larger in Arkansas than in states with more liberal ceilings.⁶⁷

One feature of the Arkansas experience is particularly striking: the state's usury policies appear to have had little effect on the total amount of credit used by consumers in the state. Arkansas consumers were found to rely much more heavily on direct retail credit, and less heavily on other forms of credit, than consumers in other states.⁶⁸ This occurred because retailer-lenders integrated the supply of credit with the supply of products purchased on credit. They were able to offer loans at the usury ceiling while financing the true cost of loans by raising product prices. This response may be thought of as a particularly effective repricing method; it is apparently almost perfectly responsive, and almost impossible to control short of regulating retail prices directly. The retailers' reaction to usury ceilings also can be seen as a differential growth of "unregulated" credit

65. Ostas, *supra* note 64, at 830.

66. A. SULLIVAN, EVIDENCE OF THE EFFECT OF RESTRICTIVE LOAN RATE CEILINGS ON PRICES OF CONSUMER FINANCIAL SERVICES 20 (1980) (Credit Research Center Working Paper No. 36).

67. R. PETERSON & G. FALLS, IMPACT OF A TEN PERCENT USURY CEILING: EMPIRICAL EVIDENCE 34 (1981) (Credit Research Center Working Paper No. 40).

68. *Id.* at 30-31.

supply at the expense of regulated credit. A contemporary study found that when Massachusetts lowered its usury ceiling selectively on small loans, the effect was a substantial reduction in the number of small loans outstanding in the state.⁶⁹ Presumably, the number of loans declined because Massachusetts borrowers lacked good substitutes (only finance companies among legitimate lenders generally make small loans), because they were able to substitute informal loans that were not recorded, or because they were able to make other unrecorded substitutions, such as increasing marginally the amount of their borrowings for larger purchases.

Even where one group of lenders—retailers, for example—is able to increase its supply of credit to make up for a reduction in supply from other lenders, usury controls are still likely to harm consumers. By effectively segmenting the supply of credit and reducing the competition faced by the firms who are superior repricers, usury controls raise net costs of credit. This was the conclusion of one recent study which found that usury controls significantly reduced price competition between finance companies and commercial banks.⁷⁰

Price controls cannot make life less difficult or costly; they have no effect on the scarcity of resources. While price regulations may be useful for ameliorating the effects of supracompetitive pricing in monopoly markets, their application to competitive markets will generally leave suppliers and consumers less well off. The empirical evidence indicates that in credit markets, usury laws have created undesirable changes in the terms and manner in which credit is provided. Only if credit markets were in fact monopolies would it be reasonable to suppose that interest rate controls could be applied without producing these negative effects.

III. An Analysis of the Credit Card Credit Market

As explained in the previous Part, the essential question in determining whether price controls might contribute to economic welfare is the degree of concentration in the market to be regulated. Price regulation would be harmful in a competitive market, but might be justified when the market under consideration is monopolized or highly concentrated. In the latter case, absent controls, suppliers might have the power to charge prices exceeding costs. In this Part, we examine the structure of the credit card

69. R. JOHNSON & A. SULLIVAN, *RESTRICTIVE EFFECTS OF RATE CEILINGS ON CONSUMER CHOICE: THE MASSACHUSETTS EXPERIENCE* 12 (1980) (Credit Research Center Working Paper No. 35).

70. A. SULLIVAN, *EFFECTS OF CONSUMER LOAN RATE CEILINGS ON COMPETITION BETWEEN BANKS AND FINANCE COMPANIES* 20-22 (1981) (Credit Research Center Working Paper No. 38).

credit market and recent patterns in the supply and price of credit card credit.

A. *The Structure of the Market*

The supply of credit card credit from banks, retailers, and others is not at all concentrated. Indeed, it is intensely competitive, approaching the textbook example of an "atomistic" market. Existing data do not permit a precise calibration of market shares of individual card issuers, in part because there are so many issuers, but they do show that even the largest issuers possess only very small market shares. A detailed Federal Reserve Board study, such as that proposed in the Schumer bill, could no doubt generate more refined data than is currently available. There is no reason to believe, however, that the conclusions of such a study would be different from those presented here.

We begin by examining the credit card credit market alone. Although this is not, as we shall see, a separate market in economic terms, it is highly competitive even if one ignores other forms of consumer credit. If credit card issuers faced no competition at all from other suppliers of consumer credit, they would be faced with more than enough competition from each other to resolve concerns about monopoly pricing. As shown in Table 2, the single largest credit card issuer, Sears, accounted for only about eleven percent of all credit card balances outstanding at the end of 1984. The second largest issuer, Citicorp, issues Visa and MasterCard cards and several proprietary and regional cards; Citicorp's combined credit output accounted for only four percent of outstanding balances.⁷¹ The largest ten issuers accounted for only about thirty-four percent of credit card credit. The largest 100 issuers accounted for about sixty-six percent, and the largest 300 accounted for about seventy-eight percent.

This data may be interpreted using the Herfindahl-Hirshman Index (HHI) of market concentration, widely employed by economists and used by courts and the Department of Justice to measure concentration and competition under the antitrust laws. The HHI is calculated by squaring

71. Exact figures are presented in Table 2, which includes data for other forms of consumer credit as well. The market-share data in Table 2 include not only outstanding balances on true credit cards that would be regulated by the proposed interest rate ceilings, but 30-day balances on "travel and entertainment" cards (such as American Express) and other charge cards lacking a credit line. The available firm-specific data are categorized in this way, and there is analytic merit in this approach as well, as explained earlier. *Supra* note 22. American Express cards, which permit purchasers to delay payment for between one and two months, obviously compete with bank, retail, and gas cards. Omitting non-credit card balances would result in a very small increase in the shares of credit balances attributed to issuers of "true" credit cards.

TABLE 2
Credit Card Issuers
(1984)

| | Credit Outstanding (billions) | Percent of Credit Card Credit | Percent of Total Consumer Credit |
|----------------------------|-------------------------------------|-------------------------------------|--|
| Ten Largest Issuers | \$36.8 | 34.0% | 6.4% |
| Sears | 11.6 | 10.7 | 2.0 |
| Citicorp | 4.4 | 4.1 | 0.8 |
| Montgomery Ward | 4.2 | 3.9 | 0.7 |
| Bank of America | 3.3 | 3.1 | 0.6 |
| American Express | 3.2 | 3.0 | 0.6 |
| J.C. Penney | 3.2 | 3.0 | 0.6 |
| First of Chicago | 2.3 | 2.1 | 0.4 |
| Chemical Bank | 1.6 | 1.5 | 0.3 |
| Chase Manhattan | 1.6 | 1.5 | 0.3 |
| Manufacturers Bank | 1.3 | 1.2 | 0.2 |
| Top 100 Issuers (estimate) | \$71 | 66% | 12% |
| Top 300 Issuers (estimate) | \$84 | 78% | 15% |
| Total Credit Card Credit | \$108.0 | 100.0% | 18.7% |

Source: NILSON REP., No. 347, at 4-5 (Jan. 1985); NILSON REP., No. 337, at 4-5 (Aug. 1984); NILSON REP., No. 338, at 4-5 (Aug. 1984); NILSON REP., No. 339, at 6-7 (Sept. 1984).

Note: Author's estimates derived by taking sums of published outstanding balances for top 100 and 300 bank cards in 1983 and extrapolating to incorporate 1983-84 growth and non-bank credit card balances.

the market shares of individual firms and adding them together. Thus, the HHI for a market with one firm is 10,000 (100×100), for a market with four firms of equal size it is 2,500 ($4 \times (25 \times 25)$), and for a market with ten equal firms is 1,000 ($10 \times (10 \times 10)$). The Department of Justice considers markets with an HHI of less than 1,000 to be "unconcentrated," those with an HHI of 1,000 to 1,800 to be "moderately concentrated," and those with an HHI of over 1,800 to be "highly concentrated."⁷² The market concentration for credit card supply is extremely low by this measure; even if credit card issuers were the only source of

72. *Justice Department Merger Guidelines*, 42 ANTITRUST & TRADE REG. REP. (BNA) No. 1069, at S5-S6 (June 17, 1982) (special supplement). It should be emphasized that even "highly concentrated" markets may feature vigorous price competition, and there are many such markets in the U.S. economy; the Department merely uses these categories as guideposts to judge when mergers may lead to undue increases in concentration.

consumer credit in the U.S. economy, the HHI would be between 200 and 225.⁷³

This analysis assumes that the different types of credit cards compete with each other, and that the credit card market is nationwide rather than local. Just as Sears, Roebuck competes with many other firms in the sale of retail merchandise, so the Sears card competes with bank cards in the sale of such merchandise on credit. Many gasoline stations accept bank cards in addition to those issued by their own suppliers. Moreover, even where credit cards are not substitutable as transaction devices (for instance, one generally cannot use a gas card to purchase non-automotive products on credit), the credit they supply is highly substitutable. This point is explained below in the discussion of competition between credit card credit and other forms of consumer credit.

Across the nation, hundreds of large firms and thousands of smaller ones issue credit cards, but a much smaller number of firms is likely to serve any given locality. Observe, however, that all ten of the largest card suppliers issue credit cards nationally. A citizen of Washington D.C. may obtain card credit from J.C. Penney and Sears, as well as Hechinger's and other local merchants, and from Citicorp (issuing from South Dakota), Chase Manhattan (issuing from Delaware), and Bank of America (issuing from California), as well as from local banks such as Riggs Bank. Since the ten largest firms compete in all local markets, as do many smaller national and regional banks, savings-and-loans, credit unions, and retailers, local markets remain highly competitive. Even if a local market were served only by the largest ten national firms plus ten local card suppliers of about equal shares, the HHI for this market would still be only about 600.

The market for credit card credit is, however, the national market rather than a series of local markets. The purpose of analyzing market concentration is to understand pricing behavior. One wants to know whether, if one firm set prices higher than costs of supply, other firms would be in a position to take business away from that firm, so that the higher price would be unprofitable. For this reason, one includes in a "relevant market" not only the firms currently serving it, but also those who would serve it if existing firms raised their prices. If a small town has only one insurance seller, that seller is not a "monopolist" even if everyone in town purchases insurance only from it. If it charges excessive

73. The sum of squares of the "market" shares of the largest 10 credit card issuers is 185, and the tenth issuer has a market share of 1.2%. Thus the maximum possible HHI for all credit card suppliers—if all remaining issuers also had 1.2% shares and constituted, therefore, 55 firms—is 264. But in fact there are hundreds of additional suppliers, only a few of which have shares exceeding one percent, so the HHI is probably only a little over 200.

prices, other sellers can easily expand their territories to include the town, or townspeople can purchase their insurance from distant carriers by mail or telephone.

Thus, any local credit card market should include not only those issuers serving it at any one time, but additional issuers who could easily enter if the existing firms raised their rates above competitive levels. The number of such potential entrants does not equal the universe of all U.S. card issuers because, ironically, state usury laws make it unprofitable for many banks located in states with strict usury ceilings to seek out-of-state customers for their cards.⁷⁴ The number, however, is still very large. The non-regulatory costs of entering a new territory consist of the comparatively small costs of postage and supplies for a solicitation campaign; new bank and retail cards routinely enter new regional markets far afield of their bases of operation. The emergence of nationwide credit cards is one of a number of recent developments making the provision of financial services far more competitive than in the past.⁷⁵

While the supply of credit card credit is itself highly competitive, it also competes with numerous other forms of consumer credit. These include credit supplied by finance companies, and credit supplied by retailers, manufacturers, and depository institutions without credit card programs. In many cases the substitutability of such other forms of credit is direct and obvious. For example, one may purchase a new kitchen appliance or stereo system not only with credit card credit but also with a loan from a finance company or on direct credit from the retailer. But because credit itself is highly fungible, the potential for substitution is much broader than this, and includes forms of credit available only for items not purchased with credit cards.

To illustrate, assume that interest rates for credit card credit were set at excessive (above-cost) levels, but that rates on loans for purchasing new automobiles were competitive. Although automobiles are not ordinarily purchased with credit cards, automobile credit would nonetheless substitute for credit card credit; consumers would tend to purchase automobiles more extensively on credit, and other goods less extensively with credit card credit. Of course not all consumers would do this, but many certainly would.

74. Some supporters of national credit card controls have complained that cards issued by banks in states with strict usury ceilings are not available in other states. But the reason such cards are not widely available is that it is unprofitable for banks subject to interest rate controls to issue them widely. Banks in states with low usury ceilings generally limit cards to preferred local customers who are known to them as good credit risks; banks in uncontrolled states are much more likely to issue cards nationwide. This point is discussed in detail in Part IV.A, *infra*.

75. See Loevinger, *Antitrust and the Banking Revolution*, REGULATION, July-Aug. 1985, at 19.

Virtually all consumer products can be purchased on credit, yet Table 1 indicates that only about fifteen percent of purchasing is in fact made on credit card credit. This means consumers have ample opportunities to shift their "debt portfolios" from one category of spending to another in response to different "prices" for different categories of credit. The result is that the interest rate on, for instance, a retail credit card is constrained by rates for automobile credit in about the same way as it is constrained by rates on other credit cards. As a practical matter, even home mortgages are highly substitutable for credit card credit, although we have not included mortgage borrowing in our analysis.

TABLE 3
Breakdown of Consumer Credit
(1984)

| | Credit Outstanding (billions) | Percent of Total Consumer Credit | Percent of Credit Card Credit |
|------------------------------------|-------------------------------------|--|-------------------------------------|
| All Consumer Credit | \$577.1 | 100.0% | |
| Credit Card Credit | 101.6 | 17.6 | 100.0% |
| Bank Card Credit | 60.5 | 10.5 | 59.5 |
| Retail Card Credit | 36.7 | 6.4 | 36.1 |
| Gasoline Card Credit | 4.3 | 0.7 | 4.2 |
| Bank and Retail Installment Credit | 262.2 | 45.4 | |
| Finance Company Credit | 96.7 | 16.8 | |
| Non-Installment Credit | 116.6 | 20.2 | |

Source: FED. RESERVE BULL., Sept. 1985, at A40.

Market concentration in the supply of consumer credit, and the market shares of even the largest suppliers of credit cards, are vanishingly small. Table 2 gives an approximation of the shares of consumer credit in 1984 offered by credit card issuers, and Table 3 shows the share of total consumer credit issued through credit cards compared with other sources of credit.⁷⁶ According to these figures, all credit card credit combined accounted for only nineteen percent of outstanding consumer credit in 1984.⁷⁷

76. The totals for credit card credit in Tables 2 and 3 differ slightly because the figures are derived from different sources.

77. It is not possible to estimate market shares or an HHI for the entire consumer credit market because this would require combining card credit and non-card credit for individual banks and, in many cases, retailers. The necessary data are not available.

B. Pricing Behavior: Credit Card Interest Rates

The rate of interest on credit card credit, as measured by the Federal Reserve Board's calculations of national average rates, has remained quite constant at about eighteen percent since credit cards came into widespread circulation in the early 1970's. Credit card interest rates have been higher and steadier than rates for other forms of consumer installment credit, secured and unsecured, available from commercial banks, although they have been lower than rates for both secured and unsecured loans from finance companies. Credit card rates have also been far less volatile than rates for commercial credit. Figure 2 plots these rates over time.⁷⁸ While proponents of credit card controls have focused exclusively on the level and stability of credit card rates since 1981, when commercial rates were declining,⁷⁹ card rates were also stable between 1977 and 1981, when commercial rates more than doubled, and were even higher relative to commercial rates in the mid-1970's than they are today.

Effective interest rates paid by credit card borrowers are actually somewhat lower than the nominal rates, since most card issuers charge no interest during the initial one-month "free period," and many cardholders pay their entire balances during this period. According to bank card statistics compiled by MasterCard and Visa, about thirty percent of all card accounts are paid monthly, without incurring any interest charge.⁸⁰ Moreover, cardholders who use their cards purely as a transaction device tend to use their cards more intensively (making more or larger purchases), so that about fifty percent of the dollar volume of credit card purchases are paid without incurring any interest. The remaining balance, which is financed with credit, earns interest for about five months on average. Together these figures imply that five-sixths of all outstanding balances are earning interest at any point in time. Thus, an average nominal interest rate of eighteen percent translates to an average effective interest rate of about fifteen percent. This must be taken into account in any comparison between credit card credit and other forms of consumer credit.

Credit card interest rates are nevertheless higher and more stable over time than rates in commercial money markets, but this is to be expected. The cost of providing credit is only part of the cost of doing business in

78. Figure 2 displays the prime rate and percentage yield on three-month Treasury bills (T-bills). The yield on three-month T-bills would be the reference rate for determining interest rate ceilings under one of the credit card proposals. The reference rate in the other proposals, six-month T-bill rates and the Federal Reserve discount rate, are generally very close to those on the three-month T-bill.

79. See A. FOX, *supra* note 12, at 1.

80. These figures and the statistics immediately following are derived from proprietary data supplied by MasterCard and Visa on file with the author. Aggregate data on retail (non-card) installment credit are unavailable.

the credit card market. According to the Federal Reserve Board's most recent "functional cost analysis" of selected commercial banks, only forty-two percent of the total costs of providing bank card services consisted of costs of funds in 1984.⁸¹ Processing, debt-collection, bad-debt losses, and other administrative costs incurred in providing consumer credit vary only slightly with the amount of a loan; the costs of processing a \$500 loan are little different from those of a \$2000 loan. For this reason, interest rates (price as a percentage of the amount of the loan) must be higher for smaller loans in order to cover costs.⁸²

Credit card interest rates are higher than rates on some other forms of consumer credit, but this also should be expected. Credit card credit is distinctive in many ways that affect the cost of providing it. It is often extended in small amounts; it can be drawn upon without notice at point-of-sale, with instant authorization from the lender for larger purchases; it can be repaid on highly flexible terms at the borrower's discretion; it is made available to large and heterogeneous populations; and it is unsecured. By contrast, bank installment loans often include individual credit investigations which are charged to the borrower as a flat fee. The credit checks result in a credit portfolio that is of lower risk, and therefore lower cost, to the bank than the portfolio of credit card credit.⁸³ Automobile loans are highly secured, often approximating leases.

The fact that credit card interest rates have generally not declined with the decline in commercial money market rates since 1981 does not suggest that card suppliers have "market power" over their rates. The monopolist, or any other firm with market power to charge prices greater than costs, sets prices in order to maximize profit based upon the costs of supply and the strength of market demand. If a monopolist's costs fall, so does his profit-maximizing price. Even if all credit card credit were supplied by a single firm, and consumers had no alternative sources of credit, this would explain none of the divergence between commercial costs and credit card interest rates since 1981.

Several plausible explanations have been offered for the recent stability of credit card rates. These include the claims that the cost of funds to banks and other large organizations includes not only current short term interest rates but also longer term borrowing from previous periods, that deposit interest rate deregulation has increased banks' costs in recent

81. FEDERAL RESERVE BOARD, *FUNCTIONAL COST ANALYSIS, 1984 AVERAGE BANKS* 38 (1985).

82. See Peterson, *Pricing Consumer Loans and Deposits*, in *HANDBOOK FOR BANKING STRATEGY* 544 (R. Aspinwall & R. Eisenbeis eds. 1985).

83. Finance company loans also involve credit investigations, but are generally extended in smaller amounts and to a riskier group of borrowers than bank loans. The administrative costs per loan dollar are presumably higher than those for either bank installment or credit card loans.

years, that bankers may have expected commercial rates to rebound to high levels, and that "rate increase notification" regulations make it more costly to raise than to lower rates.⁸⁴ But surely an important part of the explanation lies in the development and growth of the credit card market and the distortions of state usury laws.⁸⁵

In the early and mid-1980's, when credit card rates were substantially higher than rates for commercial credit, the credit card market was still new and was developing rapidly. Then, in the late 1970's, commercial rates began to increase sharply but card rates did not, because they were constrained by state usury ceilings (generally at about eighteen percent). Credit card programs became increasingly unprofitable and, following the Supreme Court's *Marquette* decision, the states faced strong incentives to raise or repeal their usury ceilings; the wave of state usury deregulation followed.⁸⁶ This gave many bank card issuers the pricing flexibility they previously lacked, but commercial interest rates began to decline at about the same time, while the demand for credit cards apparently increased. The result was that credit card interest rates neither rose nor fell; instead, issuers greatly expanded the quantity of credit they made available to individual cardholders and solicited new accounts from groups such as college students, which were riskier and therefore costlier to serve than those who had received cards earlier.⁸⁷

84. See H. Scott, *Interest Rates on Consumer and Commercial Loans: Why the Difference?* (May 17, 1985) (Report 85-818 E, Congressional Research Service, Library of Congress); *Hearings, supra* note 8, at 182 (statement of Robert W. Johnson, Director of the Credit Research Center). One explanation that is not plausible, however, is this one: "some consumer groups felt that banks overdid their claim to increased costs and did not reduce consumer rates in order to finance overseas loans and absorb expected large losses on these investments." H. Scott, *supra*, at 29. A bank or other firm cannot recoup losses in market A by raising prices in market B. Assuming the firm was doing the best it could in market B before the reversals in market A, a price increase in market B will result in a loss relative to the prior situation. This is so whether the firm is a "perfect competitor" or a "perfect monopolist" or anything in between.

85. *Hearings, supra* note 8, at 40, 44 (statement of Martha R. Seger, Board of Governors of the Federal Reserve System).

86. See *supra* Part I.D.

87. Editor's note—While this issue of the *Yale Journal on Regulation* was being assembled, several editors received a mail solicitation for Visa and MasterCard from the Bank of Boston. The text of the mailing illustrates the lengths to which banks have gone in order to attract large groups of poor credit risks. The mailing states: "It's never been easier to apply for a Visa or MasterCard. Introducing the 4-minute application from the Bank of Boston. We've simplified the application process just for students. And unlike most application forms, this one's so short and easy to complete, you won't get writer's cramp." The circular then provides a list of "all the great things about having your own credit card." These promises include the following: "Establishing a credit rating is sure to put a smile on your face"; "[g]reat for those essentials like that new Talking Heads tape. . .and that new stereo to play it on"; and "[f]or those dire emergencies. . .like getting to the Bahamas on Semester Break." The application, which advertises itself as the "Fast Track to Visa and MasterCard," includes blanks for major field of study and grade-point average. The flyer's most prominent feature, however, is a cartoon drawing apparently intended to present graphically the benefits of holding credit cards. It depicts two happy students, one holding silverware and wearing a lobster bib, and the other wearing a portable stereo and headphones (and presumably listening to the Talking Heads). In the background

This account is supported by the data presented earlier in Table 1. In 1981 and 1982, when interest rates in commercial money markets were very high and the wave of state usury deregulation was just underway, average bank card balances and the number of bank card accounts were growing very slowly or declining. Later, as rate deregulation took effect and costs of funds declined, credit card accounts, average balances, and credit lines grew dramatically.

This explanation, like the others mentioned above, is necessarily based on short-run suppositions, as any explanation of current pricing patterns must be. The explanation has the virtue, however, of being consistent with economic theory and the available facts. The recent pattern of output is precisely the opposite of what one would expect if the assumptions underlying the proposed interest rate ceilings were accurate—that is, if card issuers had been freely providing bargain credit in the early 1980's while gouging cardholders more recently. It is, however, consistent with the operation of competitive markets for firms, faced with declining costs and growing demand, to expand output and improve product quality at a constant market price. That is just what happens when a credit card issuer offers more features and larger credit lines.⁸⁸

The recent pattern may or may not persist in the future. A number of major banks, such as Manufacturers Hanover Trust and CoreStates, have recently announced substantial reductions in interest rates on their card programs.⁸⁹ The reductions may prove temporary or may augur the end

is a travel bag, presumably packed for a Bahamian excursion. The advertised interest rate is 17.04%.

88. Credit card issuers have used a number of competitive devices to make their cards more attractive to consumers. For example, Wells Fargo Bank in San Francisco gives its credit card customers one "Wells Dollar" for every \$5 they charge. "Wells Dollars" can be used to buy discounted catalog merchandise. Wells Fargo cardholders may also enjoy discounts on airline tickets, car rentals, and subscriptions to *The Wall Street Journal*. *A New Marketing Blitz in the War of the Plastic Cards*, BUS. WK., July 23, 1984, at 126. First Chicago offers cardholders free travel-accident insurance up to \$100,000, and checks that can be drawn against a customer's card credit to pay merchants who will not accept plastic. *Id.* Sears anticipates that holders of its new Discovery card will be able to withdraw cash from automatic teller machines, make payments to Sears' Allstate Insurance Co., and transfer funds to various accounts from Sears' Dean Witter brokerage arm. All transactions will appear on one monthly statement. Ellis, *Mighty Sears Tests Its Clout in Credit Cards*, BUS. WK., Sept. 2, 1985, at 62. The Bank of New York has offered holders of its Visas and MasterCard numerous enhancements, including a 10% cash refund on hotel accommodations booked through the bank's toll-free travel service number. Kuntz, *Credit Cards as Good as Gold*, FORBES, Nov. 4, 1985, at 234. Citicorp's Choice card rebates 0.5% annually to customers who run up charges of \$600 or more per year. *Id.* at 236.

89. Manufacturers Hanover cut its annual rate on credit cards from 19.8% to 17.8% in October 1985. The bank then sent out eight million new cards and claims to have added hundreds of thousands of new customers. *Sears Sets Out to Discover America*, ECONOMIST, Jan. 25, 1986, at 74. The Bank of New York has lowered its rate to 16.98%. The Wash. Times, Oct. 25, 1985, at 10C, reprinted in *Hearings*, supra note 9, at 111. Some banks in strict-control states, see Table 3 supra, use their lower rates to compete nationally. Connecticut's Society for Savings provides Visa and MasterCard cards at 14.9%, while the First National Bank of Pine Bluff, Arkansas, issues cards with a 12.5% rate. Dunn, *Finding a Cheaper Way to Charge*, BUS. WK., July 8, 1985, at 109.

of the recent period of increasing demand and expanding credit service. One can only speculate which it will be, but one can say with confidence that the result will be determined by the decisions of suppliers and consumers in a highly diverse and competitive market for credit card credit.

IV. The Effects of Credit Card Rate Ceilings

This Part describes the empirical evidence on credit card supply and demand in regulated and unregulated markets. It assesses the implications of this evidence for the proposed national regulations.

A. *The Impact of Rate Ceilings: Regulated vs. Non-Regulated States*

The pattern of recent growth in credit card credit across states provides further evidence of competition in the credit card market and the potential harm of national interest rate controls. As explained in Part I.D, interest rates on bank cards are subject to the usury laws of the card issuer's state rather than the cardholder's state. At present, twenty-three states maintain what may be called "strict" interest rate controls over credit card credit (ceilings of eighteen percent or lower); thirteen states plus the District of Columbia maintain "moderate" controls (ceilings higher than eighteen percent); and fourteen states have no controls.⁹⁰ This legal regime, along with the low cost of administering card programs in interstate markets, means that issuing banks supply a range of states and that consumers have a wide degree of choice between "regulated" and "unregulated" bank cards.

A resident of Louisiana, for example, may obtain a credit card from a local bank, subject to the Louisiana interest rate ceiling of eighteen percent, or from a bank in Alabama where the ceiling is less restrictive (twenty-one percent on the first \$750 of credit and eighteen percent on higher balances), or from a bank in California, South Dakota, or Illinois where there are no rate controls at all. On the other end of the spectrum, the Louisiana resident might obtain a card from a more strictly regulated bank in nearby Arkansas, where, as in the Biaggi bill, the ceiling is the lower of seventeen percent or five percentage points over the Federal Reserve discount rate (or about twelve percent at present).⁹¹

People's Bank, via a full-page advertisement in *The New York Times*, recently promoted its 15.9% interest rate on Visa and MasterCard balances as "one of the lowest interest rates in the state of Connecticut. Not to mention one of the lowest in the country, for that matter." N.Y. Times, Mar. 30, 1986, at CN 15.

90. Data supplied by Office of the General Counsel, American Bankers Association (on file with the *Yale Journal on Regulation*). The breakdown used in the analysis later in this section is slightly different, dividing states into "strict," "moderate," and "no control" categories as of the end of 1982.

91. In these cases, the Louisiana resident's choice may be limited by the business judgment of

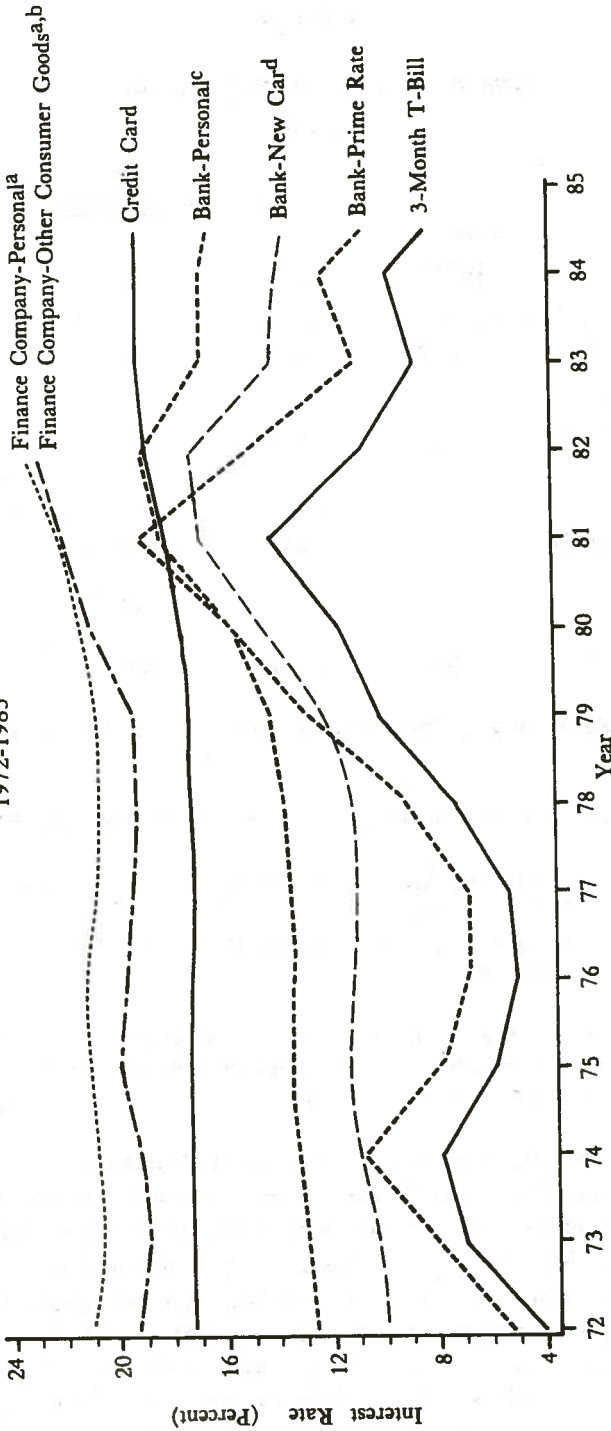
The current situation makes it possible to evaluate with some precision the recent growth in credit card credit and the proposition that interest rate ceilings benefit consumers when issuers' costs of funds are declining. The recent wave of state usury deregulation was followed by a steep decline in money market interest rates, as shown in Figure 2. If it is true that interest rate ceilings are beneficial to cardholders, then card credit supplied by banks in states that retained their rate ceilings should have grown relatively faster than unregulated bank card credit. But if rate ceilings injure cardholders by restricting output, then credit supplied by banks from states that had abolished or liberalized their rate ceilings should have grown relatively faster.⁹² The evidence is that unregulated credit has been growing much faster than regulated credit since 1980. As shown in Table 4, revolving credit issued by banks in states with no credit card interest controls has been growing more than twice as fast as credit from banks in states with moderate and strict rate controls. In all, credit from "no control" states grew fourteen percent as a portion of national revolving bank credit from 1980 through the end of 1984, while credit from "moderate control" states fell twenty percent and credit from "strict control" states fell fourteen percent.

Data on revolving bank credit is only an approximation of bank card credit—it includes balances on check revolving credit accounts, but omits balances on cards issued by depository institutions other than banks. Table 5 therefore presents similar calculations, derived from data maintained by Visa U.S.A., for credit on Visa cards by state. The results are very similar. The number of Visa cards issued by banks and other depository institutions in "no control" states grew at a far higher rate than those

banks in nearby states not to solicit out-of-state accounts. But to the extent this is so, it results from the state interest rate restrictions themselves, rather than from any inherent legal or economic limitations on interstate provision of credit card credit.

92. Divergent trends in state bank card credit would fail to test the desirability of usury controls only if consumers were generally unaware of bank card interest rates and tended as a group to choose regulated or unregulated cards for some fortuitous or inexplicable reason. But federal law requires detailed and frequent disclosure of credit card and other consumer credit interest rates, and surveys show that cardholders are generally highly knowledgeable concerning card interest rates, even more so than for other forms of credit. See *Hearings, supra* note 8, at 192 (statement of Robert W. Johnson). In addition, "participating banks" serve as intermediate consumers in many cases and will have detailed knowledge of the rates charged by various issuing banks. But even if cardholders were ignorant of interest rates and unregulated banks were able to fool consumers into accepting excessively high rates, this would not explain the growth of unregulated cards relative to regulated cards documented in the text.

FIGURE 2
Consumer and Money Market Interest Rates
1972-1985



Source: FED. RESERVE BULL., July 1983, at A28, A43; FED. RESERVE BULL., Sept. 1985, at A24, A41.

a) The finance company services were discontinued after 1982.

b) Other consumer goods excludes autos and mobile homes.

c) Beginning in 1980, 24-month personal loan rates are used instead of 12-month rates.

d) Beginning in 1980, 48-month new car rates are used instead of 36-month rates.

TABLE 4
Growth in Bank Revolving Credit
(1980-1984)

| | Real Growth 1980-1984 | Share of U.S. Revolving Credit | | |
|---|--------------------------|--------------------------------|--------|----------|
| | | 1980 | 1984 | % Change |
| States with No Interest Rate Controls ^a | 83.5% | 54.9% | 62.5% | 13.8% |
| States with Moderate Interest Rate Controls ^b | 30.5 | 21.5 | 17.3 | -19.5 |
| States with Strict Interest Rate Controls ^c | 39.7 | 23.6 | 20.2 | -14.4 |
| Arkansas | -4.8 | 0.17 | 0.10 | -41.2 |
| All States | 62.7% | 100.0% | 100.0% | |

Source: Federal Reserve Board; Consumer Price Index; A.E.C.S. REV., June-July 1985, at 18-19 (Table 6).

- a) "No control" states are AZ, CA, DE, IL, MT, NH, NJ, NM, NV, NY, OR, SC, SD, VA.
- b) "Moderate control" states are AL, CO, DC, IA, ID, IN, KS, KY, MA, MD, ME, MS, OH, OK, RI, TN, TX, WI, WY.
- c) "Strict control" states are AK, AR, CT, FL, GA, HI, LA, MI, MN, MO, NC, ND, NE, PA, UT, VT, WA, WV.

Note: Breakdown is as of August 1982. Subsequently, three additional states (IA, ID, and NE) abolished rate controls on credit cards and one additional state (UT) relaxed its controls from 18 percent to a higher ceiling.

issued from states with interest rate controls, and increased their share of national credit on Visa cards by over thirteen percent between 1980 and mid-1985. During the same period, cards issued from states with moderate rate controls fell twelve percent as a share of national credit on Visa cards, and cards from states with strict controls fell twenty-three percent. Thus, while some card holders in the regulated states surely received some benefits from lower interest rates, the decreased availability of such credit, especially as compared to that available in the unregulated states, indicates that as a group the consumers are worse off. If the benefits to

TABLE 5
Growth in Visa Card Credit
(1980-1985)

| | Real Growth 1980-1985 (2dQ) | Share of U.S. Visa Card Credit | | |
|--|--------------------------------|--------------------------------|--------|-----------------------|
| | | 1980 | 1985 | % Change 1980-1985 |
| States with No Interest Rate Controls | 135.0% | 57.3% | 62.0% | 13.4% |
| States with Moderate Interest Rate Controls | 81.8 | 19.7 | 17.3 | -12.2 |
| States with Strict Interest Rate Controls | 58.4 | 23.0 | 17.7 | -23.0 |
| Arkansas | 11.3 | 0.23 | 0.10 | -47.8 |
| All States | 106.5% | 100.0% | 100.0% | |

Source: Proprietary information from Visa U.S.A. on file with the author; Consumer Price Index.

Note: State breakdown same as on Table 4.

consumers of regulated credit were greater than its costs to consumers, regulated credit would have been growing rather than declining.⁹³

Tables 4 and 5 include a separate breakout for the State of Arkansas, which has the state usury program most like those in the national proposals, and which has been offered as a model by proponents of national rate controls. Arkansas did far worse than other "strict control" states, and was near the bottom of all states in all comparisons. Revolving credit issued by Arkansas banks actually declined in real terms between 1980 and the end of 1984; only Kentucky banks did worse. Visa card credit issued by Arkansas banks grew only slightly—eleven percent over a period of four and one-half years. This was less than anywhere else in the nation except for two states where Visa credit declined in real terms: Louisiana, which has a flat eighteen-percent usury ceiling, and Alaska, the only other state with a "floating" usury ceiling similar to those in the proposed national ceilings.

This market evidence is unambiguous: as money market rates have fallen, unregulated card credit has become increasingly more successful with consumers than credit subject to interest rate ceilings. Card credit

93. From 1980 to 1984, the share of revolving credit for states with no rate ceilings increased 13.8%, while the share for states with rate ceilings decreased 16.9%. From 1980 to 1985, the share of Visa card credit for unregulated states increased 13.4%, while the share for regulated states decreased 18.0%.

subject to moderate ceilings has in turn been more successful than credit subject to strict ceilings, and credit card credit subject to strict "floating" ceilings has been least successful.

To say that less regulated credit has been "more successful" with consumers is not, of course, to say that consumers prefer higher interest rates to lower ones, other things being equal. To the contrary, it is because we know consumers prefer lower prices that we know other things must not be equal in the present case.⁹⁴ The relative success of unregulated cards must be due to their superior quality, measured both by service features and availability. Banks from states with no usury controls appear to be the most aggressive marketers of bank cards. They offer a variety of different cards with features appealing to different groups of consumers, promote their card programs nationwide, and solicit new cardholders among riskier demographic groups such as students, individuals of modest means, and individuals with no credit history. Banks from states with strict controls, on the other hand, appear to be highly restrictive in issuing cards, limiting them, for example, to longstanding local depositors and executives with firms that do business with the bank.

TABLE 6

Visa Charge-offs as Percent of Total Purchases
(1984)

| | <u>Charge-off Rate</u> |
|--|----------------------------|
| States with No Interest Rate Controls | 1.38% |
| States with Moderate Interest Rate Controls | 0.89 |
| States with Strict Interest Rate Controls | 0.85 |
| All States | 1.18% |

Source: Proprietary information from Visa U.S.A. on file with the author.

Note: Charge-off data are for bad debt only and do not include charge-offs for fraud. State breakdown same as on Table 4.

94. Actual interest payments may not vary that much from state to state, however, which strengthens our conclusions. Interest rates may not be much different between unregulated bank cards and those subject to moderate controls; notice that the recent rate reductions, such as those announced by CoreStates and Manufacturers Hanover, appear to be primarily by banks whose card interest rates are not regulated. Even where rate differences are substantial (as between unregulated cards and those in the strictest control states) the absolute difference in finance charges paid by cardholders may not be large.

Some supporting evidence is presented in Table 6, showing the "credit charge-off rate" (the percentage of credit volume written off as bad debt) for Visa cards in our three categories of states. While the charge-off rate is quite low in all states, it is substantially higher in states without interest rate controls than in states with controls. This indicates that unregulated bank card programs are much more likely to take business risks in order to supply cards to a greater number of consumers, and that regulated programs are more likely to restrict access to established customers. The charge-off rate for banks in states with the tightest ceilings (approximating those in the proposed national laws) approaches zero. In 1984 the rate was 0.43% for Arkansas and 0.07% for Alaska, suggesting that banks operating under these conditions can afford to provide credit only to a very few select individuals.

B. *The Potential Impact of a National Interest Rate Ceiling*

The national interest rate ceilings currently under consideration in the Congress, which would float at five or six percentage points above rates in commercial money markets, would seriously bind credit card credit and would presumably bring about the kind of restricted supply described above in Part II. For example, during the period charted on Figure 2 such ceilings would have forced interest rates below market levels for ten of the thirteen years shown, excluding the period from 1979 to 1982. The current ceiling rate would be in the twelve to thirteen percent range, roughly the current rate for secured loans on new automobiles and about one-third lower than the current average market rate for credit card interest.⁹⁵

The first effect of a binding national rate ceiling would be an increase in the demand for credit cards and a decrease in their supply. Card issuers would attempt to adjust to the increased demand by increasing their prices in ways not covered by the national controls. Obvious alternatives would be to raise annual fees, to eliminate the initial "free period" on card accounts, and, in the case of bank cards, to increase the merchant discount fee charged to retailers against their credit card sales.⁹⁶ National controls could, of course, be expanded to cover these aspects of credit pricing, and

95. It is important to note that one could not establish a rate ceiling that was "too tight" just about as often as it was "too loose", and therefore "correct on average". The two kinds of errors would not cancel out. The economic consequences of the binding ceilings in the "too tight" years would not be compensated for in the "too loose" years, since market competition would keep rates at cost whenever the floating ceiling was above market levels.

96. For similar accounts of the probable repricing effects of credit card interest rate ceilings, see *Hearings, supra* note 8, at 40, 47-48 (statement of Martha Seger, Board of Governors of the Federal Reserve System); *Hearings, supra* note 8, at 231, 235 (statement of the American Retail Federation); *Hearings, supra* note 8, at 245 (statement of the United States Chamber of Commerce).

in fact a few states already control cardholder fees, free periods, and merchant discounts. There exist, however, numerous additional forms of repricing that would be much more difficult to control. Card issuers could revise their procedures for clearing and posting card charges so as to initiate both the free and interest periods earlier.⁹⁷ They could establish new or additional charges for initial credit checks, account inquiries, and late payments. And they could require some or all applicants to purchase credit insurance at their own expense, a procedure often followed for non-card consumer loans. Retailer card issuers could raise product prices to all customers or raise prices on those products most frequently purchased on credit. Such changes in product prices would be economically equivalent to an increase in the merchant discount on bank cards, but would be far more difficult to monitor and control. Presumably, they would be considered beyond the appropriate scope of an interest rate scheme.

Pricing adjustments such as those described above would benefit some cardholders and card issuers and hurt others, but their total net effect on economic welfare would be negative. For example, Sears and other large retail card issuers would be in a better position to reprice products in response to interest rate controls than independent retailers which depend on bank cards. In the case of Sears, there is no independent market transaction to be monitored and controlled, as there would be if a small retailer accepts a bank card along with the bank card merchant discount. For this reason, national credit card controls would probably be less harmful to retail cards and large retailers than to bank cards and those retail establishments which rely on them.⁹⁸ Further, some cardholders, such as frequent borrowers, are heavy users of the credit functions of cards. They would prefer the higher annual fees and lower interest rates which would presumably result from national rate control legislation, while cardholders who are heavy users of only the transaction function would be worse off.

Consumers as a whole, however, would be worse off even though some would do better than others. Consumers do not gain when one group of sellers (large national retailers) gains an advantage over another group (the smaller retailers) solely because of a superior ability to adjust to price controls. Some widely marketed bank cards already offer lower interest

97. This has happened in Connecticut, a strict-control state. The Society for Savings, based in Hartford, offers a 14.9% interest rate for cardholders but with no free period; interest charges start accruing as soon as a transaction is recorded. *New Haven Reg.*, Feb. 2, 1986, at F14, col. 3.

98. Indeed it is conceivable, though unlikely, that large national retailers would be net beneficiaries of national interest rate controls, by gaining market shares from smaller retailers who currently rely on bank cards, and from bank card issuers who are currently freer of state usury controls than are issuers of retail cards.

rates and higher annual fees, so that consumers who prefer this option can obtain it with or without rate ceilings. Consumers who prefer lower fees and higher rates, however, would not be able to obtain their own preferred option under interest rate regulation. The general point is straightforward: pricing systems adopted solely in response to government controls on one aspect of price are certain to be less efficient, and to have arbitrary distributive effects among different groups of suppliers and consumers.

Although one can envision numerous possibilities for repricing credit card services, it is unlikely that such adjustments could close the gap between demand and supply created by a binding national rate ceiling. This conclusion follows from the evidence presented in the previous Part on bank card growth in states with different usury policies. If credit cards could be completely repriced in response to usury ceilings, cards issued from controlled states could replicate the prices of uncontrolled cards and one would expect to see no systematic pattern between card credit from the two groups of states. That one instead sees a considerable divergence—even between uncontrolled states and states with “moderate” ceilings only slightly below market interest rates—suggests that the opportunities for repricing are not very substantial as a practical matter. Indeed there are obvious competitive restraints on repricing; competition from charge cards such as American Express restricts the ability of bank cards to eliminate their “free periods,” for example.⁹⁹

It is likely, therefore, that national rate controls would cause a contraction in the availability of credit card credit, partially compensated by an expansion of unregulated forms of credit that are more costly or less convenient, or both. The contraction of credit card credit would presumably be similar to that which has already occurred in states with strict rate ceilings. Depending upon the stringency of the national controls, bank card issuers might withdraw from marketing card services on a nationwide basis, withdraw from marketing to riskier demographic groups such as students and individuals with lower incomes, and restrict their card programs to preferred customers such as longstanding depositors and executives of client firms. All these actions could, and in one way or another would, close the remaining gap between supply and demand after feasible repricing opportunities have been exhausted. They would do so by reducing the cost of supplying credit card credit and increasing the cost of obtaining it.

In the case of the state interest rate ceilings examined above, the

99. This is not to say that issuers cannot reprice at all. See A. SULLIVAN, *supra* note 66, at 12. The point, rather, is that opportunities for repricing are sufficiently limited that national interest rate controls are likely to produce other, non-price responses.

relative decline in credit from controlled states probably had little effect on total outstanding card credit nationally or even in the controlled states, since such a large amount of card credit was readily available from uncontrolled states. Under a binding national rate ceiling, however, out-of-state credit would not be available to fill the gap. The resulting decline in credit card credit would presumably be made up, to some extent, by growth in other kinds of consumer credit. Consumer credit is highly substitutable, for reasons explained in Part III, and studies of state usury controls have shown that even very broad controls often have little effect on the total amount of credit used by consumers.¹⁰⁰ If card issuers tightened their credit standards, those who could not qualify under the new standards might go to finance companies for larger purchases and attempt to arrange direct retail loans for smaller purchases. Loans are unavailable for many kinds of purchases currently financed through credit cards, such as meals, air transportation, and other travel expenses. In such cases, credit may be effectively substituted by drawing larger loans for other purposes, such as auto loans or second-mortgage credit lines at banks, and by paying cash for a larger share of personal expenses.

Studies of usury controls have devoted a great deal of attention to the possible effects of interest rate regulation on the economic welfare of poorer versus more affluent consumers.¹⁰¹ Both in general and in the case of the national credit card proposals, the effect of interest rate controls may be regressive. Less affluent cardholders would probably be the first to be screened out by a restriction in credit card credit through application of tighter credit standards; if, lacking a bank line or a home eligible for a second mortgage, their next best alternative is a finance company personal loan, they are likely to pay considerably higher interest rates than they would have had to pay when credit card credit was unregulated. The distributive effects of price controls are generally quite arbitrary and unpredictable, but it seems reasonable to suppose that individuals of modest means do no worse when credit is allocated by the price system than when it is allocated by the available substitutes: long and impressive credit histories, intensity of use of other services offered by card issuers (such as checking accounts or retail purchases), or subjective administrative judgments.¹⁰²

100. See R. PETERSON & G. FALLS, *supra* note 67, at 26.

101. See Vandenbrink, *supra* note 64.

102. Johnson and Sullivan draw this conclusion in their study of Massachusetts' cap on finance company interest rates:

[T]he consumers excluded from the legal cash loan market are more likely to be black; to rent, rather than own their residence; to have lower income, lower total assets, and less education. They were less likely to have a checking account and thus an established relationship with a bank. In terms of attitudes toward credit, they were more likely to be concerned about the size

Consumers who are denied credit card credit and resort to other forms of borrowing will be worse off even when the explicit interest rate for the substitute credit is not higher, or is slightly lower, than for credit card credit. The most distinctive attribute of credit card credit is its convenience, particularly its availability on demand and its integration with a card's transaction features. Many consumers could reduce their total interest payments at present by drawing larger loans on cars or homes and carrying larger amounts of cash on hand; they do not because the small difference in cost is worth the added convenience. So they would be worse off under credit card controls even if the total amount of credit they used remained unchanged and even if the amount of interest they paid declined.

Finally, national rate controls would cause increased segmentation of credit markets, both by type and by geography. Currently, credit card programs combine large and diverse pools of borrowers with different alternative borrowing opportunities. Credit cards, therefore, compete with many different forms of consumer credit. Interest rate controls would reduce competition between types of credit because card issuers would specialize in lower credit risks, leaving higher risks to a smaller set of remaining sources such as finance companies and smaller retailers.¹⁰³ This effect has already been observed in some credit markets governed by state usury ceilings.¹⁰⁴ There is probably sufficient competition between types of credit suppliers—that is, between competing finance companies, between competing bank cards, etc.—for this segmentation to have only a small effect on competition and interest rates levels in the aggregate. In certain circumstances, however, the effect would be substantial; for example, the wide availability of credit card credit through bank cards places a constraint on the ability of smaller retailers to discriminate in the rates they charge to different credit customers.

Geographic segmentation would be more serious. The emergence of numerous national bank cards, especially following the wave of state usury deregulation in the early 1980's, has had a substantial effect in making credit markets more competitive, especially in smaller communities. The benefits of this increased competition would be lost if national interest rate controls had results similar to those observed in states with

of the monthly payment and less likely to view the annual percentage rate as the most important term.

R. JOHNSON & A. SULLIVAN, *supra* note 69, at 30. To the extent that this group of consumers has benefited from the recent expansion of credit card credit, it will be harmed by renewed price regulation.

103. *See id.* at 260.

104. *See* A. SULLIVAN, *supra* note 70.

strict usury controls: the withdrawal of card programs to state and local markets.

Conclusion

The recent wave of state usury deregulation provides strong evidence of the likely effects of national credit card interest rate controls. In the late 1970's, as commercial interest rates approached the usury ceilings in force in many states, the supply of credit card credit contracted. Since 1981, as interest rates have declined and many states have relaxed their interest rate controls, the supply of credit card credit has increased dramatically, and has increased the most in states that have repealed their controls. Congress should follow the example of the winners rather than the losers in state policy competition; it should acquiesce in the economic expansion that technological progress has brought.