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Statement by

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Member, Board of Governors of the Federal Reserve System

before the

Subcommittee on Consumer Affairs and Coinage

of the

Committee on Banking, Finance and Urban Affairs

United States House of Representatives

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I appreciate the opportunity to appear before this subcommittee to discuss the legislation that has been introduced to require price and term disclosures in credit card applications and solicitations, and establish a nationwide ceiling on credit card interest rates.

Generally, the Board believes in disclosure, and feels it is important for consumers to have adequate information to shop for credit. In considering specific disclosure legislation such as that before the subcommittee, the Board is guided by several basic principals. First, early disclosure rules should be structured so that they provide consumers with essential information, without overloading consumers with less important information, or unnecessarily raising creditor costs. Second, the legislation should limit creditors' compliance costs by providing adequate time to comply with any new disclosure rules. Third, any requirements that are adopted should apply evenhandedly to all competitors.

All of the disclosure bills that have been introduced (H.R. 244, H.R. 515, and H.R. 1086) would add an early disclosure requirement to the Truth in Lending Act for open-end credit card plans. Furthermore, all of the bills appear to require disclosure for all types of credit cards, including bank credit cards, travel and entertainment cards and retail credit cards. Not all of the bills are the same in their scope, however; H.R. 1086 deals only with disclosures in mail solicitations. H.R. 244 and H.R. 515 are broader, and would require disclosures in

all applications for credit cards as well as credit card solicitations.

The credit card interest rate bills would limit the interest rate charged on any credit card transactions. H.R. 78 would limit the credit card interest rate to 5 percentage points above the Federal Reserve discount rate, and H.R. 1267 would limit the rate to 6 percentage points above the average percentage yield for 3-month Treasury bills.

Current Law

Currently, the truth in lending law requires early disclosures for open-end credit plans and credit cards only when creditors engage in advertising. Solicitations for credit card accounts are thus subject to some Truth in Lending disclosure requirements, since they are considered "advertisements" under the statute and the Board's implementing regulation, Regulation Z. The creditor must give additional information about the credit plan, however, only if certain credit terms are stated in an advertisement. For example, if the creditor advertises the plan's annual fee, the advertisement must state the annual percentage rate, as well as any other finance charges that may be imposed.

If none of the specified credit terms are stated in the solicitation the law does not require that price and term information about the plan be given at that time. Consequently, while the act, and the Board's regulation, do at times require that consumers receive price information with solicitations, the

present law does not always require that consumers be given this information before they receive a credit card.

Under the current law consumers must, however, be given full disclosure of the terms and conditions of the credit card program no later than the time that they receive the card. In addition, the regulation provides that a consumer may not be obligated on a credit program prior to receiving complete disclosures; this would include, for example, the obligation to pay an annual membership fee. Therefore, consumers do have an opportunity to review all of the terms and conditions of a credit card plan before using the card or being obligated to pay an annual fee.

The issue of how much disclosure to require in advertisements led the Congress to revise the Truth in Lending Act in 1980. At that time, the Congress cut back on the disclosures required in open-end credit advertisements in the hope that reducing the disclosure burden would promote more advertising, thereby increasing competition.

Legislative Proposals

The proposed bills go beyond the present law by requiring the creditor to include certain disclosures in applications or solicitations for a credit card plan without regard to whether the creditor mentions a particular term. The proposed legislation expands the current statutory requirements for advertising in other ways as well. Creditors would be required to disclose whether or not any time period exists for

credit to be repaid without incurring a finance charge -- a disclosure that is not required by the current advertising rules. Under H.R. 1086, creditors would also be required to include a notice in solicitations telling the consumer that the information given is only a summary of certain credit card terms.

To the extent that the proposed disclosure requirements might discourage open-end credit advertisements, this legislation could have the unintended effect of decreasing rather than increasing competition. We are inclined to think, however, that given the limited scope of the increased disclosure requirements in the bills, particularly H.R. 1086, the legislation would not have this effect. Our impression is that many card issuers are already including in their mail solicitations much of the disclosure information proposed in the bills, and, presumably, have not viewed this as an impediment to advertising.

Requiring disclosure in all applications whether or not the application is part of a mail solicitation -- as H.R. 244 and H.R. 515 do -- might have the adverse effect of reducing advertising of credit cards. Even this appears unlikely, however, since the bills enable creditors to limit their compliance costs. This is accomplished in H.R. 244 by only requiring creditors to tell consumers how to obtain detailed information on the costs of the credit card plan in non-direct mail solicitations, rather than requiring all this information to be included. The compliance costs are limited in H.R. 515 since, for "take one" applications, creditors may comply with the

disclosure requirements by disclosing the prices and terms as of a specified date, and telling consumers that they should contact the card issuer for up-to-date information.

Controlling Costs

Increased disclosure requirements invariably result in some increased costs to the industry. However, additional costs would probably be the least substantial under H.R. 1086, given that it focuses on the narrow area of mail solicitations. In mail solicitations creditors should be able to include current disclosure information without significant burden, since such solicitations are usually offered for a limited time with stated expiration dates.

The burden could also vary depending on the creditor. National banks offering their credit cards nationwide, for example, may be able to have uniform credit terms so that a single solicitation or application would apply to all prospective cardholders. Retailers, in contrast, are generally subject to individual state laws, which would make the use of uniform nationwide documents more difficult. In addition, the costs associated with additional disclosure requirements would probably be proportionally greater for small institutions.

The Board believes that one way to help control costs is to provide sufficient time for creditors to implement the changes made by the legislation. The time periods contained in the bills differ; however, we believe the time period provided in

H.R. 1086 would most effectively minimize the transition cost and burden for credit card issuers.

As a final point, the Board believes that the proposed disclosure rules will be of most benefit to consumers interested in bank and travel and entertainment credit cards, since it appears that retailers do not engage in significant mail solicitation efforts. Of course, when consumers are provided with early information about retail credit cards, they should be provided adequate information about the terms and conditions of those plans.

Credit Card Ceilings

The Board has commented several times on bills that would set floating ceilings on credit card rates that would supersede generally less restrictive state-imposed limits. The Board has on those occasions stated its opposition to those bills which were very similar to the current interest rate bill H.R. 78. In doing so, it has endorsed the principle that--as with other types of credit--consumer loans are most fairly and efficiently allocated where there are no regulatory constraints on interest rates. Indeed, the Board has been concerned about the adverse impact that interest rate ceilings can have on the availability of funds in local credit markets and on individuals with limited access to credit.

In response to a Congressional request made last year, the Board staff prepared an analysis of the economic effects of proposed ceilings on credit card interest rates. A condensed

version of the study, which appeared in the Federal Reserve Bulletin, accompanies this testimony. The following comments focus on the Board's major concerns with proposed limitations on interest rates.

An effort to establish a federally mandated ceiling on credit card interest rates would likely encounter substantial difficulties. From experience with the imposition of credit controls in 1980 and the sharp, unexpected contraction in consumer spending that accompanied them, we know that regulatory measures can have unpredictable and unwanted consequences. Setting a federal ceiling on credit card rates below those that currently prevail in many states would likely reduce the amount of credit made available, forcing consumers to rely instead on less convenient and possibly more expensive substitutes, or to lose access to credit at any rate. Moreover, such a curtailment would be apt to fall most heavily on less affluent borrowers with relatively limited access to other sources of credit. The current ceiling for credit card rates under the proposed bills would be between 10.5 and 12 percent, well below the finance rates that have been typical since credit cards emerged in the early 1960s as a major method of consumer financing.

Furthermore, the imposition of stringent rate ceilings might be countered by a tightening of nonrate credit card terms by card issuers, for example, by increasing annual fees, by levying processing charges on each credit card purchase or cash advance, and by stiffening penalties for late payment or for exceeding the authorized credit limit. Some card issuers also

might begin applying the reduced finance charges from the date of purchase, where permitted, rather than after the grace period expires, and might seek to increase the discount fees charged to merchants who submit credit card vouchers to them for payment.

Turning to the specific provisions of the bill before the Congress, it should be emphasized that credit cards are issued by a broad variety of retail merchants and financial institutions that differ both as to their sources of funding and their liability structures. Under these circumstances, a single index rate would be unlikely to mirror changes in costs for such a diverse array of card issuers. In any case, short-term rates, such as the Treasury bill rate or, the Federal Reserve discount rate, fluctuate a good deal more widely than costs of funds of most lenders. They do so because a lender's overall average cost of funds at any point is a blend of current interest rates and rates on previously issued liabilities, and because market rates on longer-term liabilities--which usually make up part of the cost of funds -- typically vary less than short-term rates.

If the Congress should nonetheless decide to enact legislation, the Federal Reserve strongly recommends against designating the discount rate as an index for setting ceilings on credit card rates. The discount rate, as you know, is the interest rate charged by the Federal Reserve Banks on extensions of short-term credit to depository institutions. Because it typically applies to very short-term loans, the discount rate is an inexact measure of either marginal or average costs of loanable funds, which may reflect a wide range of maturities.

Furthermore, the discount rate is a tool of monetary policy. As such, it is an administered rate that reflects broad policy considerations that frequently are complex, and so may deviate from other market rates, even those for instruments of comparable maturity. It would be wrong, in the Board's view, to employ a tool of monetary policy for this issue.

Another question at issue is whether any regulation of credit card interest rates is more appropriately a matter for federal or for state intervention. In contrast to efforts at the federal level to assure the safety and soundness of financial institutions, the establishment of interest rate ceilings on consumer loans has long been a state prerogative, and one that the Board feels should not be preempted. In recent years, virtually every state has reviewed and overhauled its laws regulating consumer interest rates. After studying the situation in their own jurisdictions, many of these states have opted to raise or remove interest rate ceilings for credit card borrowings. The Board respects the collective judgment of a growing number of states that higher--not lower--ceilings are appropriate to assure that an adequate supply of credit card services is available from lenders located there. Of course, these states retain the authority to lower or restore ceilings if convincing evidence of excessive rates appeared.

In closing, I would like to reemphasize the Board's conviction that financial markets distribute credit most efficiently and productively when interest rates are determined in markets that are as free from artificial restraints as

possible. Efforts to constrain credit card rates through federal regulation are likely to have undesirable side effects in the form of reduced credit availability, especially for those consumers that these bills would seek to aid. Moreover, they may encourage less efficient means of offsetting costs of credit card operations. Accordingly, the Board concludes that it would be inappropriate to impose a federal ceiling on credit card rates.

The Economic Effects of Proposed Ceilings on Credit Card Interest Rates

This article was prepared by Glenn B. Canner and James T. Fergus of the Board's Division of Research and Statistics. Patricia A. Boerschig, Julia A. Springer, and Janice S. Westfall provided research assistance. Footnotes appear at the end of the article.

Most interest rates have fallen substantially since the early 1980s, but those on credit card debt have changed relatively little. This disparity has led to assertions that credit card rates are excessive in view of the decline in funding costs of card issuers. As a result, several bills were considered in the Congress in 1986 that would have imposed a nationwide rate ceiling on credit card accounts.

This article focuses on issues raised by the proposed federal limits on credit card rates, including the likely effects of such ceilings on the availability of credit card services to different groups of consumers. It also explores the consequences, for consumers, of possible creditor responses to rate ceilings such as modifying nonrate prices of card services, altering other terms on credit card accounts, and raising prices on merchandise.

EFFECTS ON THE PROFITABILITY OF CREDIT CARD PLANS

The nationwide ceilings on credit card rates suggested in recent congressional proposals would be more restrictive, on the whole, than the various maximum credit card rates that already exist in many states (table 1). A comparison of typical rates charged on bank credit cards during the 1972-86 period with the ceiling rates that would have applied under either of two proposed bills, S.1603 and S.1922, is presented in chart 1. The Senate bills take an approach similar to that

of two bills introduced in the House. Had either Senate bill been in effect, the more restrictive rate limit would have cut bank card rates during most of the period, and in the absence of compensating changes, it also would have reduced bank card revenues. Rates for retail store credit cards generally have been in line with those of bank cards, so the proposed federal ceilings likely would have reduced revenue for retail credit card plans. Both bank and retail store credit card services and pricing probably would have been altered in reaction to a large cut in revenue. The scope of such adjustments depends to a great extent on current and expected profits on credit card services.

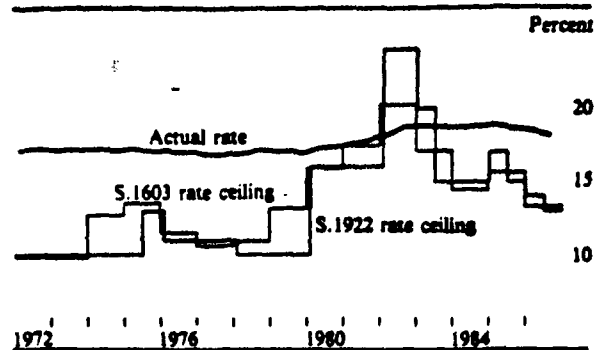
Historical Evidence on Profits

The annual net earnings of bank card plans before taxes averaged 1.9 percent of balances outstanding from 1972 through 1985.¹ Over the

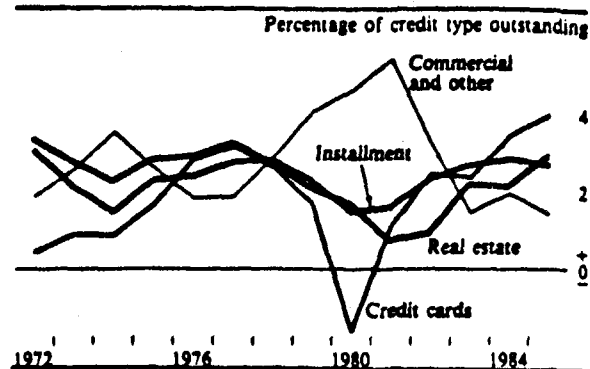
1. Characteristics of legislation considered in the U.S. Senate in 1986 to impose a national ceiling on credit card rates¹

Characteristic	S.1603, National Credit Card Protection Act	S.1922, Credit Card Holder Protection Act
Index	Six-month Treasury bills, average investment yield for preceding calendar year	IRS rate payable on overdue income tax payments and on income tax refunds, calculated by IRS from prime rate charged by commercial banks during an earlier six-month period
Markup	5 percentage points above index rate	4 percentage points above index rate
Current ceiling	13.085 percent for all of 1986	14 percent for January through June 1986, 13 percent for July through December 1986.

1. 99 Cong. 2 Sess.

1. Average actual finance rate on bank credit card plans and maximum rates with proposed ceilings¹

1. Actual rate is an average of the most common rate charged on bank credit card plans by commercial banks reporting to the Federal Reserve.

2. Net earnings before taxes on various types of bank credit¹

1. Based on annual data from the Federal Reserve's Functional Cost Analysis.

same period, average net returns on other major types of commercial bank lending were significantly higher: 2.3 percent on real estate mortgages, 2.4 percent on consumer installment debt, and 2.8 percent on commercial and other loans. Of course, there have been substantial year-to-year variations. For example, the average profitability of bank cards rose to 3.4 percent in 1984 and to 4.0 percent in 1985—a high for the 1972–85 period. However, before 1984 the profitability of bank card plans often was low relative to that of other major types of bank lending (chart 2). Thus, the more reliable indicator of long-run bank card profitability seems to be an average derived from periods of low as well as high profitability rather than from the atypical experience of recent years.

Annual data on earnings of retail card plans are not available. However, two national surveys of retailers were conducted on behalf of the National Retail Merchants Association in 1968 and 1985 and a study of retailers in New York State was made in 1973. The studies indicate that on average—not considering profits on associated merchandise sales—such credit card plans consistently operated at a loss.²

The unusually high level of bank credit card profits in 1984 and 1985 is subject to differing interpretations, and definite conclusions will require additional evidence. But the most likely explanation involves a combination of favorable economic trends and structural changes in credit card regulation. Credit card profits clearly benefited from the drop in funding costs in recent

years. Although such costs constitute a much lower proportion of total costs for credit card operations than for other major types of bank lending, the sharp decline in market interest rates has contributed significantly to the recent improvement in profits on credit card plans. In addition, the relaxation or removal of regulatory constraints on credit card interest rates in many states in the early 1980s has helped increase profits. These actions were taken after credit card issuers experienced a severe squeeze on profits in the 1979–81 period.

Another factor in the 1984–85 rise in bank card profitability was the major improvement in the quality of issuers' credit card portfolios following the economic disruptions of the late seventies and early eighties. Credit card issuers responded to falling profits by adopting much more selective credit standards in an effort to control costs. Also, many credit card accounts were terminated because of delinquencies and payment defaults. Because the remaining account holders were relatively good credit risks, delinquencies fell to a historically low level in early 1984. As credit card issuers generally have returned to less restrictive credit standards, and as some issuers have undertaken aggressive marketing programs, collection problems have increased again. But such problems remained at low to moderate levels throughout 1984 and early 1985.

It seems doubtful that the increase in profitability reflects diminished competition in the credit card industry in light of the number and variety of credit card issuers. Competing credit

card plans within an area often include those offered by several regional and national firms in addition to those of local retailers and financial institutions. The diversity of credit card pricing schemes, the heavy volume of solicitations, and the pace of entry by new competitors seem inconsistent with a general absence of competition. Moreover, the rapid development of competing sources of revolving credit—such as lines of credit secured by residential equity and overdraft credit lines on checking accounts—reinforces competitive pressures on the credit card industry. These considerations suggest that the recent high levels of bank card profits are unlikely to persist. Thus, longer-term profit experience seems to provide a more reliable basis for evaluating the need for regulation of credit card rates.

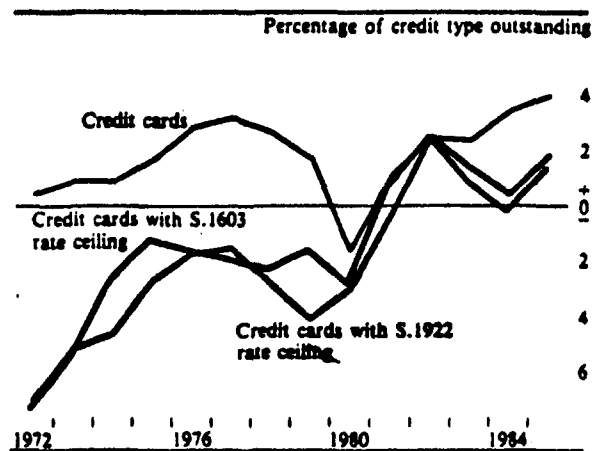
In sum, the evidence suggests that profits on credit card plans at banks typically have been low, while those on retail credit plans generally have been negative. Therefore, it seems unlikely that card issuers could absorb significant reductions in revenue from finance charges over the long term merely by accepting lower profits.

Estimates of Profitability under Proposed Rate Ceilings

Estimates based on data from the Federal Reserve's Functional Cost Analysis for commercial banks suggest the extent to which bank card profits could be cut by the proposed nationwide rate ceilings. Each of the lower lines in chart 3 shows an estimate of net earnings before taxes on bank credit card plans as a percentage of credit outstanding, assuming that one of the nationwide rate ceilings proposed in S.1603 and S.1922 had been in effect. The top line on the chart shows the actual profit experience of commercial bank credit card lending, as previously shown in chart 2.¹

According to these estimates, bank credit card plans would have lost money in 10 of the 14 years from 1972 through 1985 under the rate ceilings in either S.1603 or S.1922 and would have earned only marginal profits in two of the years. These estimates suggest that if such rate ceilings were enacted, the pressures to make cost and revenue adjustments would be intense.

3. Net earnings before taxes on credit card plans and estimated earnings under proposed rate ceilings¹



1. Based on annual data from the Federal Reserve's Functional Cost Analysis.

CREDIT CARD USE AND REPAYMENT PATTERNS

Some of the changes that credit card issuers might make in response to reduced profitability include cutbacks in the quantity and quality of credit card services, increases in nonrate credit card prices, and boosts in retail prices for some types of merchandise. The ways such changes affect consumers depend on two factors: the prevalence and the manner of credit card use. First, changes in the availability and pricing of card-related services mainly affect consumers who use credit cards—although, as explained later, some indirect effects may be broader. Second, the effect on credit card holders depends on how they use their cards because some credit card fees and charges apply only to consumers who use their cards in particular ways—for example, to obtain cash advances or for long-term borrowing. Accordingly, information about use of credit cards by particular consumer groups is a key to evaluating the impact of a nationwide credit card rate ceiling.

Credit Card Use

During the past two decades the Survey Research Center at the University of Michigan has monitored the use of credit cards. The most recent data are for 1983. Overall, 62 percent of all

2. Proportion of U.S. families with selected characteristics that use various types of credit cards, selected years, 1970-83

Family characteristic	Any credit card			Retail card		Bank card		
	1970	1977	1983	1977	1983	1970	1977	1983
<i>Family income (1982 dollars)^a</i>								
Less than \$5,000	15	21	18	15	14	2	8	4
\$5,000-7,499	19	24	29	19	25	3	4	12
7,500-9,999	19	27	33	22	26	2	7	19
10,000-14,999	31	41	49	31	40	7	15	26
15,000-19,999	46	56	64	47	55	12	26	36
20,000-24,999	56	66	71	53	62	15	31	40
25,000-29,999	62	72	78	59	67	21	41	49
30,000-39,999	72	78	87	68	76	25	53	63
40,000-49,999	76	87	88	76	81	31	58	70
\$50,000 or more	82	91	95	79	83	38	73	80
<i>Age of head (years)</i>								
Less than 25	42	39	38	29	32	12	16	20
25-34	61	65	61	53	52	20	40	37
35-44	57	72	73	63	63	23	49	52
45-54	60	68	69	56	61	19	40	45
55-64	46	61	72	52	62	12	36	50
65-74	37	49	60	39	53	7	20	37
75 or more	20	34	35	25	26	3	11	16
<i>Education of head</i>								
0-8 grades	25	30	30	24	25	5	13	14
9-11 grades	40	45	46	39	38	10	21	25
High school diploma	58	62	62	52	55	18	32	36
Some college	59	70	71	59	62	20	41	48
College degree	82	89	90	73	77	34	69	70
<i>Occupation of head</i>								
Professional or technical	n.s.	84	83	72	69	31	59	62
Manager	n.s.	86	86	67	77	30	63	67
Self-employed manager	n.s.	69	75	51	64	16	45	49
Clerical or sales	n.s.	69	73	59	65	21	39	49
Craftsman or foreman	n.s.	61	64	51	55	22	34	37
Operative, laborer, or service worker	n.s.	43	45	42	38	10	18	24
Farmer or farm manager	n.s.	33	37	24	29	7	16	27
All families	50	60	63	50	54	16	36	40

families reported using credit cards in 1983 (table 2). Fifty-four percent used one or more retail store cards, 40 percent at least one bank card, and 26 percent at least one gasoline card. Regardless of the type of credit card, use rises sharply and continuously with family income and with the level of education of the family head.

Retail store cards are the most widely used type of credit card. Their use is significantly more widespread than that of bank cards except among families with incomes of at least \$50,000 or which are headed by persons with a college education. However, the use of bank cards has been expanding rapidly in every family category of income, age, education, and occupation—more than doubling from 16 percent of all families in 1970 to 40 percent in 1983. By contrast, the proportion of families that use retail cards has increased much more slowly, from about 45 percent in 1971 (not shown) to 54 percent in 1983. The more rapid growth in bank card use may

reflect to some extent a substitution of credit card borrowing for other types of installment credit that do not provide flexible repayment terms. It may also reflect abandonment of proprietary credit card plans and 30-day credit programs by some gasoline companies and retail merchants or acceptance of bank credit cards by such firms in addition to the credit arrangements they offer.

Repayment Practices

Analyzing the effect on consumers of the proposed ceilings on credit card rates requires information about the use of the revolving debt feature available with bank and retail cards (an option usually not available with gasoline or travel and entertainment cards). Most revolving credit plans do not charge interest if the cardholder pays the full amount billed before expira-

2. Continued

Family characteristic	Gasoline card			Travel and entertainment card		
	1970	1977	1983	1970	1977	1983
<i>Family income¹ (1982 dollars)²</i>						
Less than 5,000	7	9	3	1	•	•
5,000-7,499	9	8	6	3	•	2
7,500-9,999	11	11	14	2	1	2
10,000-14,999	18	16	16	4	1	2
15,000-19,999	28	24	19	8	2	5
20,000-24,999	33	30	22	7	2	6
25,000-29,999	42	32	31	12	3	10
30,000-39,999	50	41	40	10	10	13
40,000-49,999	57	54	43	13	12	14
50,000 or more	68	67	61	34	31	17
<i>Age of head (years)</i>						
Less than 25	23	12	8	5	2	7
25-34	41	31	20	10	7	10
35-44	39	42	30	11	12	13
45-54	39	39	30	12	12	10
55-64	34	34	37	10	6	11
65-74	25	27	26	6	3	5
75 or more	10	16	13	3	4	•
<i>Education of head</i>						
0-8 grades	14	12	8	3	1	1
9-11 grades	23	18	16	4	2	2
High school diploma	36	29	19	9	4	4
Some college	42	37	30	15	12	11
College degree	68	63	53	22	21	27
<i>Occupation of head</i>						
Professional or technical	n.a.	56	43	n.a.	14	19
Manager	n.a.	54	44	n.a.	22	25
Self-employed manager	n.a.	48	40	n.a.	19	19
Clerical or sales	n.a.	34	30	n.a.	7	11
Craftsman or foreman	n.a.	29	23	n.a.	3	4
Operative, laborer, or service worker	n.a.	16	12	n.a.	1	1
Farmer or farm manager	n.a.	18	18	n.a.	4	1
All families	34	32	26	9	7	9

*Less than 0.5 percent.

n.a. Not available.

1. For each survey year, income is for the preceding calendar year.

Source: George Katona, Lewis Mandell, and Jay Schmiedeskamp, 1970 Survey of Consumer Finances, University of Michigan, Institute

for Social Research, 1971; Thomas A. Durkin and Gregory E. Elliehausen, 1977 Consumer Credit Survey, Board of Governors of the Federal Reserve System, 1978; Robert B. Avery and others, 1983 Survey of Consumer Finances, Board of Governors of the Federal Reserve System, forthcoming.

tion of a specified interest-free period called the grace period.⁴ (Cash advances typically earn finance charges from the transaction date.) Thus, unlike most other kinds of credit, the way the credit card holder uses the account determines whether the account produces any interest income for the card issuer and, if so, how much.

Consumer surveys indicate that credit card users fall into two categories—convenience users and borrowers—according to their customary repayment practice. Convenience users are those who usually pay off their balance in full during the grace period, thereby avoiding finance charges; they use a credit card primarily for the convenience it affords in conducting transactions. Borrowers are those who usually do not pay off their balance in full during the grace period, thereby incurring finance charges. Card

users may occasionally choose to deviate from their usual repayment pattern: convenience users may repay a particularly large purchase in installments; borrowers may sometimes repay the outstanding balance completely.

Responses by consumers to questions about their repayment practices have been consistent over time. In 1983, as in 1977, about half of families that used bank or retail credit cards stated that they nearly always paid their bills in full each month (table 3). Such consumers can be considered convenience users. The remaining families were about evenly divided between those that sometimes paid their bills in full each month and those that hardly ever repaid their entire outstanding balance by the end of the billing cycle.

Repayment patterns vary considerably accord-

3. Distribution of families with selected characteristics that use bank or retail credit cards, by repayment practice, 1977 and 1983¹

Percent

Family characteristic	Nearly always pays in full		Sometimes pays in full		Hardly ever pays in full	
	1977	1983	1977	1983	1977	1983
<i>Family income (1982 dollars)²</i>						
Less than 5,000.....	54	43	28	19	18	38
5,000-7,499.....	52	49	18	25	30	27
7,500-9,999.....	45	51	29	27	27	22
10,000-14,999.....	44	48	31	23	26	28
15,000-19,999.....	41	43	31	27	28	31
20,000-24,999.....	42	41	31	28	27	31
25,000-29,999.....	55	45	27	23	18	32
30,000-39,999.....	56	46	26	29	18	25
40,000-49,999.....	61	43	25	31	13	26
50,000 or more.....	78	60	16	24	6	16
<i>Age of head (years)</i>						
Less than 25.....	38	39	33	28	29	33
25-34.....	43	37	33	29	25	34
35-44.....	41	35	31	33	27	32
45-54.....	47	46	29	27	24	27
55-64.....	60	54	24	24	16	21
65-74.....	77	76	13	12	10	12
75 or more.....	85	76	15	12	•	12
<i>Education of head</i>						
0-8 grades.....	57	49	19	18	24	32
9-11 grades.....	46	47	27	25	27	27
High school diploma.....	46	46	28	26	26	28
Some college.....	47	41	31	29	21	29
College degree.....	58	52	29	26	13	21
<i>Occupation of head</i>						
Professional, technical.....	57	50	30	27	13	23
Manager.....	53	50	32	28	15	21
Self-employed manager.....	65	60	16	24	19	16
Clerical or sales.....	48	44	30	26	21	30
Craftsman or foreman.....	46	44	28	29	26	28
Operative, laborer, or service worker.....	40	40	28	25	32	35
Farmer or farm manager.....	68	74	24	12	8	14
All families that use bank or retail cards.....	49	47	28	26	23	27

¹ Less than 0.5 percent.

1. The 1977 survey covered 2,563 families, of whom 1,444 had bank or store cards. The 1983 survey covered 3,824 families, of whom 2,087 had bank or store cards.

2. For each survey year, income is for the preceding calendar year.

SOURCE: Durkin and Elliehausen, 1977 *Consumer Credit Survey*; Avery and others, 1983 *Survey of Consumer Finances*.

ing to the characteristics of consumers. For example, convenience use rises sharply with the age of the household head. Nevertheless, substantial proportions of families in each income and education category reported that they nearly always paid off their entire outstanding balance in full each month.

POSSIBLE ADJUSTMENTS BY CARD ISSUERS AND EFFECTS ON CONSUMERS

Those who stand to benefit from a nationwide limit on credit card rates are credit card borrowers, who would incur lower finance charges. However, as noted, the low average profitability

of bank and retail credit card plans suggests that card issuers would likely reduce costs and seek more revenue from alternative sources under the proposed nationwide interest rate ceilings. These adjustments by issuers would erode some of the benefits to borrowers and impose costs on other consumers. Although specifying the responses that card issuers might choose is difficult, there are several likely possibilities (table 4).

Restricting the Availability of Services

Perhaps the most obvious cost-cutting step that credit card issuers might take is to tighten credit standards so as to reduce collection costs and

4. Proportion of selected groups of credit card holders affected by possible responses by bank and retail credit card issuers to more restrictive interest rate ceilings¹

Type of response	Bank card holders		Retail card holders	
	Convenience users	Borrowers	Convenience users	Borrowers
<i>Availability adjustments</i>				
Tighten credit standards ²	Some	Some	Some	Some
Reduce or eliminate services ³	Some	Some	Some	Some
<i>Pricing adjustments⁴</i>				
Reduce or eliminate interest-free period	All	Some	All	Some
Alter method for calculating balance on which finance charge is based	None	All	None	All
Increase retail price of merchandise	All	All	All	All
Increase merchant discount fee (to the extent reflected in higher retail merchandise prices)	All	All	All	All
Start charging, or increase, an annual fee	All	All	All	All
Charge a fee for each transaction	All	All	All	All
Charge a penalty fee for exceeding credit limit	Few	Some	Few	Some
Charge a penalty fee for each late payment	None	Some	None	Some
Charge a fee for each cash advance	Some	Some
Charge explicitly for services previously provided without charge ⁵	Some	Some	Some	Some

1. Convenience users typically pay off their balances during the interest-free period, thus avoiding finance charges. Borrowers typically do not pay off their balances during the interest-free period and therefore usually pay finance charges.

2. Tighter credit standards ordinarily would be implemented by raising the minimum score necessary under a credit-scoring system to qualify for a credit card or to obtain a higher credit limit. Factors that have positive weights in most credit-scoring systems include an applicant's income, assets, duration of residence and employment, and previous credit record.

3. Financial institutions might curtail ancillary services that some institutions provide free of charge. Severe losses on credit card

operations might cause some financial institutions to eliminate credit card plans in favor of other types of lending. Some retailers might eliminate in-house credit card plans in favor of accepting other credit cards.

4. The ability of card issuers to make some of these adjustments may be constrained by competition or by state law.

5. Financial institutions and retailers might institute fees for services such as processing credit card applications, replacing lost cards, providing more than one credit card, and sending out each statement. Retailers might begin charging for other services that previously had been provided free of charge.

charge-offs. Such a change would affect mainly applicants for new credit card accounts. However, holders of existing accounts could also be affected by more stringent enforcement of credit limits and by any increase in minimum payment requirements.

Changes in the availability of credit would have the greatest potential effect on "marginal" card applicants, who meet the current minimum requirements for holding a credit card account—such as income level, employment tenure, duration of residency, and previous credit record—but who would not qualify for credit if such standards were stiffened considerably. Although credit decisions are based on many criteria, lower-income persons who apply for credit cards—including recent entrants into the job market and those with low levels of education and skills—are likely to be affected more seriously

by tighter credit standards than those with greater resources.

In addition, financial institutions might curtail credit card enhancements that some of them offer. Such features include protection programs that indemnify credit card holders for charges made with lost or stolen credit cards, discounts on transportation and lodging, rebates on purchases billed to a credit card account, and provision of emergency cash to travelers. If the pressure on profits became severe, some institutions might eliminate their card plans and redirect resources into more profitable lines of business. Retail firms might discontinue in-house plans, with the result that customers would need to rely instead on bank credit cards or other sources of financing. Although elimination of credit card operations is an extreme measure, some retailers and financial institutions in the early 1980s did

curtail or discontinue credit card services in an effort to stem losses.

Raising the Prices of Services or Merchandise

An alternative or complementary way of offsetting reduced interest income is to reprice credit card services. One such change would be to shorten or eliminate the grace period that credit card issuers typically have allowed, although such action would not be possible in states that require a minimum grace period.

Regulations that reduce finance rates would help many credit card borrowers, who would incur smaller finance charges, but that benefit would be offset by the additional finance charges that many convenience users would pay because of curtailments in grace periods. In addition, those borrowers who sometimes make full payment and at such times avoid incurring finance charges also would be adversely affected by a cutback in grace periods.

As previously noted, a large proportion of lower-income credit card users are convenience users. Among card users with less than \$10,000 in family income, 48 percent reported in 1983 that they customarily paid off their outstanding balances each month. An additional 24 percent of lower-income families reported sometimes paying their balances in full. Thus, even among lower-income families, the overall effect of lower rate ceilings combined with shorter grace periods is not clear.

Furthermore, because a substantial proportion of higher-income consumers are convenience users, the net benefit of restricting credit card interest rates also is unclear for them. However, the balance of benefits and costs for the elderly is likely to be negative if issuers shorten or eliminate grace periods on credit cards in response to tighter credit card rate ceilings. Among families headed by persons 65 years or older, convenience users of credit cards constituted three-fourths of credit card users.

A second major type of repricing, available only to retail credit card issuers, is to increase merchandise prices in an attempt to offset all or part of a reduction in finance charge revenue.

The feasibility of this response for particular retail firms would depend mainly on the types of merchandise sold because competition from cash-only merchants might limit price increases to goods that usually are purchased on credit. In this case, only customers who pay in cash for such merchandise would subsidize the cost of providing credit services.

Although increases in merchandise prices can be implemented only by retailers, some issuers of bank credit cards might be able to effect an indirect form of repricing by raising the fee they charge merchants for processing credit card sales. The fee, called the merchant discount, is an operating cost to the retailer. Any increase in these charges could be passed on in higher prices of merchandise, including prices paid by customers who always pay in cash. However, competition with other card issuers, not only for processing credit card charges but also for other merchant business such as demand deposits and loans, could limit the ability of banks to increase the merchant discount fee.

Other card-related fees could also be raised. Seventy percent or more of commercial banks in 1985 charged an annual fee for MasterCard and Visa accounts.⁵ These annual fees could be increased to help generate higher revenue, and additional institutions could implement such fees. Changes of this kind would affect all card holders.

A similarly pervasive effect would occur if a fee for each transaction were charged by card issuers. As of 1985 only about 3 percent of the MasterCard and Visa issuers charged such fees.⁶ With the exception of some gasoline company credit card plans with enhancements, no retail card issuers are known to be charging annual fees or fees for each transaction. However, apart from legal restrictions on fees that exist in a few states, the main barriers to such a practice appear to be the force of competition and customary practice in the retail industry.

Some credit card issuers charge a fee when an account balance exceeds the established credit limit or when problems arise such as late payments or returned checks. Late charges were levied in 1985 by 50 percent or more of commercial banks that issue MasterCard and Visa accounts.⁷ By definition, convenience users typi-

cally do not make late payments. Also, convenience users are less likely to exceed established credit limits because, again by definition, they ordinarily do not carry a balance forward from one billing period to the next. Therefore, an increase in the prevalence of such fees or in their average amount resulting from more stringent rate ceilings would have a greater effect on borrowers.

In addition to the price increases previously described, banks might institute or raise fees for cash advances on credit cards. Banks and retailers might establish or increase fees for processing credit card applications, replacing lost cards, providing additional cards for an account, and issuing monthly statements. Retailers might start charging separately for services that had been provided without charge, such as gift wrapping, delivery, and alterations. Pricing these services seems likely to affect users of bank cards as well as of retail cards and convenience users as well as borrowers.

Unpredictability of Adjustments

For several reasons, adjustments in credit card availability and pricing that would follow the imposition of a restrictive nationwide rate ceiling cannot be foreseen with precision. Card issuers would be likely to adopt different policies depending on how they expected their customers to respond, and additional shifts would occur once those reactions became clear.

Adjustments in pricing and credit availability would be subject to important constraints, including competition from other credit card issuers as well as regulations that limit pricing changes in some states. A few credit card issuers already have adapted to fairly stringent rate ceilings at the state level, and might have little additional adjustment to make. Issuers that operate under less restrictive state ceilings would likely face greater pressures to make changes in credit availability and pricing.

EVIDENCE OF THE EFFECTS OF CREDIT CARD RATE RESTRICTIONS ON CONSUMERS

The preceding discussion described the potential responses of card issuers to restrictive rate ceilings

and the possible consequences of such actions for consumers. Several studies conducted during the past two decades have addressed these issues empirically, investigating creditor responses to differing interest rate restrictions at the state level and evaluating the effects of such reactions on consumers. These research results provide valuable historical evidence that suggests some likely consequences of a national credit card rate ceiling.

Effects on Credit Availability

One major conclusion of the empirical studies is that restrictive rate ceilings for consumer credit are closely associated with tighter lending standards. Most studies have concluded that higher rate ceilings are associated with lower rates of consumer loan rejection or with a larger percentage of loan defaults.⁸ These findings suggest that lenders extend credit to a broader range of credit applicants when the rate of interest allowed on their consumer loan portfolios is higher. Therefore, creditors are likely to apply more accommodative credit standards when the price of credit is determined by market forces, and to use stiffer loan criteria when regulations hold rates below market-determined levels. As noted, not all consumers are affected equally by lower interest rate ceilings. Given the criteria that credit card issuers usually employ for determining creditworthiness, lower-income families and families headed by younger persons would seem to be among those most likely to be denied credit as a result of such ceilings.⁹

Effects on Availability of Bank Credit Cards

A 1979 study by researchers at the Credit Research Center (CRC) at Purdue University is particularly useful for examining the effects on consumers of placing legal restrictions on credit card rates. The CRC study surveyed consumers and creditors in four states with different interest rate ceilings.¹⁰ One portion of the study focused on consumer use of credit cards, including the effects of rate ceilings. Three states—Illinois,

Louisiana, and Wisconsin—had relatively high credit card rate ceilings; the fourth, Arkansas, had an unusually low rate limit.

The CRC study found that the proportion of consumers holding bank credit cards was substantially smaller in Arkansas than in the three states with less restrictive interest rate ceilings. Only 29 percent of the families in Arkansas held bank credit cards (table 5). By contrast, 39 percent of families in the other three states held such cards. These results suggest that more restrictive rate ceilings were associated with more limited availability of bank credit card accounts.

Although this broad perspective on the effects of controls on credit card rates is helpful, it does not show whether specific consumer groups are more likely than others to be affected by a national ceiling on credit card rates. To examine this issue more closely, bank credit card holding was compared according to family income, age of family head, and education for residents of Arkansas and of the three other states (table 5). In most categories, a significantly smaller proportion of families held bank credit cards in Arkansas than in states with less restrictive credit card rate ceilings.

Further analysis of the CRC survey data using multivariate procedures suggests four main conclusions:¹¹ (1) In all four states, the probability that a family held a bank credit card rose as family income, age, and education of the family head increased. (2) Lower- and lower-middle income families in Arkansas, the state with the most restrictive rate ceiling, were less likely to hold bank cards than were equally endowed families in the other states. (3) Higher-income families in Arkansas were as likely to hold bank credit cards as were higher-income families in states with less restrictive rate ceilings. (4) Overall, families residing in Arkansas were significantly less likely to hold bank credit cards than were families living in one of the three states with less restrictive rate ceilings. In sum, these findings suggest that tight ceilings on credit card interest rates are more likely to result in reduced availability of bank credit card accounts for lower- and lower-middle income families than for higher-income families.

Furthermore, a study of the credit card market in New York State supported the CRC evidence

5. Proportion of families with selected characteristics that hold bank and retail credit cards in Arkansas and three other states, 1979¹

Percent

Family characteristics	Holds bank credit card		Holds retail credit card	
	Arkansas	Other states	Arkansas	Other states
<i>Family income (dollars)²</i>				
Less than 6,000...	5	10	24	29
6,000-8,999	16	17	46	38
9,000-12,499	34	22	53	43
12,500-17,499	26	36	69	55
17,500-19,999	41	48	70	64
20,000-24,999	35	52	83	74
25,000-29,999	52	57	78	80
30,000 or more	61	64	88	83
<i>Age of head</i>				
Less than 25	10	19	38	35
25-34	30	42	60	63
35-44	37	53	70	70
45-54	40	47	71	69
55-64	30	42	67	59
65-74	21	28	53	48
75 or more	17	15	40	34
<i>Education of head</i>				
0-8 grades	9	14	39	34
9-11 grades	14	26	38	47
High school diploma	25	39	65	60
Some college	36	52	68	66
College degree	55	72	80	82
All families	29	39	61	58

1. The survey covered 3,572 persons. The four states in the study and the number of respondents in each were Arkansas, 787; Wisconsin, 1,006; Illinois, 1,030; and Louisiana, 749. All surveys were conducted in person between January 6 and June 12, 1979.

2. For calendar year 1978. The median income of U.S. families in 1978 was \$15,000.

SOURCE: William C. Dunkelberg and others, "CRC 1979 Consumer Financial Survey," Monograph 22 (Purdue University, Krannert Graduate School of Management, Credit Research Center, 1981).

about the likely effects of credit card rate ceilings on bank credit card availability.¹² As previously discussed, increases in the minimum acceptable point score needed to qualify for credit cards are one way that card issuers might respond to the imposition of more restrictive rate ceilings for credit cards. In the New York study, the credit scoring system of a large bank credit card issuer and actual data for credit card account holders were used to determine the percentage of credit card applicants that would be rejected if credit standards were tightened.

Table 6 shows the result of successive five-point increases in the minimum qualifying credit score. Raising the minimum score from 19 points to 24 points would have prevented about 2 percent of the bank card holders from obtaining the credit cards they held. If the minimum qualifying

6. Bank credit card holders rejected after simulated increases in the minimum acceptable credit score, by selected scores and income levels¹

Percent

Increase in the minimum acceptable credit score ²	All card holders	Income of rejected card holders (dollars) ³				
		All income levels	Below \$7,500	Below \$10,000	Below \$15,000	Below \$20,000
To 24	2	100	89	89	100	100
To 29	7	100	50	58	82	89
To 34	18	100	30	55	77	91
To 39	36	100	19	42	68	87
MEMO: Percent of total sample of card holders	100	9	17	42	68

1. Simulation uses the credit-scoring model of a large bank card issuer and the characteristics of the actual holders of the issuer's credit card.

2. Minimum acceptable credit score initially set at 19 points.

3. Income is for 1973. The median income of U.S. families in 1973 was \$10,500.

SOURCE: Robert P. Shay and William C. Dunkelberg, "Retail Store Credit Card Use in New York," *Studies in Consumer Credit* 4 (Columbia University, Graduate School of Business, 1975), p. 55.

credit score were raised further to 29 points, then the proportion of card holders that would have failed to qualify for credit cards would have increased from 2 percent to about 7 percent.

As expected, the effect of credit rationing, as simulated in this example, differs according to income level. Eighty-nine percent of those rejected when the cutoff is set at 24 points have incomes below \$7,500, although that income group accounts for only 9 percent of the card holders. No rejected applicant earned more than \$15,000 (that is, as table 6 shows, 100 percent had incomes below that level). At the 39-point cutoff, 13 percent of rejected applicants earned \$20,000 or more. But even though the raising of the minimum acceptable score adversely affects some higher-income card holders, lower-income card holders still bear the brunt of the decrease in credit availability. When the minimum acceptable score is raised to 24 points, 16 percent of those with incomes under \$7,500 are rejected, but only 2 percent of those under \$20,000 (not shown in the table). At a score of 39, the comparable proportions of rejections are 77 percent and 46 percent.

Effects on Availability of Retail Store Credit Cards and on Product Prices

If, as indicated, a federally mandated credit card rate ceiling is likely to result in reduced access to bank credit card accounts, what alternative cred-

it sources would be available to consumers? Analysis of the data collected in the CRC study suggests that consumers in a constrained market substitute sales credit, such as retail store cards, for cash credit, such as bank credit cards.

The CRC study provides information on holdings of retail store cards as well as bank credit cards in states with widely differing rate restrictions (table 5). Three-fifths of all families held retail store cards in Arkansas, slightly higher than the share that held such cards in the three states with less restrictive interest rate ceilings. In contrast, as already discussed, the fraction of Arkansas families that held bank credit cards was significantly smaller than the share of families with such cards living in the other states.

These findings are consistent with the expected effects of rate ceilings. Retailers in Arkansas seem to have been able to maintain credit availability by compensating for lower finance charge revenue with increases in some merchandise prices according to comparisons of prices in Arkansas with those in surrounding states where rate ceilings were higher.¹³ Major appliances were found to cost about 3 to 8 percent more in Arkansas—nearly 5 percent more on average—than in neighboring states.

Further evidence that product prices might rise if a federally mandated ceiling on credit card rates were adopted is contained in the CRC study. Bank credit card issuers in Arkansas were found to charge retailers merchant discount fees higher than those charged in the states with less

restrictive rate ceilings. As with other costs, retailers would be expected to offset these higher fees by increasing product prices. One consequence is that, by paying higher retail prices, consumers who do not use credit cards might subsidize the cost of providing credit card services. Because lower-income families, who have limited access to credit, are heavily represented in the group that purchases products exclusively by using cash, a national credit card rate ceiling might impinge more on this group of consumers than on others.¹⁴

Indeed, under nationwide rate ceilings there might be greater scope for use of merchant discount fees by banks to offset decreases in revenues due to binding rate limitations. Historically, competition for merchant business by banks that operated from states with high rate ceilings, or with none, probably placed some restraint on the ability of banks that operated from states with low rate ceilings to raise merchant discount fees. However, imposition of a nationwide rate ceiling probably would diminish this type of competition. Banks operating from states with relatively high rate limits might, under a lower nationwide ceiling, raise merchant discount fees to offset any reduction in revenues. In the absence of other significant differences, all banks would then be under equal pressure to rely on higher merchant discount fees as a revenue source. If such fees increased, retailers would be likely to compensate by raising some prices.

CONCLUSIONS

Under current patterns of credit card use, about 32 percent of all families incur credit card finance charges and would benefit initially from a federally mandated reduction in credit card interest rates. However, the record of credit card profitability since 1972 suggests that tight rate ceilings such as those proposed in recent legislation would create intense pressures for cost reduc-

tions and revenue increases, actions that seem likely to erode some of the benefits to borrowers and impose costs on other consumers.

Several possible responses by issuers to restrictive rate regulations can be foreseen, but it is difficult to predict which ones would be pursued. In an effort to cut expenses, card issuers could tighten credit standards for new credit card applicants—an action that would especially affect lower-income families, who typically have limited access to other sources of credit. Studies have documented the occurrence of credit rationing in response to tight rate regulation for credit cards and more generally for other kinds of consumer credit. Card issuers could also increase nonrate prices for credit card services in order to offset reduced finance charges. Some of these actions—such as initiating or increasing annual fees, charges for each transaction, and levying fees for particular services to account holders—would impose costs on all credit card users. The effects of other repricing measures, such as curtailing the grace period, would be concentrated among convenience users, many of whom could no longer avoid paying finance charges. Still other changes in credit card pricing would fall mainly on borrowers. Such actions include charging penalty fees for late payments and for exceeding credit limits.

Finally, some adverse consequences of a nationwide ceiling on credit card rates could be felt even by those consumers who do not use credit cards. Retailers might increase some merchandise prices—either to help offset reduced finance charge revenue on retailer credit card plans or as a result of higher merchant discount fees. Research evidence indicates that restrictive ceilings on rates are associated with significantly higher retail prices for some types of merchandise. Higher retail prices could mean that customers who usually pay in cash—including lower-income families who cannot obtain credit cards—would subsidize buyers who use credit card services. □

FOOTNOTES

1. "Functional Cost Analysis: 1985 Average Banks," Based on Data Furnished by Participating Banks in Twelve Federal Reserve Districts (Federal Reserve Bank of New York, n.d.) and the same document for each of the years 1972-84.

2. Retailers presumably would not continue to offer credit cards unless the profits from additional merchandise sales facilitated by credit card plans offset the losses on credit card operations alone. National Retail Merchants Association, "Economic Characteristics of Department Store Credit" (1969), p. 53; National Retail Merchants Association, "Economic Characteristics of Retail Store Credit" (1986), p. 21; Robert P. Shay and William C. Dunkelberg, "Retail Store Credit Card Use in New York," *Studies in Consumer Credit* 4 (Columbia University, Graduate School of Business, 1975), pp. 72-80.

3. The estimates were derived by assuming that lenders would have continued to provide, and that credit card users would have continued to use, exactly the same dollar amounts of credit card services even though the lower rate ceilings were in effect. If forced to operate under more restrictive rate ceilings, bank credit card issuers undoubtedly would take steps to boost revenues and cut costs. But the purpose of these estimates is to show how much the rate regulations would reduce profits, in the absence of any other changes, in order to gauge the pressures on issuers of bank credit cards to make offsetting adjustments.

4. In 1985 approximately 79 percent of commercial banks responding to a survey allowed a grace period averaging approximately 27 days. See American Bankers Association, *1986 Retail Bank Credit Report*, table 120, p. 96.

5. American Bankers Association, *1986 Retail Bank Credit Report*, table 107, p. 89.

6. *Ibid.*, table 112, p. 92.

7. *Ibid.*

8. Douglas F. Greer, "Rate Ceilings and Loan Turn-downs," *Journal of Finance*, vol. 30 (December 1975), pp.

1376-83. Also, consumer survey data indicate that in a state with a low interest rate ceiling (Arkansas), a higher proportion of consumers reported being rejected for consumer credit compared with consumers residing in states with less restrictive rate ceilings. See Richard Peterson and Gregory Falls, "Impact of a Ten Percent Usury Ceiling: Empirical Evidence," Working Paper 40 (Purdue University, Krannert Graduate School of Management, Credit Research Center, 1981).

Robert P. Shay, "Factors Affecting Price, Volume and Credit Risk in the Consumer Finance Industry," *Journal of Finance*, vol. 25 (May 1970), pp. 503-15; Management Analysis Center, "A Study of Bank Credit Card Profitability for Banks Operating in the States of California and Washington" (Palo Alto, Calif., June 1, 1977), p. 73.

9. William C. Dunkelberg, "An Analysis of the Impact of Rate Regulation in the Consumer Credit Industry," in *National Commission on Consumer Finance: Technical Studies*, vol. 6, (Government Printing Office, 1973), pp. 17-20.

10. William C. Dunkelberg and others, "CRC 1979 Consumer Financial Survey," Monograph 22 (Purdue University, Krannert Graduate School of Management, Credit Research Center, 1981).

11. Glenn B. Canner and James T. Fergus, *The Effects of Proposed Credit Card Interest Rate Ceilings on Consumers and Creditors*, Staff Studies (Board of Governors of the Federal Reserve System), forthcoming.

12. Shay and Dunkelberg, "Retail Store Credit Card Use in New York," pp. 55-56.

13. The products most likely to be affected are those that usually are purchased with credit cards—large durable goods especially. See Gene C. Lynch, "Consumer Credit at Ten Percent Simple: The Arkansas Case" (University of Arkansas, College of Business, 1969).

14. Of the families with incomes below \$5,000 in 1982, 84 percent had no outstanding installment debt when interviewed in 1983. In contrast, only 53 percent of the families with incomes above \$50,000 had no installment debt. Robert B. Avery and others, "Survey of Consumer Finances, 1983: A Second Report," *FEDERAL RESERVE BULLETIN*, vol. 70 (December 1984), table 4, p. 860.