Effects of Creditor Remedies and Rate Restrictions[1]

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I. Background

A. *The Nature of the Study*

This study attempts to assess the impact that restrictions on legal rate ceilings and restrictions on creditors' abilities to collect on delinquent or defaulted debts (i.e., "creditors' remedies") have on the consumer credit markets. The methodology employed is to study intensively the behavior of creditors in selected local consumer credit markets. The consumer credit markets studied were located in states with widely differing restrictions on rate ceilings and creditors' remedies. By comparing consumer and creditor behavior under markedly different regulatory environments, we felt we could most readily determine where that behavior was altered by differences in the regulatory environment. The individual local credit markets selected were chosen so that they (i) were well defined, (ii) contained a fairly large proportion of individuals (particularly blue collar workers) that were likely to use consumer credit, and (iii) were, especially in the case of the Northern "paired" cities, highly similar with respect to the socio-economic characteristics of their population.

The states selected for intensive study were chosen so that their regulatory schemes would fit one of the categories: (illustrated in Figure I).

Category I: Consumer credit rate ceilings are restrictive and, in addition, substantial restrictions exist on creditors' remedies in the event debts are defaulted.

[1] The footnotes on this paper were added after it was presented at the conference. The main reason they were added was to improve the paper by taking into account pertinent afterthoughts and some of the constructive comments made by conference participants and colleagues after the paper was written. The footnotes generally develop topics that may have been treated too lightly in the initial draft.

In addition, a unified conclusion section was added after the conference. This paper and the companion Dunkelberg paper were initially planned to be one paper. However, it was not possible to incorporate findings of the Dunkelberg paper before the conference. The new section takes those findings into account in reaching its conclusions.

*Richard L. Peterson is Senior Research Scholar, Credit Research Center, Purdue University. The author wishes to acknowledge the valuable research assistance of John Hancock and to note that this project was supported by a grant from the National Science Foundation, No. APR77-20041. Any opinions, findings, conclusions or recommendations expressed in this publication are those of the author and do not necessarily reflect the views of the National Science Foundation, the Credit Research Center, or Purdue University.

Category II: Rate ceilings are restrictive, but restrictions on creditors' remedies are not unusually severe.

Category III: Rate ceilings are not restrictive, but creditors' remedies are severely restricted.

Category IV: Neither rate ceilings nor creditors' remedies are highly restricted.

Figure I

	Creditors' Remedies Restrictive	Creditors' Remedies Not Highly Restrictive
Rate Ceilings Highly Restrictive	Category I Wisconsin	Category II Arkansas
Rate Ceilings Not Restrictive	Category III Louisiana	Category IV Illinois

The states selected to represent each category were the following:

Wisconsin was selected for Category I because the Wisconsin Consumer Act (WCA) restricts both rates that can be charged on consumer loans and remedies that can be used to collect on defaulted debts. National finance company executives indicated that, because of the WCA, Wisconsin was one of the harder states in which to collect on bad debts. Also, allowable rate ceilings in Wisconsin were among the lower rate ceilings applicable to personal loans. Finally, the industrial area of Wisconsin along Lake Michigan matched up well on a socio-economic basis with the industrial area of Illinois, just south of the Wisconsin border.

Illinois was selected to represent category IV because its rate ceilings were not highly restrictive. In addition, consumer finance company executives indicated that its creditors' remedies were among the least restrictive in the nation and a review of creditor remedy laws indicated that they were less restrictive in Illinois than in most other states. Also, the northern industrial area of Illinois was very similar in socio-economic terms to the lower Wisconsin industrial area, so a ready comparison could be made of similar individuals located in states with substantial differences in consumer credit laws.

Arkansas was selected to represent Category II because its creditors' remedies are not highly restrictive while its comprehensive 10 percent usury law is the most restrictive consumer loan rate regulation in the nation.

Louisiana was selected to represent Category III because it has very high loan rate ceilings (particularly on personal loans). In fact, its rate ceilings are sufficiently high that it is one of only a handful of states where a major finance company reported that it did not feel it necessary to charge legal ceiling rates on personal loans. In addition, Louisiana has some of the most restrictive creditors' remedies in the nation. It is the only state in the nation that has not adopted

the Uniform Commercial Code. Instead, Louisiana law is derived from the Napoleonic Code and requires legal intervention to aid in collecting on defaulted debts. Thus, finance company executives reported that it is one of the more difficult states in which to collect on delinquent and defaulted debts.

Table 1 presents information on the legal rate ceiling and creditor remedy environment applicable to each of the four consumer credit markets selected for intensive study.

B. *Theoretical Background*

Rate Ceilings. Theoretically, rate ceilings, if effective, will reduce the price of credit and affect credit supply and demand. Demand will be increased at lower rates. However, creditors will be less willing to supply as much credit if rates are reduced. Creditors may adjust credit supplied, risk, and expected returns by adjusting credit terms, nonrate credit charges, or their willingness to accept credit risk.

Considerable theoretical and empirical work has been conducted on the impact of rate ceilings on consumer credit availability. See for instance, Avio (1973), (1974), Blades and Lynch (1976), Dunkelberg (1973), Durkin (1974), Eisenbeis and Murphy (1974), Goudzwaard (1968), Greer (1973), (1974), Jadlow (1975), Lynch (1968), National Commission on Consumer Finance (1973), Peterson (1977-e), and Ying (1977). However, many important issues remain unresolved. In particular, it is not fully understood how, and to what extent, credit markets adjust to the imposition of rate ceilings. Possible adjustments include: (i) adjusting credit availability to riskier customers, (ii) altering credit collection policies, (iii) cross-selling credit-related items such as credit insurance or credit application fees, or (iv) raising the prices of credit-related goods. Consumers, in turn, may utilize extra-legal or extraordinary sources of credit if they can no longer obtain the credit they desire from conventional sources. Also, those who can still obtain credit may use more of it, if it is available, at lower rates than would otherwise be the case.

Creditors' Remedies. Theoretically, a restriction on creditors' abilities to collect fully on delinquent or defaulted loans will affect both the demand for and the supply of consumer credit. The demand for credit will rise for any consumer who (i) anticipates that his personal losses would be reduced because of the remedy restrictions, if he were to default, and (ii) thinks that he has a nonzero probability of default on his consumer debts. The presumed value of the remedy protection and, thus, the increase in credit demand, will be highest for those who perceive the greatest benefit from the remedy restrictions or who have the highest expected probability of default. The supply of credit will be reduced by creditors that anticipate higher collection costs or increased losses in a restrictive remedy environment. The supply of credit will be reduced most to those customers who are most likely to default. Reductions in credit supply can either result from explicit credit rationing or, where rate ceilings are permissive, elevated interest charges on consumer debt. In addition to credit availability restriction and possible credit rate increases, creditor remedy restrictions may alter creditors' willingness to supply credit in additional ways. For instance, creditors may try to reduce the probability of default by taking greater collateral,

or more frequently requesting co-signers on consumer loans. They also may devote relatively more resources to credit evaluation or credit collection – albeit such changes in their production functions cannot be achieved costlessly and, thus will likely affect credit rates.

TABLE 1

Data on Loan Rates & Creditors' Remedies for Selected States*

	Ark.	Ill.	La.	Wisc.
I. Remedies				
1. Fees clauses allowed	Yes	Yes		Yes
2. Conf. judgment allowed		Yes	No for small loans and after maturity	No
3. Blanket security	Yes	Yes	Requires notarized list of security	Restricted
4. Waiver of exemption	Yes	Yes	Yes	Yes
5. Repossession	Yes, UCC	Yes, UCC	No self-help	Judicial
6. Deficiency judgment	Yes, under UCC	Limited election	No UCC	Limited election
7. Garnishment (exemptions)	$200/person $900 HH head &25/week	$65/$50 week or 85% or Federal	$70 or prohibited	75% or 40 X min. wage + $15/dependent
8. Wage assignments	Yes but restricted	Restricted	Yes but restricted	Restricted
9. Late charges	No provision	5% or $10	Deemed interest must be less than max. rate 3% or $5	3% or $3
10. Collection charges	No provision	Attorney's & court fees	Attorney's fees up to 25% of balance due	Severely limited, No attorney's fees
II. Rate Ceilings				
1. Retail revolving: rates and point where lower rate is effective	10%	1.8% monthly, 70¢ min bank 1.5% monthly	1.5% A.D.B., monthly 50 ¢ min	1.5%, 1% above $500
2. $3,600 3 yr. new auto loan	10%	14.55%	15.00%	12.83%
3. $1,000 1 yr. small loan	10%	25.67% small loan or 18.57%, CI Loan Act refin. charge	35.45%	18.52% DLA or 16.31% WCA

*Sources are Feldman and Reiley (1977) and Gushee (1978).

The wide variety of possible responses of creditors to restrictive creditors' remedies have not been fully documented. Most studies have not looked at both the credit demand (consumer) and credit supply (creditor) side of the problem simultaneously. However, spurred on by proposed FTC regulations on creditors' practices, partial equilibrium or reduced-form model studies of the economic impact of creditors' remedy restrictions have been conducted in recent years. These studies include those by Barth and Yezer (1978), Greer (1973), Greer and Shay (1973), Johnson (1977), and Peterson (1977-a), (1977-b), (1977-c), (1977-d).

II. Responses of Creditors to Restrictive Rate Ceiling and Creditor Remedy Environments

Possible responses of consumer creditors to rate ceiling restrictions are numerous. If the rate ceilings are binding, creditors will offer credit at lower rates than they otherwise would. To compensate for the lost revenues, they may attempt to raise nonrate fees or charges. They also may take fewer credit risks, by engaging in greater credit screening, requiring more credit insurance (if profitable), offering credit on more restrictive terms, increasing downpayments or requiring greater collateral or security on a debt, or reducing credit costs – by offering larger size loans where overhead costs of loan origination are spread more thinly per dollar of loan extended.

Restrictions on creditors' remedies may also affect creditors' behavior in a number of ways. By increasing creditors' difficulties in collecting on delinquent or defaulted debts, loan losses or collection costs may rise. Creditors may adjust for this fact by raising loan rates, raising nonrate fees (if possible), requiring more credit insurance (if profitable), restricting credit availability to higher risk customers, running more complete credit checks or evaluations on potentially risky customers, requiring greater collateral or more frequent co-signers to reduce credit risks, raising downpayments, or taking other steps to reduce risk exposure (such as by making smaller loans to any one customer, limiting credit maturities, etc.).

Thus, one objective of our research was to analyze differences in creditors' policies among states. To do so, an attempt was made to survey all commercial banks, all savings and loan associations, and approximately half of all finance companies and credit unions participating in each local credit market.

Because of advance letters and phone calls from industry representatives and interviewers, nearly 100 percent of the institutions contacted complied with our requests for personal interviews. However, not all respondents provided all the information requested. In most cases, missing data resulted when respondents did not have all the information requested readily available (this was particularly true for finance companies that were affiliates of larger organizations and for credit unions with unsophisticated internal accounting procedures). Also, many respondents did not make the types of loans (mortgage loans or 48-month auto loans) about which specific questions were asked. In a very few cases, respondents considered the information requested to be proprietary, and would not

supply it. Overall, however, compliance with our requests for information was quite good. The most common reason for nonresponse was that the information was not available, usually because the institution surveyed did not make the specific type of loan about which questions were asked.

Considerable variation was expected in the responses given by individual institutions. However, consistent patterns were expected to exist in the behavior of creditors in states with different credit laws. Thus, the basic assumption of our analysis was that dummy variables that indicated where surveyed institutions were located, in either (i) a state with low loan rate ceilings or (ii) a state with restrictive creditors' remedies could be used to determine if systematic differences existed in the behavior of similar creditors operating in different regulatory environments. Those two dummy variables, plus information on each institution's size, were included in regression equations for each type of creditor to determine if loan rates, terms, security, or risk avoidance varied significantly according to the legal environment in which an institution operated.[2] Tables 2, 3, 4, and 5 summarize the results of those regressions.

[2] The regression equations used throughout the paper were of the form

$$Dep = \beta_0 + \beta_1 \times SIZE + \beta_2 \times D_{RC} + \beta_3 \times D_{CR} + \beta_4 \times D_{MD} + \epsilon$$ where

Dep = the dependent variable under consideration
SIZE = the asset size of the institution
D_{RC} = a dummy variable that takes the value of 1 when rate ceilings are restrictive,
D_{CR} = a dummy variable that takes the value 1 when creditor remedies are restrictive,
D_{MD} = a dummy variable for missing data that takes the value 1 when information on the dependent variable in the equation was either lacking or uncodable.

D_{MD} was used so that regressions could be run even if some data were missing. Its use also ensured that institutions in at least three states had provided useful information in response to each question. Since nonuseful responses were coded as 0, the coefficient for the missing data dummy usually approximately equalled the constant term in the regression.

Ordinarily the rate ceiling, restrictive remedy, and asset size variables explained a very large proportion of the variance in the responses. Usually only a limited number of observations were missing, except for longer maturity loans and certain classes of information that creditors found difficult to report. If a large number of responses were missing, that fact is noted in the summary tables. Because the missing data dummy explained variance when missing data existed, the correlation statistics associated with the regressions summarized in the tables were elevated by the use of the missing data dummy. Even though it was not needed in every equation, its use made regression correlation statistics rather poor indications of the goodness of fit of the equations. Thus, the tables do not report R^2's or other goodness of fit measures applicable to entire regression equations.

In addition, since the paper was not concerned with analyzing the effect of asset size on creditor behavior the tables do not report on the coefficients of the SIZE variable. To report on every coefficient in the equations would needlessly expand the paper since so many regressions are summarized in the tables. Thus, the tables only provide the coefficients for the dummy variables D_{RC} and D_{CR}.

Finally, rather than double the size of the tables to report standard errors or t-statistics, asterisks (*) are used to show which coefficients were significant. For the most part the rate ceiling and dummy variable restriction dummies easily qualified for acceptance as being significant. Many of them would have been significant at the 99.9 percent confidence level. However, the *a priori* confidence level that I was willing to accept for this paper was a 95 percent one-tailed confidence limit; thus, an asterick is used whenever the value of a coefficient satisfies the 95 percent one-tailed criterion.

Table 2 indicates that rate ceilings were effective and binding in the survey states. Unsurprisingly, actual loan rates were lower in states with restrictive rate ceilings; thus, the rate ceilings effectively reduced nominal rates.

The findings presented in Table 2 also suggest that (as expected) loan rates are higher when creditors' remedies are restrictive. A very interesting finding is that *the effect of creditors' remedies restrictions on loan rates is greatest for loans that are associated with the greatest risk.* For instance, the coefficient on the creditors' remedy variable tends to be greater on personal loans than on either auto or mobile home loans offered by the same creditor. Further, the creditors' remedy coefficient is consistently greater on unsecured $2000 personal loans than on equivalent secured personal loans offered by the same creditor. In fact, for both banks and credit unions, the creditors' remedy coefficient is less than half as large on secured as on unsecured personal loans, and for credit unions, it is significantly positive only for *unsecured* personal loans. Finally, for auto loans made by banks and credit unions – with the sole exception of 48-month used car loans, that were made by only a handful of credit unions – the creditors' remedy coefficient is always at least 50 percent larger for used car loans than for equivalent maturity (but less risky) new car loans made by the same type of creditor.[3]

Data presented in Table 3 and Table 4 reflect the impact of restrictive laws on loan terms offered by various institutions. Table 3 analyzes data on loan terms offered by banks and credit unions. Table 4 presents data on auto loans purchased by major auto finance companies. Table 4 considers both loan terms offered the customer (loan/value ratios) and loan terms applicable to dealers (recourse arrangements and dealer reserve requirements).

The data presented in Table 3 provide weak support for our *a priori* expectation that creditors will attempt to reduce their loan risk, and thereby raise their returns, by raising downpayments when the legal environment is restrictive. Only three coefficients in the loan/value ratio equations have the expected significantly negative signs. These coefficients suggest that sample banks offer smaller loans,

[3] Interestingly, the coefficients on the creditor remedy restriction variables for commercial banks are similar to coefficients found in other studies. For instance, the coefficient on 36-month new auto loans is almost identical to the 40 basis point coefficient applicable to 36-month new auto loans made by banks operating in states with restrictive remedy ceilings. That study analyzed bank loan rates in 49 states (Peterson, 1977d).

Further, in their initial studies, Barth and Yezer (1977) found that restrictions on creditors' remedies were associated with several hundred basis point increases in personal loan rates on finance company loans. In this study, coefficients of similar magnitude apply to personal loans made by commercial banks operating in restrictive remedy states. However, the impact of restrictive remedies on rates charged by finance companies and credit unions (see Table 2) are considerably smaller than those applicable to banks. Nonetheless, the several hundred basis point increase for commercial banks is not inconsistent with other previous findings. In addition to Barth and Yezer's findings, Peterson (1977d) found that restrictions on particular creditor remedy restrictions might increase bank personal loan rates by close to 100 basis points. While the cumulative effect of remedy restrictions might be greater, unlike Barth and Yezer's study, Peterson did not attempt to assess the cumulative impact of multiple remedy restrictions.

TABLE 2

Effects of Restrictive Laws on ("Most Likely") Direct Loan Rates Charged by Various Creditors

	Mean Rate Effect (in basis points) for					
	Commercial Banks		Credit Unions		Finance Companies	
Type of Loan	Restrictive Rate Ceilings	Restrictive Remedies	Restrictive Rate Ceilings	Restrictive Remedies	Restrictive Rate Ceilings	Restrictive Remedies
Auto Loans						
New 36 mo.	−60.13[a]	38.38[a]	−70.31[a]	18.62	Direct loan rates not available here	
48 mo.	−83.12[a]	30.03	−29.11	40.14[a]		
Used 36 mo.	−197.69[a]	125.53[a]	−71.23[a]	30.46		
48 mo.	−37.01[b]	45.33[a,b]	−0.10[b]	9.83[b]		
Mobile Home Loans						
10 yr. ($12K)	−70.03[a]	92.42[a]	−8.40[b]	−3.97[b]		
Personal Loans						
1 yr ($1K) uns.	−207.06[a]	286.92[a]	−49.41[a]	58.26[a]	−25.45[c]	33.37[a,c]
2 yr ($2K) uns.	−208.35[a]	223.81[a]	−32.76[a]	42.76[a]	40.62[c]	46.22[a,c]
2 yr ($2K) sec.	−307.64[a]	92.42[a]	−40.47[a]	22.51	40.14[c]	44.48[a,c]

[a]Significant at the 95% (one-tailed) confidence level.

[b]Less than half of the surveyed institutions made this type of loan.

[c]No finance companies operate in Arkansas. Thus, Wisconsin is the only "low-rate" state. However, under Wisconsin's Discount Loan Act, a rate of 18.87 percent can be charged on $2000, 2-year personal loans. At the same time, finance companies in Illinois cannot make loans greater than $1500 (on which they could earn 23.48%) under the Illinois Small Loan Law. Thus, they must make $2000 loans under the Illinois Consumer Installment Loan Law, which allows a rate of only 18.57% on 2-year, $2000 loans. While loans of longer maturity could earn a higher rate of return, the legal maximum 18.57% is *less* (rather than *greater*) than the rate allowed in Wisconsin. This accounts for the "wrong" sign on the restrictive rate ceiling dummy in the finance company equations for $2000 loans.

uns. = unsecured loans; sec. = secured loans.

relative to the value of automobiles financed, in states where rate ceilings are highly restrictive. This was true for all types of bank auto loans studied except 48-month used car loans (which were made by only a limited number of banks).

The data did not confirm our expectation that restrictions on creditors' remedies induce either banks or credit unions to seek larger downpayments on auto loans. In addition, credit union data did not support the hypothesis that credit unions require higher downpayments on auto loans when rate ceilings are restrictive. However, additional data from a limited number of credit unions do suggest that credit unions are likely to require that a higher percentage of both new and used auto loans be secured when they operate in states with restrictive rate ceilings.

The final set of results presented in Table 3 relates to personal loans. Those results are consistent in sign with our theoretical expectations but only the data for commercial banks are statistically significant. Because of the high fixed costs

TABLE 3

Effects of Restrictive Laws on Direct Loan Terms Offered by Different Creditors

	Mean Effect for			
	Commercial Banks		Credit Unions	
Type of Loan	Restrictive Rate Ceilings	Restrictive Remedies	Restrictive Rate Ceilings	Restrictive Remedies
Auto Loans, Loan/ Value Ratios (in % points)				
New Car Loans				
36 mo.	−18.13[a]	9.08	0.68[b]	0.66[b]
48 mo.	− 8.36[a]	1.55	0.18[b]	−0.37[b]
Used Car Loans				
36 mo.	−12.52[a]	0.42	−0.01[b]	1.37[b]
48 mo.	0.84[b]	−2.78	−2.58[b]	− 1.43[b]
Percentage of Loans Secured				
New Auto	N.A.	N.A.	+30.9[ab]	.003[b]
Used Auto	N.A.	N.A.	+29.1[ab]	.057[b]
Personal Loans Minimum Size Loan made (in $)	+524.93[a]	−621.75[a]	+142.50	−51.22

[a]Significant at the 95% one-tailed confidence level.

[b]More than half of all respondents did not make such loans. However, respondents in at least three states made such loans.

N.A. Not available

involved in making and servicing consumer loans, it was expected that lenders would be less willing to make small personal loans when rate ceilings were restrictive. For instance, if it costs $50 to make and service a loan regardless of size, on a $1,000 one-year installment loan nearly 10 percent of the total annual percentage rate of return will be needed to generate the $50 cost incurred just in making and servicing the loan. The remainder of the finance charge return will be needed to cover the return on capital requirements of the lender. Thus, if the lender needs a 10 percent return to provide an acceptable return on capital, he will need nearly a 20 percent return before he will make a $1,000 one-year personal loan. In contrast, under similar conditions, it would take slightly less than 5 percent of the total annual percentage rate to cover the lenders' $50 cost of making and servicing a $2,000 one-year personal loan. Thus, in our example, he would be willing to make such a loan if he could obtain an annual percentage rate of slightly under 15 percent. Consequently, when legal rate ceilings are restrictive, creditors will be able to cover administrative costs and earn their required rate of return only if they make larger minimum-size loans.[4] This is what we found for commercial banks, and the result was highly significant.

Credit unions also made larger minimum size personal loans in states where rate ceilings were restrictive – but the effect was not as pronounced as it was for banks. One reason for this could be that federally chartered credit unions are subject to a 12 percent loan rate ceiling that is usually lower than state legal rate ceilings (except in Arkansas). This fact may have reduced the magnitude of the effect that state rate ceiling limitations have on credit union loan sizes. In addition, many credit unions have lower (explicit) costs for making loans than commercial banks because they have access to volunteer labor and payroll deduction plans. Reduced costs may not apply to all credit unions, however, and that could introduce high variance into our observations. Thus, it is not surprising that while it was still positive and fairly large, the coefficient on the rate ceiling dummy variable for credit unions' minimum loan size is larger than that applicable to commercial banks. Also, in contrast with banks, it is statistically insignificant.

The effect of restricted creditors' remedies on personal loan minimum sizes is not as obvious as that of rate ceiling restrictions. One can hypothesize that where remedies are restricted, in order to minimize risk, creditors may be more inclined to make smaller personal loans, especially to first time borrowers whose

[4] In studies of the consumer loan operations of finance companies and commercial banks both Benston (1975) and Bell and Murphy (1968) found that overhead costs associated with extending and servicing a consumer loan were very significant. Benston found those costs might run as high as $70 (in 1970) on finance company personal loans, and Bell and Murphy found they were approximately $20 for commercial bank consumer loans. Inflation may have raised the minimum cost associated with making a consumer loan. Therefore, for purposes of this example, I have used a $50 cost estimate. This may be too low for some lenders, such as finance companies, that experience high delinquency rates, but it may be too high for other lenders, such as credit unions, that have much volunteer labor. In either case, the substance of our example remains the same; when creditors can only charge "low" rates, they must make larger loans in order to cover the overhead costs associated with making a loan and still earn an adequate return on capital.

potential payment performance is unknown. Smaller loans would reduce the total amount of money at risk if a loan should turn out to be uncollectible. Smaller loans will also tend to place a lower repayment burden on customers, thereby making it more likely that they can conveniently make their payments without experiencing financial distress. These considerations make it likely that creditors will make more provision for extending smaller loans in states with restrictive creditors' remedies, everything else being equal. However, one would not necessarily expect the effect to be large. Indeed, the credit union data do show the expected negative effect, but is not large enough to be significant. Nonetheless, the bank data suggest that creditor remedy restrictions are strongly and significantly associated with lower minimum personal loan sizes for commercial banks. The magnitude of the effect is very large. The fact that Louisiana allows quite high rates (36 percent) on smaller personal loans may have contributed to this result.[5]

When credit laws are restrictive, creditors may be able to evade the intent of such laws in various ways. For instance, in Arkansas, where rate ceilings are highly restrictive, it has been found that prices of durable goods (that are most likely to be sold on credit) tend to be higher than in surrounding states, see Lynch (1968 and 1974.)[6] In other words, retailers obtain part of the return they need to continue offering credit by raising the prices of the goods they sell on credit. While a financial institution has no leeway for directly raising prices of goods sold on credit, it may be able to increase its net returns on credit contracts by buying credit contracts from dealers at a discount. The dealers, in turn, knowing that they can sell their low interest rate paper only at discount, can then raise prices to consumers to compensate for any such loss. Thus, we expect that in states with low rate ceilings, creditors who have a choice of either making direct loans or purchasing consumer paper from dealers will tend to purchase a larger portion of their consumer paper from dealers – as by discounting purchased paper, they may be able to increase the net return on their consumer credit portfolios.

[5] In a conversation at the conference, George Benston observed that credit unions' close association with potential defaulters allows them to use wage assignment and social pressure to collect on delinquent and defaulted loans in many cases. Thus, credit unions may be less sensitive to restrictions on conventional legal remedies than would be the case for more impersonal and remote credit grantors. If so, one would expect the equations for credit unions to have smaller coefficients on the creditor remedy restriction variable than equations for other credit grantors. With only one exception, this is the case in the loan rate equations of Table 2. It also is the case in the minimum size personal loan equation, shown in Table 3.

[6] Lynch studied the price of consumer durable goods in Little Rock versus the price of equivalent baskets of durable goods in major cities in adjoining states. In his first study, in 1968, he found that there was a substantial difference in the prices of durable goods sold in Little Rock and the prices of durable goods sold elsewhere. In his 1974 study, he conducted very extensive work comparing the price of different market baskets of goods in numerous cities and again reached the same conclusion. The price difference was fairly substantial, around 4 percent. Since not all sales are credit sales, this implies that both credit and cash customers may be paying indirectly for the low interest credit that is available in Arkansas. However, cash purchasers do not take advantage of the relatively low interest rates available on credit.

In addition to the loan-to-value ratio information reported by credit unions, major auto finance companies in the various states were asked to report on their loan terms and credit experiences in their intrastate reporting areas that included the local markets we had picked for intensive study. So far, replies have been received from only two of the three major auto finance companies. Average values for the most interesting data reported by those companies are summarized in Table 4.

TABLE 4

Auto Finance Company Loan Terms in Various States

A. Usual Loan-to-Value Ratios on 48-month New Car Loans

	Restrictive Remedies	Nonrestrictive Remedies	Avg.
Restrictive Rates	Wisc. 88.5	Ark. 90.5	89.5
Nonrestrictive Rates	La. 99.5	Ill. 94.0	94.75
Avg.	92.0	92.25	

B. Usual Loan-to-Value Ratios on 36-month Used Car Loans

	Restrictive Remedies	Nonrestrictive Remedies	Avg.
Restrictive Rates	Wisc. 97.5	Ark. 94.5	96.0
Nonrestrictive Rates	La. 97.0	Ill. 101.5	99.25
Avg.	97.25	98.0	

C. Retention Rate on Loans Purchased from Dealers (Avg.)

Wisc. 6.5%	Ark. 10%
La. 6.625%	Ill. 6.625%

D. Dealer Recourse Agreements Required (# of Respondents)

Wisc. One	Ark. Both
La. Both	Ill. One

Analysis of the data presented in Table 4 suggests that the following conclusions can be reached about loan terms applicable to auto credit contracts purchased by auto finance companies in various states. First, on average, loan-to-value ratios are reduced (i.e., downpayment requirements are increased) for *both* new and used cars in states where rate ceilings are low. Second, creditor remedy restrictions have little effect on downpayment requirements. While, as expected, loan/value ratios were lower (on average) in states with restrictions on creditors' remedies, the differences were very small. Third, where rate ceilings are lowest, in Arkansas, finance company retention percentages on purchased contracts tend to be highest. Higher retention rates give the finance companies greater protection against losses and higher effective yields.

Dealer recourse agreements were most common in the Southern states. Arkansas has low rate ceilings and Louisiana has restrictive remedies, so it is understandable that finance companies would attempt to transfer loan risk back to the dealer. However, only one company has similar requirements in Wisconsin, where both remedies and rate ceilings are restrictive. Thus, no systematic pattern is discernible in the dealer recourse information.

Overall, the strongest effect of restrictive laws on auto credit contracts appears to be on downpayments. Restrictive rate ceilings seem to increase downpayment requirements substantially.

Table 5 reports on the proportion of loans that are directly made by creditors who also have an option of purchasing consumer credit paper from sellers of retail consumer goods. While many consumer finance companies specialize in small direct consumer loans, finance companies that also purchased credit from dealers made a much lower (and significantly lower) proportion of direct loans in states (actually Wisconsin, since there are no consumer finance companies in Arkansas) where rate ceilings are restrictive. This result held for all types of consumer loans where the finance companies had an option of either making direct loans or of purchasing paper from consumer durable goods dealers. In addition, for most types of loans where banks had the same option, they also made a substantially lower percentage of direct than indirect loans. These results support our hypothesis that where rate ceilings are restrictive, creditors are likely to favor dealer-originated consumer paper.[7] In that way they may be able to increase the net return that they earn on their consumer credit portfolios.

Where creditors' remedies are restrictive, one would also expect consumer creditors to be more inclined to purchase consumer paper from dealers. This

[7]In related work using the same data as this study, Johnson and Sullivan (1979) obtained mean values for a number of variables that they thought might reflect the influence of creditor remedy and rate ceiling restrictions on creditors in various states. It is pertinent to note here that they found that commercial banks in Arkansas made *85 percent* of their used car loans *indirectly*. They also made 48 percent of their new auto loans indirectly. In Wisconsin, which is also a low rate state, they found that banks made 43 percent of both their new and used car loans indirectly. In contrast, in Louisiana, which is the highest rate state studied, they found that banks made *only 12 percent* of their used car loans and 18 percent of their new car loans indirectly. Also, in Illinois, they found that banks made only 30 percent of their new and used car loans indirectly.

is so because, in the event the consumer defaults on the loan, the creditor may either have recourse against the dealer or may require that the dealer repurchase the contract. "Recourse" or "repurchase" agreements are frequently used when one financial institution sells its consumer paper to another. Such agreements, in essence, allow the creditor to transfer some of the risk associated with a consumer paper purchase back to the credit originator. Since creditors' remedy restrictions are likely to increase credit risk, one would expect creditors to be more likely to purchase paper as one means to reduce their total risk when creditors' remedies are restricted. The data presented in Table 5 suggest that, in fact, consumer finance companies do purchase a higher percentage of paper from dealers (and originate a lower proportion of their own portfolios) when creditors' remedies are restrictive. While this result holds for all types of loans surveyed, it is only statistically significant for automobile credit. Thus, the spreading of risk hypothesis is not strongly supported for finance companies, possibly because the effect is relatively weak (making a difference of only a fraction of a percentage point in terms of net yields on different types of consumer loans). Additional evidence that this phenomenon has, at most, only a weak effect is given by the bank regressions. There the effect of creditors' remedies restrictions

TABLE 5

Effect of Restrictive Laws on Loan Originations

	Percentage of Direct Loan Originations by			
	Commercial Banks		Finance Companies	
Type of Loan	Restrictive Rate Ceilings	Restrictive Remedies	Restrictive Rate Ceilings	Restrictive Remedies
Auto, New	−11.03	8.26	−26.71[ab]	− 6.41[ab]
Used	−22.83[a]	22.24	−73.39[ab]	−23.08[ab]
Total	3.92	15.85	−56.18[ab]	−21.39[ab]
Mobile Home, New	−21.54[ab]	−3.47	N.A.	N.A.
Used	−12.90[b]	−18.71[ab]	N.A.	N.A.
Total	−5.72	0.48	−16.75[ab]	− 4.09[b]
RV, Furn., Other Consumer Goods	−1.01	1.04	−20.32[ab]	− 6.11[b]
Home Improvement Loans	N.A.	N.A.	−22.43[ab]	− 3.18[b]

[a]Significant at the 95% (one-tailed) confidence level.

[b]Less than half of all respondents gave nonzero responses on this issue. However, respondents in at least three states gave nonzero responses.

on the percentage of consumer credit directly originated, rather than purchased, is highly variable, and is only significantly negative for the most risky class of secured consumer loans made, i.e., loans on used mobile homes. Further, it takes on a large positive sign for most other types of consumer loans. Overall, the effect of creditors' remedy restrictions on loan originations is weak, at best, but there is some evidence that such restrictions induce consumer finance companies to buy consumer paper rather than make direct loans somewhat more frequently – particularly for automobile loans.

Lenders can also reduce, or spread, their risks by requiring more frequently that credit insurance be obtained on their loans. Credit insurance, conceivably, could reduce their losses and thereby increase their net yields on their loan portfolios. Thus, one would expect that credit insurance would be used more frequently in states where rate ceilings or creditors' remedies were restrictive. An attempt was made to investigate that phenomenon but no dummy variables in the equations tested took on significant signs. Because sales of credit insurance can be a profit-generating service *per se*, creditors' decisions to offer credit insurance probably are more greatly influenced by considerations as to whether credit insurance rates allowed under existing state laws enable them to make a reasonable profit than by risk reduction considerations. Thus, creditor size information and the dummy variables for restrictive rate ceilings and remedy laws, alone, were unable to explain systematic variations in credit insurance use.

An additional factor that could reflect creditors' attempts to reduce risk is the extent to which creditors reject applicants for consumer credit. One would expect higher rejection rates to exist where rate ceilings were restrictive or creditors' remedies were restrictive. Rejection rates should be most elevated on loans made to the highest risk credit applicants. On the other side of the ledger, however, if individuals knew that they were likely to have a difficult time obtaining credit, they would not be likely to waste their time applying for a loan. Still, if their demand for credit were sufficiently strong at the going rate, one would expect many credit applicants to take the chance of being rejected. Analysis of credit rejection rates on new car loans and personal loans at commercial banks and credit unions did not provide any systematic evidence to support the notion that credit rejection rates rise when credit laws are restrictive. While banks rejected somewhat higher percentages where rate ceilings were restrictive, credit unions did the reverse, and in no case were the rate ceiling dummy variable coefficients significantly different from zero. As far as restrictive creditors' remedies are concerned, credit rejection rates generally were elevated for credit unions operating in restrictive remedy states, and reduced for banks operating in the same states. While most creditor remedy restriction coefficients were statistically significant, the variance in signs shows no systematic pattern in their action.

A possible clue to the lack of systematic pattern in credit rejection rates at banks and credit unions can be gleaned from analysis of data reported by two of the major auto finance companies. Both respondent companies reported substantially (10 to 15 percent) lower credit rejection rates in the southern states in our sample than in the northern states. Both southern states and both north-

ern states, meanwhile, had very little difference (1 to 3 percent) in their credit rejection rates. Consequently, even though the nonrestrictive and restrictive rate ceiling states showed the expected differences, when compared to each other, those differences were so small relative to the North/South differential that they probably would not be detectable on a systematic basis, if all data were pooled.[8]

Some other variables were tested to see if they varied significantly with consumer credit law restrictions. In particular, various portfolio differences were analyzed. None of these investigations proved fruitful. So few credit unions in the sample made mortgage loans that consumer loan/other asset comparisons were not useful for them. Also, banks in Arkansas are subject to 10 percent rate ceilings on all loans. Thus, they have no particular incentive to bias their portfolios to business rather than consumer loans (particularly since extra profits can be earned on dealer reserve accounts and discounts on purchased consumer loan paper). Thus, no systematic differences were found in the percentage of total consumer loans held by different creditors in the various states.

Summary of Findings

In this paper we have discussed, theoretically, how restrictions on creditors' remedies and rate ceilings can influence the supply and demand for consumer credit. We also have analyzed data obtained from creditors in different states to determine if systematic differences exist in their credit behavior when they are subject to different credit laws. Major findings were:

1) Restrictive rate ceilings effectively reduce consumer loan rates. However, restrictive creditors' remedies are associated with elevated consumer loan rates. Further, rate increases resulting from remedy restrictions appeared to be greatest on the riskiest classes of loans.[9]

2) Restrictive rate ceilings are associated with reduced loan/value ratios (increased downpayments) on auto loans. Restrictive creditors' remedies have little, if any, systematic effect on downpayments.

[8] In the companion Dunkelberg paper in this volume, a larger proportion of consumers reported loan rejections in Arkansas (the lowest rate state) than in any other state. That result could be reconciled with these findings if it were found that Arkansas applicants reduced their rate of credit search after one rejection, while rejected applicants in other states were more likely to search elsewhere (possibly at higher rate sources) following rejections.

[9] An interesting interpretation can be made of these results. Economic theory suggests that riskier borrowers will have to pay more to borrow when creditors' remedies are restricted. However, riskier borrowers may not be assessed price (rate) surcharges when they borrow – as such treatment could make lenders vulnerable to charges of discrimination. Instead, riskier customers may have to pay more to borrow because they are more likely to acquire (or be forced to acquire) riskier types of loans – and the *rate differentials* between *those types* of loans and less risky loans *is greater* in restricted remedy states than it is in nonrestrictive remedy states. Thus, they may pay higher rates because their credit portfolios differ from those of less risky borrowers. While I did not mention this interpretation at the conference, I feel it is sufficiently useful that it should be spelled out explicity.

3) Restrictive rate ceilings tend to increase the *minimum* size personal loan that can be obtained, while restrictive creditors' remedies apparently have opposite effects.

4) Restrictive rate ceilings cause creditors to prefer indirectly obtained credit to direct credit (since such credit can be discounted and retailers can raise prices on consumer goods). Restrictive remedies also may cause some creditors to prefer indirect credit – where the retailer absorbs some of the risk.

5) Systematic effects of credit law restrictions on credit rejections, portfolio composition, and credit insurance use were not found in the simple models tested here. Many other factors (such as geographic location, legal maximum insurance premiums, rates available on other credit instruments, and creditors' familiarity with or ability to use other credit instruments) may all affect creditors' behavior as much as or more than the credit laws discussed in this paper.

6) Highly restrictive rate ceilings can entirely eliminate some consumer lenders from the credit markets. In particular, it should be noted that no consumer finance companies, who usually specialize in relatively high risk, small personal loans, operated in Arkansas.[10]

7) Auto finance companies continued to operate in Arkansas, but they imposed higher dealer reserve requirements and more restrictive recourse agreements on dealers there than they did in the other sample states.

Integrated Conclusion

Overall, the findings of this study can be usefully integrated with those of Dunkelberg (in his companion study in this volume) to describe the functioning

[10] Commercial banks make *significantly* larger minimum-size cash loans in states with restrictive loan rate ceilings. Further, credit unions also tend to make larger minimum size cash loans in states with restrictive rate ceilings (albeit, for credit unions, the difference is not statistically significant). As a result, consumers may have difficulty obtaining small cash loans in low rate ceiling states. This is particularly true in Arkansas because no consumer finance companies operate in that state.

However, an interesting institution apparently has moved in to fill the gap between supply and demand for small cash loans in Arkansas. A comparison of pawnbrokers listings in phone books for each market area is very revealing. In Arkansas, seven pawnbrokers were listed in the yellow pages, while in all the other market areas combined, only three pawnbrokers advertised in the yellow pages. Further, one of those three was located in Chicago (the closest major metropolitan area) rather than in the (Illinois) market area selected for study.

Pawnbrokers have the ability to underappraise systematically the collateral value of goods offered for pawn. If they do so, they may be able to realize a higher than 10 percent return on their operations because they will net significant profits on sales of unredeemed collateral. This is similar in concept, but opposite in direction, to the fact that dealers may be able to increase their total returns from offering credit by raising the prices of goods that they sell on credit.

of consumer credit markets under different regulatory conditions. This study looks at changes in loan prices and terms offered by lenders, while the Dunkelberg paper analyzes credit use by consumers. Taken together, the two papers suggest that changes in *both* the *quantity* and in the *price and terms* of credit resulting from different legal restrictions can be identified.

A. Effects of Creditor Remedy Restrictions

In particular, this study shows that interest rates will tend to rise when creditors' remedies are restricted, while the Dunkelberg study shows that remedy restrictions *per se* do not have a significant negative effect on credit use by consumers in general. (See his Table 1). Evidently, consumer demand increases sufficiently when remedies are restricted that total credit use does not fall substantially in spite of the fact that rates increase. However, when rate ceilings are restrictive, rates cannot rise if creditors' remedies are reduced. Thus, if creditor remedy restrictions raise the supply curve, credit availability will fall. As a result, it is not surprising that Dunkelberg found (again in his Table 1) that credit use was significantly lower in Wisconsin where both rate ceilings and remedies were highly restrictive than in Illinois, where neither rates nor remedies were highly restricted. Consequently, it appears that creditor remedy restrictions raise the supply curve for credit, particularly on the riskiest types of debt (if the rate differentials found in this paper are taken as a guide).

Since riskier customers are more likely to acquire riskier types of debt, they may be most affected by any upward shifts in the supply curve caused by remedy reductions. Thus, it is not surprising that when Dunkelberg analyzed the riskiest members (lower 40 percent) of the credit risk distribution, he found that average debt use in Wisconsin was $700 per family unit below the predicted level (based on Illinois behavior – see his Table 4) while for all families it was only $440 lower – see his Table 2. High standard deviations rendered both of these last statistics insignificant, however. In Louisiana, where remedy restrictions could be offset by rate increases, reductions in credit use were not nearly as substantial as those recorded in Wisconsin. (See Dunkelberg's Tables 2 and 4.) Further, in his overall regression equation (Table 1), total credit use per family in Louisiana appeared to be significantly higher than in Illinois – possibly because the very high Louisiana rate ceilings allow more high risk customers to be accommodated.

B. Effects of Rate Ceiling Restrictions

Rate ceiling effects uncovered by these studies were very interesting. Rate ceilings clearly were effective in reducing loan rates. They also were associated with tightened credit terms, larger minimum size loans, and *most importantly*, a change in the structure of the credit markets toward the offering of more indirect credit (where prices of goods sold on credit and credit contract purchase prices and terms can be adjusted to provide the lender with a rate of return sufficient to compensate for the fact that his interest earnings are reduced).

The creditor data showed shifts of some banks and finance companies toward more indirect, rather than direct, loans in restrictive rate states. Also, the consumer survey data showed extensive consumer use of dealer credit in

Arkansas, the lowest rate state. These findings supported the hypothesis that indirect credit provides a relatively more important source of credit in states with low consumer credit rate ceilings. Other information has shown that prices on credit-related goods are higher in Arkansas than in surrounding states with less restrictive rate ceilings (see Lynch 1968 and 1974) and that pawnbrokers are much more prevalent in Arkansas than in other survey states (see footnote 10). Thus, it appears that creditors have adapted to the strict Arkansas usury rate ceiling in such a way that they can still earn an adequate return on their consumer lending activities. As a result, credit is more readily available in Arkansas than one would expect if he merely looked at the 10 percent rate ceiling. Dunkelberg found that the amount of credit extended per surveyed household was not significantly different from the amount available in Illinois, everything else being equal. However, he also found that a higher percentage of consumers reported credit rejections in Arkansas than in other states. Nonetheless, the creditor data indicated that, overall, no systematic difference in credit rejections existed between states. Possibly rejectees in Arkansas feel that they have little chance of obtaining credit elsewhere if they are rejected once – since all rates are uniform – and thus they apply for credit less frequently than rejected applicants in other states. Also, possibly, high variance in credit rejection data provided by different creditors accounted for the fact that the small increases in rejection rates reported by creditors operating in Arkansas were not found to be statistically significant.

C. Importance of Findings

The results of these studies should provide useful insights for those legislatures or regulatory bodies that are contemplating changes in creditor remedy restrictions or rate ceilings on consumer credit. They document a number of effects that are likely to occur when either rate ceilings or creditors' remedies are made more restrictive.

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