

**The Effects of Usury Ceilings:
the Economic Evidence**

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Executive Summary

Usury regulations recently have been the subject of intense debate which has culminated in a spate of legislative reforms. Advocates of usury laws argue that they protect borrowers from lenders who would otherwise charge exorbitant interest rates and engage in abusive lending practices; critics of ceilings argue that they force lenders to restrict credit availability and create other market distortions. This paper examines the economics of usury ceilings in order to identify the substance of the arguments on both sides of this debate. The paper links each argument to economic theory and reviews empirical evidence on the various predicted effects of usury ceilings.

Theoretically, a usury ceiling is a form of price control; it establishes a legal maximum interest rate (or price) which can be charged for a loan or an extension of credit. When the statutory ceiling rate is below the rate of charge that would be established in an unregulated market, the ceiling bars lenders from legally charging any higher price. When this situation occurs, the usury ceiling is said to be binding or effective. Thus, usury ceilings can protect some borrowers from paying what they may view as exceedingly high rates of interest in order to obtain credit.

However, at the same time that binding usury ceilings may benefit borrowers by maintaining lower interest charges, they are also likely to restrict the supply of credit available to borrowers. When binding ceilings prevent lenders from adjusting interest charges to cover their costs of providing loans, they will

instead adjust the amount of credit they are willing to extend to insure that costs are met at the maximum rate of interest legally allowed.

Empirical studies of U.S. credit markets have found that:

*Credit is less readily available when usury ceilings become binding. Studies of bank loans, mortgage loans, and consumer credit have all supported this theoretical prediction. Binding usury ceilings present consumers with a trade-off between lower interest rates and reduced credit availability.

*Usury ceilings encourage lenders to adopt other credit rationing practices and strategies unfavorable to borrowers. These include more stringent terms and shorter maturities on mortgage loans, larger minimum sizes for personal loans, and higher fees for checking accounts and mortgage appraisal.

*Certain borrowers, notably low income and high risk borrowers, are more likely to feel the brunt of the reduction in credit availability when usury ceilings are binding.

*Usury laws have additional adverse economic impacts because of the fact that in the United States not all forms of credit are subject to the same statutory treatment. The lack of uniformity distorts the flow of credit among credit-sensitive economic activities and among states. Differences in usury ceilings have been found to be responsible for disproportionate cutbacks in mortgage credit and housing activity in some states, and for the loss of jobs and tax revenues to other states.

The generally negative economic impact of usury ceilings might be an acceptable alternative to borrowers suffering "exorbitant" interest rates without the protection of the ceilings. In theory, however, unregulated interest rates will not be unreasonable (in the sense that they are not out of line with lenders' costs) when credit markets are sufficiently competitive. It is difficult to determine from empirical studies of consumer credit markets how rigorous competition actually is. However, some competitive pressure does seem to exist. Moreover, there is some evidence that

usury ceilings themselves are partly to blame for weakening the competitive environment in credit markets.

Consumers' market awareness can also be a significant counterbalance to lenders' power to arbitrarily set interest charges. Truth-in-lending legislation has been linked with a steady increase in levels of consumer awareness of interest charges over the last decade, suggesting that such legislation may be an effective alternative to achieve the goals of usury ceilings.

The weight of the economic evidence on usury ceilings generally supports the current legislative trend toward relaxation of interest rate controls. The question remains whether deregulation of usury ceilings should be left to individual states or whether it is best accomplished by federal preemption. From an economic point of view, federal preemption would allow markets to work more efficiently by treating all states uniformly. However, this benefit needs to be weighed against the political implications of the federal government entering an area which has traditionally been under the jurisdiction of the states.

I. Introduction

Regulations against usury have been debated from the time of Moses. Today, as a result of a prolonged period of high inflation, record interest rates, and sluggish economic growth, usury ceilings are once again a controversial subject. Issuers of credit and operators of credit-sensitive businesses have called for the deregulation of interest charges. They argue that interest rate ceilings work to consumers' disadvantage by restricting credit flows and distorting financial markets. On the other hand, consumer advocates claim that elimination or easing of usury laws will lead to abusive lending practices and will force individuals to pay exorbitant interest rates to obtain loans. Less strident supporters of usury ceilings believe they are necessary to protect borrowers, particularly small borrowers, and to enable them to obtain funds at reasonable rates. Who is correct? Are the critics of usury ceilings simply speaking out of their own self-interest? Do usury ceilings operate in the best interests of consumers?

Recent legislative action has favored the critics of usury ceilings by relaxing interest rate controls. The 1980 Depository Institutions Deregulation and Monetary Control Act overrode state interest ceilings on some categories of loans, and Congress is now considering new legislation to further preempt state limits on interest charges. At the same time, many state legislatures have revised their usury statutes. Some states have raised their limits, others have eliminated restrictions, and still others are considering revisions. In large part, these recent changes in usury regulation have been in response to the current economic

situation. But is deregulation of usury ceilings desirable? And if it is desirable, should it be left to the states or is it best accomplished by federal preemption?

Economists have accumulated a considerable body of research which bears on these questions. This paper surveys the economic evidence on the subject of usury ceilings with the purpose of providing a basis for evaluating the arguments raised in the public debate. The first three sections of the paper deal with the economic effects of usury ceilings, and the fourth section examines the likely economic consequences of removing statutory limits on interest charges. A final section considers policy options. The empirical research reviewed in this paper concerns primarily, but not exclusively, the consumer credit market, since this is where usury ceilings have drawn the most attention. In many states, in fact, loans to corporations are not subject to the interest rate restrictions imposed by usury laws.

II. Usury Ceilings in a Competitive Market

Two issues have figured prominently in the current debate over usury laws. They are the effect of interest rate ceilings on the price of credit and their effect on the amount of credit available. Participants in the debate emphasize one effect or the other. Both sides of the argument have a basis in theory. This section develops the theoretical model of the impact of usury ceilings on the price and availability of credit and cites empirical research to substantiate the theoretical claims.

In theory, the credit market can be viewed much like any other economic market.¹ There are buyers (borrowers) and sellers

(lenders) of credit; the price of credit is the interest rate. The credit market is easily represented in a conventional supply and demand diagram like Figure 1. The demand curve represents the amount of credit borrowers desire at various prices (interest rates). The supply curve reflects lenders' cost of funds and thus the amount of credit they are willing to grant at various interest rates, assuming the market is competitive. According to theory, borrowers and lenders will eventually establish an equilibrium in the market at a price which just balances the supply and demand for credit. We can call this price the normal market rate of interest. Such a rate is shown as r_m in Figure 1.

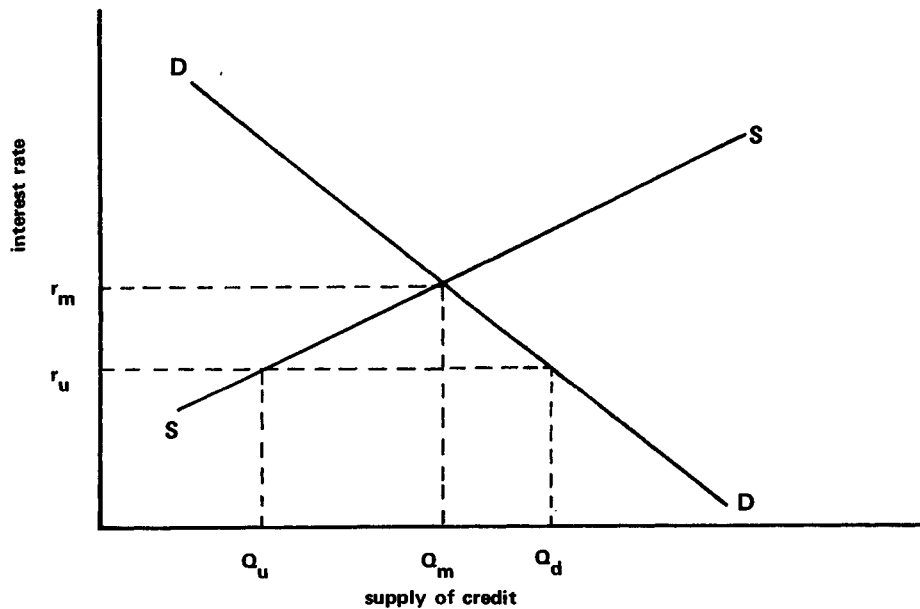


Figure 1

Usury laws stipulate a maximum rate of interest which lenders may legally charge.² When a usury law is introduced it may alter the way in which both price and quantity are determined in the credit market. Exactly what happens depends on the level of the usury ceiling with respect to the market rate. When the legal ceiling is above the market rate of interest (r_m), the law has no effect at all. The market forces of supply and demand are unconstrained by the usury ceiling, and the equilibrium price and quantity of credit are unchanged. However, when the legal ceiling is below r_m , the regulation does affect the market outcome. Such a usury ceiling, like the rate r_u in Figure 1, is said to be binding or effective.³ A binding ceiling obviously alters the price of credit--the ceiling rate becomes the rate of interest charged. Therefore, if the market rate r_m had been considered too high, a usury ceiling of r_u , for example, would have succeeded in lowering the rate of interest for borrowers.

Establishing a lower-than-market interest rate by means of a usury ceiling will also bring about a decrease in the quantity of credit. Given lenders' costs (the supply curve), the most credit which they can provide when the interest rate is held down to r_u is Q_u . Therefore, the binding usury ceiling will lead to a reduction from Q_m to Q_u in the amount of credit available to borrowers. Furthermore, in contrast to the situation in the unregulated market, this amount of credit will not satisfy all those who want to borrow at the ceiling price. The usury ceiling creates a situation of excess demand with borrowers seeking Q_d in credit. Borrowers cannot bid up the price in order to obtain more credit

because of the rate ceiling, and lenders will not provide any more credit at the legal maximum interest rate. Thus, at the legal ceiling price there is a greater demand for credit than supply.

The important implication from this economic model is that usury laws can succeed in holding interest rates below their market levels only at the expense of reducing the supply of credit to borrowers.⁴ Thus, there exists a trade-off between interest rates favorable to borrowers and credit supplies favorable to borrowers. Empirical research on the effect of usury ceilings in the United States indicates that such a trade-off does exist.

The Effect of Usury Ceilings on Credit Availability: The Evidence

A study by Robert Keleher of the Federal Reserve Bank of Atlanta [9] looked at how loan extensions by banks in Tennessee varied as market interest rates fluctuated above the state's 10-percent usury ceiling. In regressions controlling for other factors which reduce loan extensions as market interest rates rise, Keleher found that the further market interest rates rose above the state usury ceiling (i.e., the more binding the ceiling), the smaller was the weekly change in total loans outstanding.⁵ This relationship was true of all large reporting banks in the state as well as for most subcategories of bank loans.⁶ Keleher's study of bank commercial credit provides support for the hypothesis that binding usury ceilings restrict the supply of credit.

A number of studies of mortgage markets also lend support to this argument. The Federal Reserve Bank of Minneapolis [3, 20] analyzed Minnesota's experience with an 8-percent usury ceiling on

conventional home mortgages. As is the case in many other states, Minnesota exempts FHA and VA mortgages from the state rate ceiling. The Minneapolis study found that when market rates climbed to between 9 and 10 percent in 1973-74, home financing in Minnesota shifted substantially from conventional mortgages--which were subject to the ceiling--to exempt FHA or VA loans. During the period when ceiling rates were binding on conventional mortgages, the share of total mortgage financing in FHA/VA loans rose in Minnesota from 22 to 25 percent. In contrast, the FHA/VA share steadily declined in states that had no binding rate ceilings. About 40 percent of all new mortgage loans issued in the Twin Cities at this time were FHA-insured, almost double the usual share. This substitution indicates that conventional mortgage credit became decidedly less available when interest rates on these loans were constrained by the ceiling.⁷

In a more statistically controlled analysis, James Ostas [16] examined mortgage market data for 15 large SMSAs over the period 1965 to 1970. He indirectly evaluated the impact of usury ceilings on mortgage lending by relating differences in usury ceiling rates among SMSAs to differences in the number of housing permits issued. Using regression analysis Ostas found a strong negative relation between housing permits and the spread between estimated market mortgage rates and usury ceilings. At a minimum, his estimates showed an 11 percent reduction in permit authorizations for every one percentage point that the usury ceiling was below the market rate.⁸ Ostas reasoned that the reduction in housing permits came about because binding usury ceilings initially reduced

mortgage loan volume. Earlier, Philip Robins [19] had obtained similar results from a study of residential construction activity in 77 SMSAs in 1970. Robins found that, controlling for other intercity differences, housing starts were 28 percent lower in SMSAs where usury ceilings were binding. He also estimated that a usury limit one percentage point below the market rate was associated with a 16 percent lower level of single-family housing construction. These findings again suggest that binding ceilings lead to a reduction in mortgage credit, which in turn results in fewer housing starts.

In yet another study, James McNulty [12] analyzed the impact of usury ceilings on mortgage lending directly and separately from their impact on housing construction. He followed a time-series approach, utilizing data on mortgage markets in Georgia for the period 1965 to 1977. McNulty's regressions showed that the Georgia usury ceiling (which ranged from 8 to 10 percent during the period studied) had a restrictive effect on single-family lending activity by savings and loans in Georgia, despite the fact that market interest rates generally were below the state ceiling for most of the period studied. (Market rates were substantially above the ceiling for only four quarters.) This result substantiated McNulty's claim that usury ceilings can have an impact on lending activity even before average market rates hit the ceiling, since there is a fairly wide distribution of actual mortgage market rates. McNulty estimated that as the market rate approached the ceiling, mortgage lending was lowered 7.5 to 12.5 percent for each one percentage point difference between ceiling and market rates.⁹

The effect of usury ceilings on the supply of consumer credit has been examined in several other studies. In a technical study for the National Commission on Consumer Finance, Robert Shay [21] examined data on personal consumer loans collected in a survey of 48 states in 1971. Shay's study showed a small, but statistically significant, relationship between rate ceilings and loan extensions, controlling for market concentration and several other factors. Specifically, Shay found that, across states, each one percentage point decrease in the usury ceiling on small loans was associated with 18 fewer loans per 10,000 families. (The average number of loans per 10,000 families was about 1,300.) He also found that the dollar volume of loan extensions fell as ceilings were lowered, but this relationship was not statistically significant.¹⁰ These results indicate that the supply of personal loans is smaller where rate ceilings are lower. Shay also found that lower rate ceilings were associated with fewer new auto loans, but he did not find any significant effect on the supply of credit to purchase other consumer goods (mobile homes, boats, aircraft, and recreational vehicles).

A more recent study of the effect of usury ceilings on consumer credit produced some results which initially appear to contradict the theory. Richard Peterson of the Credit Research Center at Purdue University [17] compared urban consumer credit markets in Arkansas, which had a 10-percent comprehensive usury ceiling, with similar credit markets in Illinois, Wisconsin, and Louisiana, which had less restrictive ceilings. He found that, contrary to expectation, residents of Arkansas held as much (or

more) credit overall as consumers in the other states studied. However, he also found that consumers in Arkansas held significantly less cash credit, and more point-of-sale credit (retail credit and credit cards) than their counterparts in the states with less restrictive ceilings.¹¹ Point-of-sale credit may be less affected by usury ceilings than cash lending because merchants and dealers who issue point-of-sale credit can raise prices on goods they sell to compensate for the costs of their credit operations.¹²

Another study under the auspices of the Consumer Credit Research Center also documented the effect of usury ceilings on the availability of consumer credit. Robert Johnson and A. Charlene Sullivan [8] examined the effect of a 1977 regulatory change in Massachusetts which lowered the maximum rate of charge on small loans (under \$2,000 and 24 months). One finding of the study was that, as anticipated, the gross amount of regulated loans (under \$3,000) outstanding in the state fell by 12.5 percent between 1975 and 1979.

III. Noninterest Credit Conditions: Usury Ceilings and Credit Rationing

Taken together, the results of the studies described above largely substantiate the argument that binding usury ceilings lead to a reduction in the amount of credit provided by lenders. But credit transactions involve a number of terms other than the interest rate. Usury ceilings may determine the "price" that lenders can charge, but they do not constrain the other conditions that lenders may choose to offer. Faced with a binding usury ceiling lenders may be expected to

alter these noninterest conditions in order to achieve a higher effective return on the smaller amount of credit they will offer. Changes in the noninterest terms of credit transactions could be unfavorable to borrowers generally and could concentrate the restrictive impact of usury ceilings on certain categories of borrowers.

As pointed out earlier, under binding usury ceilings, borrowers demand more credit than lenders are willing to provide. In this situation, lenders may allocate credit among borrowers according to their own conditions. Lenders could, for example, differentiate eligible borrowers by raising down payment requirements, by offering shorter loan maturities (which raises amortization payments), and by raising minimum loan size requirements. Any of these actions would tend to reduce expensive default and collection costs while preserving lenders' overall profitability from a smaller quantity of credit extensions.¹³ Lenders might also base credit extensions on certain desirable borrower characteristics. It is well known that characteristics like income, amount of assets, and length of relationship to the lender are associated with differing levels of risk that an individual borrower might default. Given a single interest rate ceiling, lenders are unable to alter interest charges in accordance with the riskiness of each loan. Therefore, they may instead reduce risk and preserve profitability by screening potential borrowers according to these risk-related characteristics.

Lenders have other, more direct options for preserving their profitability. When interest charges are constrained by usury ceilings, lenders may still utilize noninterest fees and charges as sources of revenue. The specific form these may take depends on the type of creditor.¹⁴ For example, mortgage lenders may increase closing fees and

prepayment premiums; credit-card issuers may institute annual fees or transactions charges; commercial banks may initiate charges for services previously provided gratis. Retailers who extend sales credit may even raise prices on all of their merchandise to cover the costs of their credit operations.

By employing these devices lenders may be able to skirt the impact of usury ceilings on their own revenues. More important, however, are the consequences which changes in noninterest loan conditions have on borrowers. Lenders' use of these devices tends to concentrate the impact of usury ceiling on certain borrowers. Making loan terms more stringent reallocates credit away from those who are unable to afford larger down payments or the larger installment amounts necessitated by shorter maturities and higher minimum loan balances. Determining credit-worthiness according to individual characteristics rations credit away from high-risk consumers who might be willing to pay higher-than-ceiling rates. Finally, adding noninterest charges eliminates from the market those for whom these extra costs are too great.

As a result of these lending practices, usury ceilings may fail to provide consumers with the protection and benefits which the ceilings were intended to provide. For example, usury laws may work against the goal of ensuring that credit is available to small, inexperienced borrowers. When lenders ration credit by some means other than price, small borrowers, low-income borrowers, and high-risk borrowers are likely to find it more difficult to obtain credit. Prime borrowers, on the other hand, may even obtain more credit than they would have at normal market interest rates. Furthermore, when lenders institute noninterest charges to compensate for interest rate ceilings, they

effectively raise the cost of credit for the successful borrower. This means that while a ceiling may reduce the explicit price of credit (the interest rate), it may not result in lower overall costs of borrowing for those able to obtain loans. The noninterest charges also make it more complicated for customers to comprehend the total cost of borrowing and make it more difficult to make well-informed credit decisions.

These lending practices and their undesirable consequences may exist in the absence of interest rate ceilings. However, empirical studies have frequently found that the extent to which these devices are used is directly associated with the restrictiveness of usury laws. In other words, these studies indicate that usury ceilings create a climate in which lenders are likely to more vigorously pursue practices unfavorable to some or all borrowers.

Several studies have shown that loan terms definitely become less favorable to borrowers when usury ceilings become more restrictive. For example, the Minneapolis Federal Reserve Bank [3, 20] found that during one period when Minnesota's ceiling on mortgage loans was binding, the average maturity of conventional mortgages in the Minneapolis-St. Paul SMSA fell significantly. While maturities in the Twin Cities had been about three to four years shorter than in SMSAs without usury ceilings, the difference increased to seven years when the ceiling became restrictive. The same study found that required down payments increased much more sharply in the Twin Cities during this period than in the SMSAs not subject to binding usury ceilings. Similarly, a study by Kohn et al. for the New York State Banking Department [10] found that down payment requirements increased and maximum maturities decreased during

the 1974 credit crunch when market interest rates rose above New York's 8.5 percent ceiling on mortgage loans.

Dwight Phaup and John Hinton's analysis [18] provided quantitative estimates of the impact of usury ceilings on noninterest loans in the mortgage market. Phaup and Hinton used the difference between a proxy market rate and the state usury ceiling as an independent variable in regressions explaining changes in three types of noninterest charges and terms--mortgage fees and charges, loan-to-value ratios, and maturities. The regressions were run on quarterly data on new mortgage lending for single-family dwellings in Schenectady, New York for 1961 through 1976. Since mortgage fees and charges were explicitly covered by New York's usury law, it was expected that mortgage lenders would not respond to binding usury ceilings by increasing these fees; this was indeed found to be the case. Other mortgage terms, on the other hand, were found to become more stringent as usury ceilings became more binding. Phaup and Hinton found that for each 1 percentage point the market rate rose above the ceiling, there was a 4 percent reduction in mortgage maturities and an 8 percent decline in loan-to-value ratios.¹⁵

The Peterson study [17] described earlier examined noninterest credit conditions on various types of consumer credit. The study found that auto loans in Arkansas had shorter maturities than in states with less restrictive usury laws. In addition, the average minimum size for personal loans at commercial banks and credit unions was 2.5 times larger in Arkansas than in other states covered by the study. Peterson found that Arkansas lenders charged higher fees for mortgage credit investigations and appraisal than did lenders in other states with less restrictive interest rate ceilings. Arkansas residents also paid higher

charges for checking accounts and overdrafts. (Moreover, retailers faced bigger discounts and less desirable terms when selling their retail credit contracts to other creditors.)

A number of empirical studies have demonstrated a direct relationship between the availability of credit to certain categories of borrowers and the restrictiveness of usury ceilings. Peterson, for example, found that cash credit was significantly less available to low-income and high-risk borrowers in Arkansas than in the other states studied. The lowest income group and the three highest risk groups of Arkansas consumers held a larger proportion of their credit from point-of-sale sources. These categories of borrowers were more likely to be denied cash credit in Arkansas than in other states in the study with less restrictive interest rate ceilings.

In their study of the Schenectady, New York mortgage market, Phaup and Hinton [18] were primarily concerned with the uneven distributional effects of usury laws. Therefore, in addition to presenting estimates of the effect of binding usury ceilings on mortgage terms and charges and evidence of the overall restrictive effect of these rationing devices on the number of new mortgages, they examined the hypothesis that lower income areas felt the impact of decreased mortgage lending activity more than other areas. In order to test this hypothesis they stratified census tracts by four different measures of economic status--mean income, percent of families above the poverty line, percent of owner-occupied housing, and mean value of housing--and ran regressions to explain the number of new loans for each census-tract stratum. They found mortgage activity was more sensitive to the usury ceiling and to noninterest credit terms in census tracts in the lowest

stratum of each economic measure than in the higher strata, and these differences were almost always statistically significant. Thus, Phaup and Hinton provided a direct statistical confirmation of the uneven burden of usury ceilings on one group of potential borrowers.

Using the survey data collected by the National Commission on Consumer Finance, Douglas Greer [7] analyzed personal loan rejection rates by finance companies in 48 states in 1971. Greer found that differences in state usury ceilings alone accounted for over 50 percent of the variation in rejection rates among the states. Additional regressions showed an inverse relationship between rate ceilings and rejection rates which was strongest among low-ceiling states. Greer concluded from this study that the higher the rates they are permitted to charge, the more willing lenders are to accept risky borrowers. Consequently, binding ceilings make it more difficult for higher risk borrowers to obtain credit.

Finally, using the same data from the National Commission on Consumer Finance Robert Shay [21] found further indication that high-risk borrowers are the ones most affected by usury ceilings. Shay found that lower rate ceilings were associated with reduced credit availability in both the new auto and personal loan markets. Along with banks, auto dealers are the primary lending institutions in the auto credit market and finance companies in the personal loan market. Auto dealers (as retail installment lenders) and finance companies generally are subject to higher usury ceilings than banks because they deal with higher risk clientele. It was these higher rate ceilings, and not the ceilings on bank loans, which Shay found to influence credit extensions for auto and personal loans. He concluded that the reduced credit

availability associated with usury ceilings falls on those whose credit standing is weakest.

Usury ceilings emerge from the analysis in this and the previous section as a regulatory policy with very mixed benefits for borrowers. The primary benefit is a lower-than-market interest rate. But, depending on lenders' actions, borrowers may end up facing higher noninterest credit charges as a result of usury ceilings. Moreover the lower-interest benefit of usury ceilings has attached to it a direct cost for the borrowing public in a reduced supply of credit. Furthermore the cost of restricted credit availability likely falls disproportionately on high-risk, low-income borrowers, those whom usury ceilings are often designed to protect.

IV. The Broader Impacts of Usury Ceilings

The impacts of usury ceilings identified so far have been ones affecting individual borrowers. Usury ceilings also affect consumers and the economy in a more general way. This macroeconomic impact is bound up in the particular way interest rate regulation has been implemented in the United States.

Diversity of Usury Ceilings

Responsibility for regulating interest rates on credit has, since colonial times, rested with the states. Most states have general usury laws which establish two ceilings: the contract rate, which is the maximum rate which may be agreed to in contracts, and the legal rate, which is the maximum rate which can be charged when a rate is not specified in a contract. Many consumer credit transactions, however, are exempted from these general usury statutes and are subject instead to special usury statutes.¹⁶ These special statutes apply to specific

types of lenders and specific types of credit, often with different limits depending on the size of the loan.¹⁷ As a result, there is great diversity in the coverage of interest rate ceilings within individual states.¹⁸ Furthermore, there is also great diversity in ceiling rates and coverage across states.

These legal arrangements have important implications for the economic impact of usury ceilings. Lack of uniformity of limits and coverage means that some forms of credit are constrained by ceilings while others are not. Under these circumstances, lenders will want to shift their portfolios out of loan categories which are subject to binding ceilings. Lenders may look for alternative opportunities within a state--as appears to have happened, for example, in Minnesota with the shift from conventional to FHA/VA mortgage financing which was exempt from the usury ceiling. However, lenders may also look for opportunities out-of-state. State-imposed usury laws establish interest rate ceilings on credit extended to borrowers within a particular state. But, since credit markets are not confined to state boundaries, lenders have incentives to allocate loans across state lines to borrowers in states which offer the least constraining usury laws. Thus, interstate differences in limits and coverage will distort the geographic distribution of credit and alter the allocation of funds to credit-sensitive economic activities.

Many of the studies cited previously support the notion that a diversity of state usury ceilings affects the geographic distribution of credit. Studies which examined the effect of usury ceilings on credit availability by comparing states with different usury ceilings show both that credit availability is reduced at times when interest rate ceilings

are binding and that the reduction occurs in states where the ceilings are binding.

A study by the staff of the New York State Banking Department [10] also indicates how credit flows away from states with binding usury ceilings. The study found that during the period 1966 to 1974, when mortgage market rates were almost continuously above New York's usury ceiling, the proportion of mortgage loans on out-of-state properties rose from 6.5 percent to over 18 percent among savings and loans, and from 18 to 20 percent among banks. Furthermore, over 48 percent of the mortgages held by mutual savings banks were on out-of-state properties which were not covered by the New York usury law. This situation prompted one observer to conclude that New York's mutual savings banks had effectively redlined the entire state because of its restrictive usury ceiling.¹⁹

In the long run, state differentials in usury ceilings may even affect the location decisions of suppliers of credit and of credit-sensitive economic activities. For example, in marked contrast to other states, there are no consumer finance companies located in Arkansas, which has a comprehensive 10-percent usury ceiling. And that state has a much larger number of pawn brokers than Illinois, Wisconsin, or Louisiana. In addition, a survey of merchants in the adjacent cities of Texarkana, Texas and Texarkana, Arkansas [1] revealed that the Texas side of the border had a much larger number of automobile, furniture, and appliance dealers than the Arkansas side. Furthermore, 84 percent of the merchants interviewed indicated that Arkansas' usury ceiling was an important factor in their preferring a location on the Texas side of the border.

Recent decisions involving the credit card operations of several major commercial banks further illustrate the locational incentives of differences in state usury regulations.²⁰ In mid-1981 Citibank of New York began moving its nationwide credit card operations to South Dakota. This move was undertaken, in part, because of the there-to-fore failure of the New York legislature to raise its restrictive usury ceiling and because of the absence of a limit on consumer loan rates in South Dakota. When the move is complete Citibank is expected to employ about 2,000 people at its Sioux Falls, South Dakota facility.²¹ In the fall of 1981 First National Bank of Maryland and Philadelphia National Bank announced decisions to establish facilities in Delaware to handle consumer lending operations. These decisions likewise were attributed to restrictive usury ceilings in the home states and to the recent removal of limits in Delaware.²² Finally, a November 1981 announcement by First National Bank of Chicago of its intention to acquire the credit card portfolio of New York's Bankers Trust was also influenced by state usury ceilings. As a result of the September 1981 elimination of consumer loan rate ceilings in Illinois, First Chicago can move processing of the new credit card accounts to its Elgin, Illinois office without their being subject to interest rate limits.²³

The Macroeconomic Impacts of Usury Ceilings

When usury ceilings affect a state's attractiveness as a site for doing business and for making loans, they may also affect activity in the credit-sensitive sectors of the state's economy. For example, when lenders are less willing to extend mortgage credit in a particular state, the entire home-building industry in the state will suffer. Ostas and Robins, in studies cited earlier, found that binding usury

ceilings reduce the number of housing starts or housing permits issued, presumably because they reduce mortgage availability. The New York State Banking Department found that the number of building permits for one-family houses issued in New York during the late 1960s and early 1970s lagged increasingly further behind the numbers issued in 14 states with less restrictive regulation of mortgage lending rates. The study concluded that New York's restrictive usury ceiling was a contributing factor in the depressed condition of the housing market in the state.

Similarly, restrictive usury laws on automobile loans and other forms of consumer credit could affect the level of consumer purchases and retail trade. Some evidence comes from the survey of merchants in Texarkana, Arkansas, and Texarkana, Texas [1]. This survey revealed that, on average, approximately 38 percent of credit sales among merchants on the Texas side of the border were to customers from Arkansas. The study's authors attributed this substantial amount of out-of-state shopping to the comprehensive 10-percent usury ceiling in Arkansas, and they concluded that it "represents a loss of business and jobs by Arkansas-based retailers and tax revenues to state and local governments."

To the extent that a state's economy depends on credit-financed purchases, state employment, income, and expenditures may all be affected by usury ceilings which restrict credit. As the effects of reduced credit availability work themselves through the various sectors, a binding usury ceiling is likely to have a general, depressive effect on the entire state economy. A study by Richard Gustely and Harry L. Johnson, described by Harold Nathan [14], used an econometric model of Tennessee to examine the impact of that state's comprehensive 10-percent

usury ceiling. The authors reportedly found that Tennessee's economy grew faster than the national economy except at the times when market interest rates exceeded the state usury ceiling. They also estimated that between 1974 and 1976 the state lost an average of \$150 million per year in output, 7,000 per year in employment, and \$80 million per year in retail sales due to the usury regulation. Thus, rather than stimulating a state's economy by keeping interest rates down and encouraging investment, binding usury ceilings may dampen the economy by driving investment and expenditures to states which offer less restrictive usury ceilings and thus more attractive earning or consuming opportunities.

V. Usury Ceilings and Competition

As the foregoing discussion has shown, usury ceilings have many more consequences than simply holding a lid on interest rates. The additional consequences may even be sufficiently adverse to outweigh the benefit to borrowers of below-market interest rates. However, evaluation of usury laws is not complete without also considering the consequences of not having usury ceilings.

A commonly heard argument is that without usury laws, borrowers would be forced to pay exorbitant interest rates, or at least rates that were unreasonable in relation to the cost of supplying credit. The basis for this claim seems to be a general feeling that lenders have excessive market power and thus in the absence of regulation they would be able to charge virtually whatever price they desire.²⁴ According to economic theory, it is competition which ensures that lenders are not able to exercise such power over pricing and to earn more than a normal return. The price of a good established under competitive market

conditions will reflect suppliers' costs of providing the given amount of the good. To be sure, removing a usury ceiling which had been binding will result in higher interest rates. However, if credit markets are competitive, then the market rate of interest will be consistent with lenders' cost of providing credit. It is when competition is absent that consumers are apt to face unreasonable interest rates. Thus, the consequences of not having usury ceilings depend importantly on the competitive status of credit markets.

There are several reasons to suppose that U.S. credit markets are fairly competitive. A wide variety of types of institutions make up the supply side of the credit market. Banks, finance companies, credit unions, thrift institutions, and retailers all provide credit to the public, and frequently these institutions offer credit in closely substitutable forms. For example, personal loans are available through banks, bank credit cards, finance companies, credit unions, and some thrifts. Automobile loans are offered by dealers, many thrifts, banks, credit unions, and finance companies. Today the consumer credit field is feeling the influx of new types of institutions and new services being offered by traditional financial institutions. Moreover, in many places consumers can choose among several lenders of any particular institutional type.

However, competition in credit markets may be hampered by the fact that lending institutions have become specialized according to the types of credit they offer and/or the types of borrowers they serve. In the area of personal consumer credit, for example, banks and other depository institutions primarily offer cash credit to lower risk

borrowers while finance companies specialize in servicing higher risk customers.

Thus, the question of whether credit markets are sufficiently competitive to protect consumers from unreasonable interest charges is one which must be answered empirically. Unfortunately, this is difficult to do. Evidence on the extent of competition is scanty, confusing, and does not provide a definitive answer to the question.²⁵

One way in which to examine competitive pressures is to study how interest rates vary among states with different usury ceilings. If market rates are predominantly national, then actual interest rates consistently at the maximum permitted by state usury law, regardless of how high or low each ceiling is, may indicate that lenders set prices without competitive pressure from the market. However, observed rates below ceilings in some high-ceiling states could indicate that lenders are subject to price competition.²⁶ Two studies have reported on comparisons of observed rates on various types of loans and the corresponding state rate ceilings.²⁷

Paul Smith [22] studied a sample of 497 commercial banks from 27 states with different banking structures. As part of his analysis Smith grouped banks by whether they were located in states with high, moderate, or low usury ceilings. He then compared average bank interest rates across these three groups of states. What he found was that even in low ceiling states not all banks charged rates at the ceiling; some charged below the legal limit (and some even charged above the ceiling). Furthermore, in the group of high-ceiling states, average rates on secured loans and on all but the smallest unsecured loans were equal to or below the rates in states with moderate rate ceilings. Even for

small unsecured loans (less than \$300), the average rate charged in high-ceiling states was only .15 percent above the rate in the moderate ceiling states. These results are consistent with a notion that price competition is practiced in the bank personal loan market.

The Report of the National Commission on Consumer Finance [15] also compared observed interest rates and state rate ceilings. The Commission conducted a 50-state survey in the second quarter of 1971 concerning three types of consumer lending--\$3,000 new car loans by commercial banks, \$1,000 unsecured loans by banks, and personal installment loans by finance companies. For bank auto loans, the average observed rates of charge in the 50 states clustered around 10 percent; state rate ceilings, on the other hand, ranged from 8 percent to as high as 24.85 percent. Even in the six states which had no usury ceilings, average observed auto loan rates were still in the same general range--9.2 percent to 10.7 percent. For unsecured bank loans, the Commission found average observed rates to be higher than the secured auto loans, as might be expected from their greater risk. Rates on these loans also showed more interstate variation, ranging between 12 percent and 16 percent. In no state, however, was the average observed rate above 16 percent, although 6 states had no legal ceiling and the limits were as high as 28 percent among states with ceilings. States with limits below 12 percent tended to have actual average rates very close to the legal limits, suggesting that these ceilings were effectively impinging on the market rate. (Interestingly, five states had average rates on unsecured loans which were above the legal limit, and the limits in these states were all about 12 percent or less.) Thus, in both the auto loan market and the personal loan market at

banks, there appears to be some pressure holding interest charges below a certain limit regardless of the usury ceiling.

The Commission's findings on finance company loans contrasted with its findings on bank loan rates. In the finance company loan market, the Commission noted a much closer correspondence between observed rates and the state usury ceilings, however high or low the ceilings were. The Commission reported that in 42 states at least 80 percent of the cash loans made by consumer finance companies fell within 10 percent or less of the state usury ceiling. The Report emphasized that even here not all loans were made at the maximum allowable rates. Nevertheless, finance companies appear more ready than banks to charge the highest rate allowed.

Another way to gauge competitive pressures is to examine the influence that different types of lending institutions have on each other's behavior. Smith [22] looked at the effect which the presence of finance companies has on commercial bank lending. He reported that the number of finance companies located within 100 square miles of a commercial bank had a negative effect on the bank's average interest charge. Also, he found that banks had larger average loan sizes, fewer loans, and a smaller percentage of unsecured loans the greater the number of finance companies. Smith concluded that all of these relationships point to "considerable interaction between finance companies and banks despite the difference in the markets they serve" (p. 524). This conclusion must be looked at with some circumspection, however, because of discrepancies between Smith's text and his accompanying Table 3 and because of obvious printing errors in the table. Further clouding the issue of the extent of interinstitutional

competition is a technical study for the National Commission on Consumer Finance by Douglas Greer [5]. Greer analyzed correlations between finance company rates and rates charged by banks and also ran regressions to explain loan rates and credit supplies in each segment of the market. According to Greer, his data do not support a firm conclusion of vigorous competition between finance companies and commercial banks.

It is impossible from the evidence cited here to draw an overall, definitive conclusion about the extent of competition in credit markets. The studies described here suggest that competitive behavior may vary considerably among different segments of the credit market. Rates on finance company personal loans, for example, appear to be set less competitively than rates on auto loans or personal loans extended by banks. Moreover, it is unclear how much competitive pressure lenders in one institutional segment of the market exert on lenders of other institutional types. Another factor which makes an overall assessment of competition difficult stems from the great differences in local market conditions. Lending institutions located in urban areas may face much greater competitive pressures than lenders in smaller cities or towns.

What can be stated definitively, however, is that from the point of view of protecting borrowers from unreasonable interest charges, competition is desirable, and the more the better. To the extent that competitive pressures arise from the presence and ready entry of many firms into the market, consumers are best served by policies which foster these conditions in credit markets.²⁸

There is some evidence that usury ceilings, rather than fostering these conditions, tend to restrict competition in some parts of the credit market. The National Commission on Consumer Credit (NCCF) found, for example, a strong inverse relationship between finance company concentration ratios in the personal loan market and the average level of legal rate ceilings on personal loans. (Higher concentration ratios are usually associated with lower levels of competition.) The relationship was even stronger among only low-ceiling states. This finding that lending firms tend to be more highly concentrated the lower are state rate ceilings can be attributed to several factors. First, low usury ceilings drive inefficient firms out of the market, thereby increasing concentration, [6, p. 1377]. In addition, low usury ceilings create barriers to entry making it difficult for new firms to compete during the start-up phase [15, p. 137].

Rate ceilings have been implicated for restricting competition in various other ways. The NCCF argued that different rate ceilings for different lenders tend to artificially segment the market and restrict competition among different types of consumer lenders [15, p. 147]. Indeed, ceilings are often set at different levels for certain institutions, encouraging them to specialize in servicing borrowers of certain risk categories and effectively segmenting the market [5, p. 60]. Another difficulty with usury ceilings, according to Shay, is that they may provide an incentive for tacit collusion among some lenders. Rate ceilings may offer convenient focal points for setting rates higher than they might otherwise be set [21, p. 407]. (In short, the rate ceiling could become a floor.) Finally, the Treasury Department's Interagency Task Force on Thrift Institutions [23] recently argued that

very low usury ceilings discourage thrift institutions from acquiring consumer loans in their portfolios and from actively competing with finance companies by offering consumer loans.

If these arguments are true, then credit markets may actually become more competitive with the removal or easing of usury ceilings. Lenders may face more interinstitutional competition and consumer lending may be seen as a more feasible and attractive line of business, enhancing the number of firms in the market.

Competitive pressures are also fostered by the existence of a group of knowledgeable borrowers. When consumers are not aware of the market, when they do not know or cannot compare rates being offered by various lenders, each lender has more scope to charge whatever rate he chooses. Thus, the extent to which the market places natural constraints on interest rates (in lieu of the external constraints of usury ceilings) depends, in part, on the level of borrowers' awareness. A 1969 survey of consumer credit awareness sponsored by the Federal Reserve Board found borrowers were relatively poorly informed about annual percentage rates. Only 15 percent of the credit users in that survey were classified as aware of the annual percentage rates on closed-end credit. Awareness levels were higher on retail revolving credit (35 percent) and bank credit cards (27 percent). How do these results relate to the price competitiveness of credit markets? As the National Commission on Consumer Finance pointed out "Not all consumers need be aware of the APR [annual percentage rate] or shop for credit to bring about effective price competition. A significant marginal group of consumers who are aware and do shop is sufficient to 'police' the market" [15, p. 175]. It is difficult to say exactly what the size of that group needs to be,

but the Commission suggested that one third to one half of the borrowers is certainly sufficient. By this criterion, consumers did not exert very effective pressure on lenders in 1969.²⁸

However, the 1969 survey was conducted before passage of federal consumer protection legislation in the 1970s and before the Truth-in-Lending Act (Title 1 of the 1968 Consumer Credit Protection Act) could have had any impact. Two more surveys using the same criteria to classify consumers by awareness levels were undertaken during the 1970s--one in 1970, 15 months after passage of the Truth-in-Lending Act, and another in 1977. A Federal Reserve Board comparison [4] of the results of these later surveys with the earlier 1969 survey shows a steady increase in consumer awareness. Awareness levels on closed-end credit climbed to 38 percent in 1970 and to 55 percent in 1977. By 1977 consumer awareness of annual percentage rates on retail revolving credit and bank credit cards stood at 65 percent and 71 percent respectively. Data from these three surveys do not permit rigorous analysis of the reasons for the substantial increase in borrowers' knowledge of the market. Nevertheless it seems reasonable to attribute at least some of the improvement to the consumer protection legislation enacted in the past decade. The suggested impact of such legislation on improving the environment for price competition in the credit market, in turn, indicates that there exist effective alternatives to usury ceilings to ensure consumers of reasonable interest charges. Legislation, such as Truth-in-Lending and state disclosure laws, which does not interfere directly with individual market decisions can still provide protection to consumers from anticompetitive credit pricing practices.

V. Policy Options

The weight of the economic evidence on usury ceilings generally supports the current legislative trend toward relaxation or elimination of interest rate controls. Usury ceilings create a variety of allocative and distributive problems which adversely affect borrowers as well as lenders. Furthermore, it is not even clear that ceilings effectively constrain the price of credit, if one considers the total overall cost of borrowing and not just the explicit interest or finance charge.

There are several ways to design policies to deregulate interest rates in order to ease the adverse economic impacts of usury ceilings. One is to raise, but not eliminate ceilings, when they begin to have restrictive effects on credit availability and economic activity. This approach preserves statutory interest rate limits and whatever protection they do afford consumers from outrageously high interest charges. But its effectiveness depends on the ability of state legislatures to act with appropriate deliberation and timeliness to raise usury limits in response to increases in market rates.

A second approach, floating ceilings, avoids this problem and preserves the protection afforded by statutory limits. Under this approach, usury ceiling limits automatically adjust at frequent intervals to changes in other interest rates. Such floating ceilings are usually set at a stipulated number of percentage points above other specified market interest rates--such as Treasury bill yields or the Federal Reserve discount rate--over which neither borrowers nor lenders have control. The difficulty with floating ceilings is the choice of an appropriate tie-in formula which will keep the ceiling from impinging on

the market rate for a particular type of credit. In a 1979 study of floating ceilings in the mortgage market, the Federal Reserve Bank of St. Louis [11] concluded that ceiling rates set 2.5 percentage points above yields on ten-year U.S. Treasury bonds or 5 percentage points above the discount rate were high enough not to distort the flow of credit to housing. Other floating rate schemes, however, continued to bind mortgage rates and impede housing activity.

Finally, usury ceilings could be eliminated. Illinois, New York, and many other states have recently lifted their ceilings on most or all forms of consumer and commercial credit. In addition, the 1980 Monetary Control Act temporarily preempted state limits on mortgage loans and on large business and agricultural loans. The same act also overrode state interest ceilings on loans by national and state banks, S&Ls, and credit unions when the state ceiling is below the local Federal Reserve discount rate plus 1 percent. Proposals to extend federal preemption to include consumer credit were considered during the 1981 Congressional session. (A Senate version was introduced by Senator Lugar and incorporated in S. 1720 by Senator Garn; House versions were sponsored by Representatives John La Falce and Bill Alexander.) It is expected that some action will be taken on similar proposals during the upcoming session as part of legislation to restructure the entire financial regulatory system.

The move by the federal government to deregulate state usury ceilings raises an important and difficult issue. From an economic point of view there is a clear benefit to be gained from such federal action. It would impose uniformity on credit markets, eliminating legislatively created differentials in interest rates which artificially

distort credit flows among states. The same benefits of uniform treatment could be achieved, of course, whether the federal government overrode state ceilings by specifying its own fixed or floating interest rate limits or by eliminating ceilings altogether. However, this benefit needs to be weighed against the political implications of the federal government stepping into an area which has traditionally been under the jurisdiction of the states. Economic analysis alone does not permit one to say whether deregulation of usury ceilings should be left to individual states or whether it is best accomplished by federal preemption.

Footnotes

¹For a simple theoretical treatment of usury ceilings see Chapter 9 in James Van Horne Financial Market Rates and Flows. For a more advanced discussion see Rudolph C. Blitz and Millard F. Long "The Economics of Usury Regulation." Journal of Political Economy, December 1965.

²We use the term usury laws generally to include comprehensive usury laws as well as any other statutes which establish maximum interest rates or finance charges on specific credit transactions.

³What has happened in many states over the last decade is that for various economic reasons market interest rates have risen above what were initially nonbinding statutory ceilings. While the ceilings always existed, only recently have they begun to impinge on the market.

⁴A binding ceiling would not lead to reductions in credit supply if the supply curve were perfectly inelastic. That is, if supply were completely insensitive to price (interest rates), then imposition of a ceiling would lower the interest rates charged consumers without reducing the quantity of credit lenders made available. (See Van Horne, [24] p. 220). It is quite unrealistic, however, to suppose that credit supply does not respond at all to variations in interest rates.

⁵Among the independent variables included in these regressions were bank reserves and the rate on federal funds. Bank reserves were added to control for the fact that loan growth would be expected to fall during periods of high interest rates if banks are losing deposits. The federal funds rate was intended to control for the fact that higher interest rates present banks with higher costs of purchased funds or with greater returns to nonloan assets. For both reasons, loan volume would be expected to fall as market interest rates rose.

⁶The exceptions were loans to nondurable and durable manufacturing, and loans to service industries. Keleher speculates that these loans were not adversely affected by the ceiling because of previous commitments, strong customer relationships, and nonprice rationing.

⁷Furthermore, it indicates that the ceiling did not succeed in protecting all borrowers from mortgage financing rates above 8 percent, since the interest rate on FHA-insured loans ranged between 8.5 and 10.5 percent during this period.

⁸Ostas estimated the maximum impact for a one percentage point spread to be 19 percent. Other studies utilized an alternative, observable interest rate (such as the secondary market yield on FHA mortgages) to measure the spread between ceilings and market rates; Ostas developed an estimate of the equilibrium market mortgage rate

from a model of the opportunity costs of mortgage lenders in cities with unconstrained rates and used this to measure the spread.

⁹Despite finding this impact on the number of loans extended, however, McNulty did not find that Georgia's ceiling had a significant impact on housing construction. McNulty believed this was because Georgia's ceiling was only moderately, and briefly, restrictive during the period under study.

¹⁰If the average size of each loan were to rise while the number of loans falls, the usury ceiling might not affect the total dollar volume of loans extended.

¹¹Peterson distinguished cash credit from non-cash or point-of-sale credit. The former is in the form of direct loans while the latter is credit obtained from dealers at the point-of-sale or on credit cards.

¹²This situation is similar to that found in the Federal Reserve study of the mortgage market in Minnesota. In both cases the binding usury ceiling altered the mix of loans in favor of those on which lenders could better protect their revenues.

¹³Increasing minimum loan sizes also increases the rate of return. By extending credit on fewer but larger transactions, lenders reduce their administrative costs per dollar of credit extended. This is because costs generally do not increase proportionately with increases in the amount of individual loans.

¹⁴Many states also regulate these fees and charges in addition to regulating interest rates and finance charges.

¹⁵Phaup and Hinton also found a much larger impact of usury ceilings on new mortgage lending than Ostas, Robins, or McNulty. They found a one percentage point increase in the market-ceiling spread was associated with a 31 to 38 percent decline in new mortgages. They attributed the difference in magnitude to the severity of New York's ceiling as well as to differences in the data and model.

¹⁶These special statutes originated in the 1910s and 1920s because legal commercial lenders could not afford to make the more costly consumer loans at rates under the contract rate ceiling (which still in many states is in the 8 to 10 percent range). Much of the consumer demand for credit in the late 19th and early 20th centuries went to illegal loan sharks. To remedy this situation, states authorized the organization of consumer credit organizations under special higher ceilings above the usury limits but below loan shark rates. See Mors [13] pp. 9-22.

¹⁷Sales or retail credit, in particular, has been treated differently from other types of credit. According to the courts, credit sales are not to be regarded as the extension of a loan and therefore they are not subject to general usury ceilings. Under

the time-price doctrine, as it came to be called, the courts recognized retail credit as the sale of goods under different conditions than cash sales. Since the conditions of sale were different, retailers could charge a different price for cash and credit customers. This price differential was the time-price. It was not the same as interest charged for the advance of money. This legal interpretation led states to adopt separate legislation regulating the finance charges imposed by retail creditors. See Mors [13] p. 20.

¹⁸ A 1981 listing by the Financial Institutions Bureau of the Michigan State Department of Commerce contains 25 different loan categories subject to interest rate ceilings imposed by state law. The current effective maximum rates ranged from 5 percent on personal loans by individuals for nonbusiness purposes to 36 percent on loans by pawnbrokers. A 1980 survey of Iowa usury laws summarized that state's current interest rate ceilings under 9 categories with maximum permitted rates ranging from 5 percent (the legal rate) to 36 percent (the maximum rate on the first \$500 of loan by a chattel loan licensee).

¹⁹ Harold C. Nathan "Economic Analysis of Usury Laws." Journal of Bank Research 10 (Winter 1980) p. 206.

²⁰ The ability of banks to take advantage of interstate differences in ceilings on credit card lending derives from a 1978 Supreme Court ruling. In *Marquette National Bank vs First of Omaha Service Corporation*, the court determined that national banks may charge out-of-state credit customers the rate permitted by the law of the bank's home state. See Federal Reserve Bulletin, February 1981, p. 181 fn. The same option does not apply to department stores, gasoline companies, or other issuers of retail or sellers' credit cards.

²¹ Wall Street Journal, 12/15/81.

²² American Banker, 9/30/81 and 10/30/81.

²³ Wall Street Journal, 12/5/81.

²⁴ Contemporary attitudes toward lenders may be a remnant of earlier times when the taking of interest (usury) was entirely proscribed. Charging interest was not generally permitted until the 16th century, and it was not until the late 19th century or early 20th century that it became socially acceptable for individuals to purchase consumption goods on credit.

²⁵ Actually, economic models of competitive and imperfectly competitive markets lead to some very specific conclusions about how loan pricing and supply should vary with usury ceilings under different market structure. Tests of hypotheses about competitiveness thus include examining variations in both interest rates charged and credit availability.

We have already seen that loan availability should decline with binding usury ceilings in a competitive credit market. In an imperfectly competitive market on the other hand, how a usury ceiling affects credit supply depends on just where the ceiling lies. Over some range of interest rates, lowering the ceiling may actually result in increasing the amount of credit supplied. As the rate ceiling is lowered still further, however, eventually it will impinge on lenders' costs and will finally result in a smaller supply of credit than in the absence of any interest rate limit. See National Commission Consumer Finance Report [15], Chapter 16.

The notion that a price ceiling may actually increase supply in an imperfectly competitive market is sometimes used to justify the use of price regulation to control lenders' monopoly power. Of course, the effectiveness of usury ceilings for this purpose depends crucially on choosing the appropriate legal interest rate limit. Furthermore, this policy does nothing to affect the source of the market power.

²⁶Such a situation could also indicate, however, that all the usury ceilings were above the optimal price for an imperfect competitor. See Greer [7], p. 79.

²⁷In addition, an investigation by the Federal Reserve Bank of St. Louis revealed that mortgage rates in the Chicago, Minneapolis, and Pittsburgh SMSAs did not rise to state ceilings when these usury limits were allowed to float. See Lovati and Gilbert [11].

²⁸The literature on the structure of banking markets has established that there is a highly significant, although quantitatively small, effect of firm entry and concentration on competitive pricing behavior. See Stephen Rhodes, "Structure-Performance Studies in Banking: A Summary and Evaluation, Staff Economic Studies 92, Board of Governors of the Federal Reserve System, 1977; Harvey Rosenblum, "A Cost-Benefit Analysis of the Bank Holding Company Act of 1956," Proceedings of a Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago, 1978; and George Bentson, "The Optimal Banking Structure: Theory and Evidence," Journal of Bank Research, 3 (Winter 1973).

²⁹In analyzing the results of the 1970 survey referred to below, the Commission found sufficient awareness levels existed in the 'general market'--the market comprised mainly of higher income, more highly educated, white, homeowners borrowers who live in nonpoverty areas and use mostly cash credit. The high-risk market on the other hand had disturbingly high levels of unawareness.

References

1. Blades, Holland C., Jr. and Gene C. Lynch. Credit Policies and Store Locations in Arkansas Border Cities: Merchant Reactions to a 10 Percent Finance Charge Ceiling. Monograph 2, Krannert Graduate School of Management, Purdue University, 1976.
2. Blitz, Rudolph C. and Millard F. Long. "The Economics of Usury Regulation" Journal of Political Economy 73 (December 1965): 608-619.
3. Dahl, David S., Stanley L. Graham, and Arthur J. Rolnick. "Minnesota's Usury Law: A Reevaluation." Ninth District Quarterly 4 (Spring 1977): 1-6.
4. Durbin, Thomas A. and Gregory E. Ellichauer, 1977 Consumer Credit Survey. Board of Governors of the Federal Reserve System, 1978.
5. Greer, Douglas F., Jr. "An Econometric Analysis of the Personal Loan Credit Market." An Econometric Analysis of Consumer Credit Markets in the United States, Technical studies Volume IV. (Washington, D.C.: The National Commission on Consumer Finance, 1974).
6. Greer, Douglas F., "Rate Ceilings, Market Structure, And The Supply of Finance Company Personal Loans." Journal of Finance 29 (December 1974): 1363-82.
7. Greer, Douglas. "Rate Ceilings and Loan Turndowns". Journal of Finance 30 (December 1975): 1376-1383.
8. Johnson, Robert W. and A. Charlene Sullivan. "Restrictive Effects of Rate Ceilings on Consumer Choice: The Massachusetts Experience." Working Paper #35. Credit Research Center, Krannert Graduate School of Management, Purdue University, 1980.
9. Keleher, Robert E. State Usury Laws: A Survey and Application to the Tennessee Experience. Federal Reserve Bank of Atlanta, Working Paper Series, January 1978.
10. Kohn, Ernest, Carmen J. Carlo, and Bernard Kaye. The Impact of New York's Usury Ceiling on Local Mortgage Lending Activity New York State Banking Department, January 1976.
11. Lovati, Jean M. and R. Alton Gilbert. "Do Floating Ceilings Solve the Usury Rate Problem?" Federal Reserve Bank of St. Louis Review 61 (April 1979): 10-17.

12. McNulty, James E. "A Reexamination of the Problem of State Usury Ceilings: The Impact in the Mortgage Market." Quarterly Review of Economics and Business 20 (Spring 1980): 16-29.
13. Mors, Wallace P. Consumer Credit Finance Charges (New York: National Bureau of Economic Research, 1965).
14. Nathan, Harold C. "Economic Analysis of Usury Laws" Journal of Bank Research 10 (Winter 1980): 200-211.
15. National Commission on Consumer Finance, Consumer Credit in the United States (Washington, D.C.: USGPO, 1972).
16. Ostas, James R. "Effects of Usury Ceilings in the Mortgage Market". Journal of Finance 31(June 1976): 821-834.
17. Peterson, Richard L. "Effect of a Restrictive Usury Law on The Consumer Credit Market". Mimeo. 1981.
18. Phaup, Dwight and John Hinton. "The Distributional Effects of Usury Laws: Some Empirical Evidence" Atlantic Economic Journal 9 (September 1981): 91-98.
19. Robins, Philip K. "The Effects of State Usury Ceilings on Single Family Homebuilding." Journal of Finance 29 (March 1974): 227-236.
20. Rolnick, Arthur J., Stanley L. Graham, and David S. Dahl. "Minnesota's Usury Law: An Evaluation." Ninth District Quarterly 11 (April 1975): 16-25.
21. Shay, Robert P. "The Impact of State Legal Rate Ceilings Upon the Availability and Price of Credit." An Econometric Analysis of Consumer Credit Markets in the United States. Technical Studies Volume IV. (Washington, D.C.: National Commission on Consumer Finance, 1974).
22. Smith, Paul F. "Pricing Policies on Consumer Loans at Commercial Banks" Journal of Finance 25 (May 1970): 517-25.
23. U.S. Senate Committee on Banking, Housing, and Urban Affairs. Report of the Interagency Task Force on Thrift Institutions. (Washington, D.C.: U.S. Government Printing Office, July 1980).
24. Van Horne, James C. Financial Market Rates and Flows, (Englewood Cliffs, New Jersey: Prentice-Hall, 1978).