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# The Law and Economics of Consumer Finance

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# The Law and Economics of Consumer Finance

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This survey of the law and economics of consumer finance discusses economic models of consumer lending and evaluates the major consumer finance laws in light of them. We focus on usury laws; restrictions on creditor remedies, such as the ban on expansive security interests; bankruptcy law; limitations on third-party defenses, such as the holder-in-due-course doctrine; information disclosure rules, including the Truth in Lending Act; and antidiscrimination law. We also discuss the empirical literature.

## 1. Introduction

The law regulates consumer credit transactions much more heavily than noncredit transactions like the cash sale of a computer. Nearly anyone can sell computers to the public, but the creditor—bank, finance company, pawnshop, credit card issuer—is heavily regulated by federal and state agencies: licensed, inspected, and—less so now than in the recent past—circumscribed by geographic, market, and product restrictions.<sup>1</sup> The com-

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1. A creditor may be an ordinary seller of goods, but to the extent that the seller offers the goods on credit, it is treated like any specialized creditor, and sellers of goods often subcontract to such specialists.

puter seller may offer any cash contract acceptable to the market, subject to some light restrictions imposed by federal and state law. The creditor may not choose a price that exceeds the relevant usury ceiling, or remedial terms that are considered too burdensome by the law. The computer seller is not required by law to explain what RAM is. The creditor is required to explain what a finance charge is and to present information about credit terms in a stylized way that is supposed to ease comparison of the terms offered by different companies.

In this survey of the law and economics of consumer finance, we describe and evaluate the main patterns of consumer finance regulation in the United States. We examine the state and federal laws that regulate consumer loans, including cash loans and loans that finance the purchase of real estate and consumer goods. We focus on (1) price controls (usury laws), (2), restrictions on creditor remedies, (3), bankruptcy law, (4) limitations on the use of third-party defenses, (5), information disclosure rules, and (6) antidiscrimination law. We do not discuss general doctrines of contract law that are applied to cash sales and credit transactions alike, including the unconscionability doctrine; statutes and regulations that apply to all consumer transactions, not just consumer credit transactions, such as laws that regulate advertising or warranties; and laws that regulate the market as a whole, including licensing requirements for creditors, geographic and activity restrictions, and antitrust laws.<sup>2</sup>

The literature on the regulation of consumer credit is not as lively as it once was. Academic interest peaked in the 1970s and early 1980s, and with the exception of work on consumer bankruptcy tailed off in the 1990s. Yet consumer credit remains a significant topic of public policy and a source of interesting and difficult questions. For poorly understood reasons, the individual bankruptcy filing rate has risen rapidly since the 1970s, stimulating reform bills in Congress and generating significant attention in the media. The credit card industry has attracted a great deal of criticism for its aggressive marketing efforts, confusing credit terms, and high interest rates. Major retailers such as Sears are criticized for their efforts to persuade customers to reaffirm debts in bankruptcy. And controversy has swirled around the sale of credit insurance to low-income

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2. We also do not discuss public choice approaches to the law of consumer finance; see, e.g., Boyes (1982), Buckley and Brinig (1996), Ekelund, Hebert, and Tollison (1989), Letsou (1995), and Posner (1997).

borrowers, a practice that has generated considerable profits for creditors. These and similar issues deserve more attention from scholars than they have received.

## 2. Models of Consumer Lending

### A. Lending in a Perfectly Competitive Market

An individual, Debtor, seeks to borrow money in order to smooth consumption over time. A firm, Creditor, offers to lend money at a certain rate of interest. In a perfectly competitive market the interest rate will reflect the time value of money, inflation, and the risk of default. Debtor accepts the offer if the benefit, that is, the transformation of future wealth into current consumption, exceeds the interest rate.

If Debtor defaults on the loan, he is legally required to pay Creditor. If in fact Debtor does pay damages as a result of a lawsuit, or forfeits collateral of sufficient value, there is no “default” in an economic sense, as Creditor is fully compensated. The problem for Creditor is that Debtor may be judgment proof as a result of both legal and nonlegal factors. The legal factors, to be discussed more extensively below, include restrictions on the ability of Creditor to seize assets or future income in order to satisfy a judgment. Nonlegal factors include the difficulty of tracing Debtor if he flees the jurisdiction or goes into hiding, and collecting from Debtor if he simply does not ever earn enough money to pay off the debt.

Default might occur in a bad state of the world in which Debtor loses his job, his health, or a valuable asset. Risk-averse debtors want insurance against such bad states, and in addition to the usual forms of insurance, such as automobile and health, Debtor might purchase credit insurance, which would repay his debt to Creditor if he underwent certain hardships, such as unemployment, illness, disability, or destruction of the collateral granted to Creditor. Debtor might also obtain insurance from Creditor itself in the form of a commitment from Creditor to forgive missed payments if certain events occur.<sup>3</sup> Nonrecourse loans also reflect

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3. It is likely that some lenders informally commit to forgive loans or at least missed payments through their reputations. For example, Caplovitz (1967) describes a practice of many credit sellers of abstaining from legal action after missed payments after using social networks to verify that their low-income consumers are unable to

this interest in insurance. Debtor allows Creditor to seize certain collateral upon default, but Creditor gives up the right to seek repayment from Debtor's other assets.

Consumer loans take many different forms. The basic elements are the advance of cash (or goods) and the obligation to repay principal and interest in installments or in the form of a single payment later in time. Variations include open-end credit card transactions in which the debt can be deferred upon the payment of a small amount and monthly accounts at grocers and other local business. Consumer loans are often secured: there are home equity loans, payday loans secured by the next paycheck, pawnshop loans secured by pledged goods, loans secured by stock, and so forth. Secured loans may also be disguised as other transactions, such as conditional sales or leases.

A debate has raged on and off about why secured credit exists.<sup>4</sup> Creditors should be indifferent in choosing between issuing a risky unsecured loan with a high interest rate and a relatively safe secured loan with a lower interest rate. Debtors should be indifferent in choosing between an additional claim on their assets and a higher interest rate. Therefore, because issuing secured rather than unsecured credit involves additional administrative costs, secured credit should not exist. Two simple non-efficiency explanations for the existence of secured credit are that security interests are used for transferring risk to tort and other nonadjusting unsecured creditors and that, in the consumer finance context, security interests may be used to circumvent property exemption laws (White, 1984). Efficiency explanations for secured credit are beyond the scope of this article, although we note below where they are relevant to the law of consumer finance.

## B. Monopoly Power

Credit markets vary in their degree of concentration. Credit card and mortgage lending are national markets involving a large number of participants who are unlikely to have much market power (DeMuth, 1986;

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repay. A commitment to forgive the loan upon the occurrence of certain events is identical to credit insurance underwritten by Creditor.

4. For early articles presenting most of the basic arguments, see Jackson and Kronman (1979), and Schwartz (1981), Scott (1977; 1979), Smith and Warner (1979). For more recent treatment of the topic, see Bebhuck and Fried (1996), Hudson (1995), or see Scott, et al. (1994).

Elliehausen and Wolken, 1990; Pierce, 1991; Sullivan, 1984), but there may be local monopolies in certain areas of the country, perhaps poor neighborhoods, perhaps the result of regulations that raise the cost of entering the credit market. The existence of such concentrated credit markets, or the belief that such markets exist, has inspired much legal regulation.

In an environment with full or symmetric information, a creditor with monopoly power will charge an interest rate that is higher than that available in a perfectly competitive market but will supply nearly the same nonprice terms as a creditor in a perfectly competitive market (Schwartz, 1977). Harsh nonprice terms are unattractive because consumers will pay more for efficient terms, and the creditor can use its market power to extract the surplus. The nonprice terms in the monopolistic market will not be identical to the nonprice terms in a competitive market—because the monopolist lends less in equilibrium, the optimal terms of the contract may differ—but there is no reason to believe that the contract terms in the monopolized market would be harsher than the contract terms in the competitive market. And there is no reason to believe that forcing monopolists to supply some of the terms that would prevail in a competitive market would produce a gain. Because the monopoly power remains, further distortions would occur in the unregulated terms (Schwartz, 1977).

Monopoly power can have other effects as well, but these require asymmetric information and thus will be discussed below.

### C. Asymmetric Information: Debtor Ignorance

Even if there are numerous lenders in a market, each lender may have some degree of market power because of the inability of consumers to costlessly compare prices and terms. Depending on the source of the information failure, this may result in either an abnormally high price or abnormally harsh terms. Some creditors will lend only to those consumers who are unable to compare the (price or nonprice) terms of the loan offered with the terms available elsewhere in the market.

The problem requires that a large enough number of consumers find it difficult to shop around. The competitive outcome would occur if a significant subset of the consumers became informed and if creditors were unable to discriminate between these debtors and uninformed debtors by, for example, offering loans with different terms and interest rates

(Schwartz and Wilde, 1979, 1983). That is, if enough consumers compare loans before borrowing, no lender can make a profit by lending only to those who did not compare. In tension with this optimistic conclusion is the insufficient incentive on the part of debtors to shop around when doing so confers a positive externality on the uninformed.

The creditor would seem to have every incentive to distinguish itself from its competitors if it is able to offer credit on more attractive terms. However, it cannot overcome consumer ignorance (possibly resulting from misleading claims made by rivals) when that ignorance is severe enough, and the nonmonopolist creditor has insufficient incentive to educate consumers because of that creditor's inability to internalize all of the gain from that information. This problem is lessened somewhat if the creditor has market power. However, a creditor with market power may have an incentive to provide too little information in order to aid in price discrimination (Beales, Craswell, and Salop, 1981a). Furthermore, creditors will have insufficient incentive to explain the economics of the credit market and the meaning of contract terms, because they cannot prevent people who have benefited from their explanations from seeking loans elsewhere (Beales, Craswell, and Salop, 1981b).

It is possible for third parties, such as trade associations and independent groups like Consumers Union, to provide comparisons or standards for comparison. However, each of these solutions has its own problems. An independent group such as Consumers Union might supply too little information because it would have difficulty preventing consumers from sharing the information with others who do not pay Consumers Union for it. Trade associations may have an incentive to create standards or report information that favors those within the association over other competitors, or, conversely, to avoid creating standards for fear of drawing the attention of antitrust regulators (Beales, Craswell, and Salop, 1981b; Schwartz and Wilde, 1977).

#### D. Asymmetric Information: Creditor Ignorance

A different information asymmetry occurs when Debtor, rather than Creditor, has private information. Debtor could have private information about his willingness to pay for credit, his propensity to default, and—after the loan is advanced—the care with which he deals with financial risk.

Let us start with the case in which Debtor has private information about his willingness to pay for credit. If Creditor has a monopoly, it has an incentive to discover Debtor's valuation so that it can price discriminate. It is possible that Creditor can separate higher- and lower-valuation debtors by offering contracts with inefficient terms. For example, Creditor might offer a loan with a high interest rate and a loan with a collateral requirement but a lower interest rate if this would help it distinguish between those who are particularly sensitive to the interest rate and those who are not. The efficiency implications of this practice are obscure. So long as the monopoly remains intact, a law that prohibits the inefficient term will both eliminate the cost associated with the term and reduce value by interfering with price discrimination. Creditor will offer an average interest rate that drives low-valuation debtors out of the market (Craswell, 1995).

Another form of information asymmetry occurs when Debtor knows the probability of default and Creditor does not. Assume that, because of personal characteristics unobservable to creditors, some debtors have a high probability of default ("bad" debtors) and others have a low probability of default ("good" debtors). Creditors that can distinguish debtors by type obtain a competitive advantage, so a debtor's credit record is valuable information, but further investigation into the debtor's personal history is not likely to be cost justified, especially for loans of small value. For this reason, creditors might try to flush out the types by offering different sets of credit terms that appeal to the different types. Harsh remedial terms are more costly for bad debtors than for good debtors, because the bad debtors are more likely to default and thus to become subject to the terms. If creditors believe that any debtor who fails to grant a security interest (or who fails to agree to some other harsh remedial term such as a *cognovit* clause) is a bad debtor, creditors may offer two contracts: a secured loan with a low interest rate and an unsecured loan with a high interest rate.<sup>5</sup> The good debtors effectively "signal" their type by choosing the secured loan with the low interest rate, whereas the bad debtors choose the unsecured loan. The creditors' beliefs are validated in this separating

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5. Creditor might also be able to determine the type of the debtor through the size of the loan requested (Freixas and Laffont, 1990).

equilibrium. This would be true regardless of whether the market is competitive or monopolistic (Aghion and Hermalin, 1990; Rea, 1984).<sup>6</sup>

A rule banning security interests and other harsh remedial terms would be efficient if the total costs of the signaling exceed the total gains. If there is no credit rationing and no effect on the debtor's efforts to avoid default (we discuss both these assumptions below), the reduced interest rate charged to the good debtors should be roughly offset by the increased interest rate charged to the bad debtors. In fact, it is possible that banning such signaling would even benefit the good debtors. The reason is that the good debtors might prefer a contract with no collateral and with an interest rate that reflected the average probability of default in the population, compared to a contract with collateral and a lower interest rate. In the absence of a legal ban on security interests, Creditor would not offer the efficient pooling contract, because of its belief in equilibrium that good debtors issue security interests and bad debtors refuse to issue security interests.

That security interests and other consensual creditor remedies can be used to signal information about debtors does not necessarily mean that they should be banned, because this signaling may play a role in reducing a related problem caused by asymmetric information, credit rationing (Betser, 1985, 1987). Creditor sets the interest rate to reflect the average probability of default in his portfolio. Assume that good debtors are less willing to pay a higher interest rate, because they are more likely to repay the loan.<sup>7</sup> If Creditor cannot distinguish among debtors, the expected profit from any particular loan will decline as the interest rate rises beyond some point, because as the interest rate increases the good debtors drop out of the market. Therefore, creditors (monopolistic or competitive) will not raise interest rates above this point, and credit will be rationed: the demand by bad debtors for (even high-interest) loans will be unmet (Stiglitz and Weiss, 1981). If there are too many bad debtors in the market, their probability of default is sufficiently high, and if the divergence in the probability

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6. If one imposes stronger assumptions, one can show that a monopolist will behave differently than a lender in a competitive market. For example, Besanko and Thakor (1987) show that under certain conditions a monopolist is more likely to prefer credit rationing over collateral.

7. The assumption that the good debtors are more likely to drop out of the market as the interest rate rises is standard, but not universal. For an article assuming the contrary, see Besanko and Thakor (1987).

of default is too large, the market unravels, leaving only the bad debtors willing to borrow but creditors unwilling to lend to them. This is the phenomenon of *adverse selection* (Akerlof, 1970). Security interests and related terms may reduce adverse selection by enabling the creditor to distinguish among good and bad debtors. Security interests and similar terms can serve as signals because they are cheaper for debtors who are less likely to default.

Credit rationing can also result if there is asymmetric information about whether or not the debtor “can” repay a loan (Jaffee and Russell, 1976). That is, debtors may have an incentive to claim destitution in order to avoid repayment, and it may be difficult for creditors or courts to verify this claim. In an extreme case, the only mechanism that the creditor may use to force repayment is to deny future credit (Allen, 1983). Collateral with personal value to the debtor and other forms of creditor remedies ensure that a defaulting debtor cannot in fact repay if the debtor would rather repay the loan than endure the “punishment” of repossession (Rea, 1984; Scott, 1989).

Another kind of asymmetric-information problem arises when Debtor has private information about the care with which he avoids default. “Care” can mean a lot of things: (1) working hard, so that he is not fired and deprived of an income to repay the loan; (2), protecting assets or collateral so that they may be liquidated in case of default; (3), avoiding physical risks that might result in injury; or (4) avoiding risky investments. If Creditor cannot observe Debtor’s level of care and penalize Debtor if he takes insufficient care, and if Debtor does not expect to repay the debt in full because of the legal and nonlegal factors mentioned above, then Debtor will take a suboptimal level of care. This is the problem of *moral hazard*.

One response to this moral hazard is to prohibit, by contract, behavior that increases risk. Many residential mortgage contracts, for example, include a covenant against using the property for commercial purposes. But this response really assumes away moral hazard by supposing that conduct is observable: when conduct is unobservable, it cannot be prohibited by contract. The second response to moral hazard is to require Debtor to bear some of the cost of default, thus converting a debtor who might otherwise be fully judgment-proof into one who is partly judgment-proof. For example, requiring that personally valuable property be collateral

reduces the probability that Debtor will be able to protect it at the time of default through judicial process. Alternatively, Creditor might seek to destroy Debtor's reputation by publicizing the default; to cause psychic harm by liquidating a guarantee from a loved one; or, in the case of loan sharks, to break bones. Even though these actions provide no direct benefits to Creditor while conferring costs on Debtor, they may be efficient because they reduce moral hazard (Rea, 1984).

### 3. Law

#### A. Price Restrictions: Usury Laws

*Description.* Every state has laws restricting the interest rate that can be charged for consumer loans; a sample of these restrictions is set forth in Table 1. However, although the interest rate ceilings in some states are quite low, their effect on the credit market is likely to be limited. There are many reasons for this. First, federal law preempts state usury laws in a variety of cases, the most important being home equity loans, for which there is no federal interest rate ceiling.<sup>8</sup> Further, since the late 1970s, federal law has permitted federally insured state institutions to "export" the high interest rate ceilings of the states in which they are located, permitting them to lend at high interest rates to debtors who reside in states with low ceilings (*Marquette Nat'l Bank of Minneapolis v. First of Omaha Serv. Corp.*). Second, state usury ceilings have long been riddled with exceptions for, among other things, small loans, retail installment loans, and loans issued by favored institutions like credit unions. Third, interest rate ceilings often understate their effective limits, the result of special rules for calculating interest rates when lenders compound, charge fees, give discounts, and calculate balances in different ways. Fourth, remedies for violation of usury laws are frequently narrow (Alperin and Chase, 1986). Fifth, usury ceilings may be evaded in many ways—for example, by disguising interest as part of the "price" of the good if sold on credit with a discount for cash transactions, or by disguising a secured transaction as a lease with high rental payments and a low buy-out price (Peterson, 1983). Sixth, many usury ceilings are set at fixed interest rates, thereby lessening

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8. This was actually an incomplete preemption as the states were given the right to "opt out" and 14 states did so (Alperin and Chase 1986).

**Table 1.** Restrictions on Consumer Loan Contracts and Remedies for Default

State	Usury Limit on Contract Loans (Unsecured \$10,000)	Homestead Exemption	Garnishment <sup>a</sup>	Tenancy by the Entirety
Alabama	No limit	5,000		
Alaska	FRDR <sup>b</sup> + 5%	64,800	\$420/wk	
Arizona	No limit	100,000		
Arkansas	FRDR + 5%	800 (F <sup>c</sup> )		
California	10%	50,000		
Colorado	45%	45,000		
Connecticut	12%	75,000 (F)	75%/40 × FMW	
Delaware	FRDR + 5%	5,000 <sup>d</sup>	85%	X
Florida	18%	No limit <sup>e</sup>	\$ 500/wk	X
Georgia	No limit	5,000		
Hawaii	12%	20,000 (F)	At least 80%	X
Idaho	No limit	50,000		
Illinois	No limit	7,500	85%/45 × FMW	
Indiana	21%	7,500		X
Iowa	U.S. bonds + 2 points	No limit	Varies by income	
Kansas	15%	No limit		
Kentucky	Lesser of 19% or FRDR + 4%	5,000		
Louisiana	12%	25,000		
Maine	18%	12,500	P	
Maryland	8%	5,500		X
Massachusetts	No limit	100,000 (F)		
Michigan	7%	3,500 (F)		X
Minnesota	No limit	200,000 (F)	75%/40 × FMW	
Mississippi	Higher of 10% or FRDR + 5%	75,000		
Missouri	Higher of 10 % or U.S. bonds + 3 points	8,000	90%	X
Montana	No limit	100,000		
Nebraska	16%	12,500	85%	
Nevada	No limit	125,000		
New Hampshire	No limit	30,000 (F)	P	
New Jersey	16%	0 (F)	90%/set by judge	
New Mexico	No limit	30,000 (F)	75%/40 × FMW	
New York	16%	10,000	90%	
North Carolina	Higher of 16% or T-bill rate + 6%	10,000	P	X
North Dakota	T-bill rate + 5.5%, max. not less than 7%	80,000	75%/40 × FMW	
Ohio	8%	5,000		
Oklahoma	18%	No limit		
Oregon	No limit	25,000		
Pennsylvania	No limit	0 (F)	P	X
Rhode Island	Higher of 21% or T-bill rate + 9%	0 (F)		X

Table 1. Continued

State	Usury Limit on Contract Loans (Unsecured \$10,000)	Homestead Exemption	Garnishment <sup>a</sup>	Tenancy by the Entirety
South Carolina	8.75%	5,000 (F)	P	
South Dakota	No limit	No limit	P	
Tennessee	Lesser of Prime Rate + 4 pts. or 24%	5,000		
Texas	2 × T-bill for fixed rate/ 18%–24% for variable	No limit (F)	P	
Utah	No limit	20,000		
Vermont	12%	75,000 (F)		X
Virginia	12%	5,000		X
Washington	Higher of 12% or T-bill rate + 4%	40,000 (F)		
West Virginia	18%	15,000	80%/30 × FMW	
Wisconsin	12% regular, 6% compounding	40,000 (F)		
Wyoming	21%	10,000		X

*Note:* This table is intended to convey a rough sense of the variation among states; all the figures are subject to conditions that can be found in statutes and judicial decisions.

<sup>a</sup> Federal law limits garnishment so that the debtor will be able to keep the greater of 75% of his earnings and 30 times the minimum wage. State law is more restrictive where noted; the percentage and dollar limits refer to the amount that the debtor is entitled to keep. Where there is a slash the debtor is entitled to keep the maximum of the two figures, and  $n \times \text{FMW}$  means  $n$  times the federal minimum wage. "P" indicates that garnishment is prohibited without the debtor's consent.

<sup>b</sup> "FRDR" means Federal Reserve Discount Rate.

<sup>c</sup> "F" means that the state permits the use of the federal exemptions in bankruptcy, 13 U.S.C. 522(d); \$16,150 for the homestead as of January 1, 2001.

<sup>d</sup> The figure refers to the wildcard exemption, which can be applied to any kind of property.

<sup>e</sup> "No limit" means that there is not a monetary limit on the value of the real estate that may be exempted; there may be other limits, including total acreage.

their importance in periods of low inflation. Still, usury ceilings have theoretical interest and historical significance, and they continue to influence many ordinary lending practices.

*Effects.* Usury laws are simply price controls and can be predicted to have many of the same effects: queuing, unsatisfied demand, and an illegal market, loansharking. Unlike standard price controls, however, it is doubtful that usury laws lower the price of a loan, the interest rate, paid by any particular borrower. Because there are many alternative uses of capital, a ceiling on interest rates will simply lead creditors to refuse to

lend to high-risk debtors and instead lend to lower-risk debtors at legal rates or to seek other investment options. To the extent that high interest rates are the result of market power enjoyed by lenders, as a result of either monopoly power or search costs (Ordover and Weiss, 1981), usury laws might be able to lower the rate charged to borrowers. But state and federal regulatory agencies discourage excessive concentration in the banking industry, and many consumer loan markets are now national in scope. In addition, there is little evidence that consumers lack information about interest rates, especially after the implementation of the Truth in Lending Act described below (Schwartz and Wilde, 1979). Even if lenders did have some monopoly power and the usury ceiling reduced the rates paid by some debtors, these ceilings would cause higher-risk debtors to be denied credit because creditors would be unable to charge them higher rates, thus offsetting much, if not all, of the welfare gain.

Ausubel (1991) raises the possibility that interest rates on credit cards are artificially high because of the irrationality of consumers. He argues that low-risk credit card users intend never to borrow and therefore do not consider the interest rate when choosing among credit cards, whereas high-risk credit card users do consider the interest rate. Because creditors cannot distinguish between low-risk and high-risk debtors, no creditor would lower its interest rate, because it would disproportionately attract high-risk debtors. A limit on interest rates could therefore be welfare improving. However, Ausubel's thesis is in tension with recent studies that have found that consumers are sensitive to interest rates (Gross and Souleles, 2000).<sup>9</sup>

Some of the early empirical literature on usury did find that states with usury laws had lower average interest rates than states without them.<sup>10</sup> But most of the literature found that usury laws result in a significant reduction in the access to credit for high-risk debtors.<sup>11</sup> In fact, Villegas (1982, 1989)

9. For a recent discussion of this controversy, see Zywicki (2000).

10. See, for example, Greer (1973), Peterson (1979), Peterson and Ginsberg (1981), Shay (1973), and Wolkin and Navratil (1981).

11. See, for example, Boyes and Roberts (1981), Dunkelberg and DeMagistris (1979), Greer (1975), Kawaja (1969), and Shay (1970). For studies finding no credit rationing, see Eisenbeis and Murphy (1974), Goudzwaard (1968, 1969), and Peterson (1983). This is consistent with studies of the mortgage credit market, which typically

finds that the entire decline in the average interest rate is attributable to the exclusion of these debtors from the market; the usury laws do not reduce the interest rate paid by any individual debtor. This result is unsurprising: the supply of loans should not be inelastic if capital can be used for other projects or in other jurisdictions. The only surprising thing about these findings is that, because usury laws are so easy to circumvent, it is difficult to believe that they have any impact on behavior.

Usury laws have a long and significant history, are still important in many jurisdictions, especially Islamic countries, and continue to resonate with the moral intuitions of many people. This has led scholars to suggest possible benign explanations for their popularity. First, a usury law may be a crude form of social insurance in a jurisdiction that has poorly developed capital markets closed to the outside world and an inefficient or nonexistent welfare system (Glaeser and Scheinkman, 1998). If usury ceilings depressed the price of credit, the poor would be able to borrow more cheaply, and this might be efficient if the poor have a sufficiently higher marginal utility of money than the rich. From an *ex ante* perspective, an individual benefits from usury laws if his lower return when he has capital to spare in some future state of the world is offset by his lower borrowing costs when he needs to borrow in some alternative future state of the world. This argument is inconsistent with the mobility of modern capital, and so has no application to modern conditions; significantly, usury laws have been repealed in every industrialized nation except the U.S., Belgium, and France (Alperin and Chase, 1986), though a fairly restrictive usury law was enacted in Italy in 1996.

Second, welfare laws create a moral hazard, and usury laws may therefore be needed precisely because they restrict access to credit. Because welfare laws reduce the consequences of default for the debtor by providing him with a minimum standard of living after his creditor employs all available remedies, the debtor will be willing to borrow to undertake

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find that restrictions on usury reduce the number of building permits, due to a reduction in home financing. See Austin and Lindsley (1976), Boyes and Roberts (1981), Crafton (1980), Ostas (1976) and Robins (1974). But see McNulty (1980) and Rolnick, Graham, and Dahl (1975), who find no significant effect on building permits but find a significant effect either on nonprice terms or on loan volume.

riskier ventures (Posner, 1995).<sup>12</sup> Usury ceilings prevent these high-risk loans and therefore reduce the negative consequences of the moral hazard. This argument assumes that people benefit from welfare laws, and, unlike the first argument, that an effective welfare system is in place.

There is little statistical evidence for these theories; they are intended to rationalize historical practice.

## B. Restrictions on Creditor Remedies

*Description.* A confusing array of federal and state laws restrict the tools that creditors have traditionally used to force repayment, including the reporting of past consumer behavior and nonlegal mechanisms, such as contacting the debtor and third parties to request repayment.<sup>13</sup> Self-help can be effective: debtors repay loans in order to avoid unpleasant phone calls; threatening letters; humiliation in front of friends, employers, and family members; and damage to their credit reputations.<sup>14</sup> The Fair Debt Collection Practices Act requires certain kinds of creditors to (1) verify the debt if the consumer challenges it; (2), refrain from threats and harassment; (3), refrain from publishing the names of defaulting debtors; and (4) refrain from misrepresentation of their legal rights, the consequences of nonpayment, and so forth (Alperin and Chase, 1986). Although the federal act does not directly apply to the creditor that originated the loan, its restrictions may apply to the creditor's lawyers (*Heintz v. Jenkins*). In addition, some states apply similar regulations to the original creditors as well. Accordingly, we discuss these rules in this section rather than in the section, below, on third-party defenses.

When self-help fails, creditors often sue and obtain repayment through prejudgment and postjudgment remedies. Before judgment a creditor may

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12. A related argument posits that usury laws prevent low-income debtors with a high discount rate from borrowing against future welfare payments and that this credit rationing permits a society committed to providing a minimum per-period welfare to do so at a lower cost (Avio, 1973).

13. The Fair Credit Reporting Act limits the reporting of bankruptcies by consumer reporting agencies to ten years and limits the reporting of most other adverse information to seven years.

14. For example, early in the modern history of consumer credit, "small lenders relied on the professional services of the 'bawlerout,' a female employee who was assigned the job of trapping the delinquent borrower before co-workers and family in order to browbeat him publicly for being a sorry deadbeat" (Calder, 1999). See also Rea (1984).

be able to obtain a lien on the debtor's assets and to garnish the debtor's wages, and these powers are usually sufficient to obtain repayment. However, prejudgment attachment and garnishment are now regulated in various ways by the state and federal governments; they are also subject to constitutional due process limitations. Garnishment, both prejudgment and postjudgment, is heavily restricted by federal law (roughly to 25% of wages, but with many exceptions), and some states have even more restrictive limits or prohibit garnishment altogether. There are fewer restrictions on postjudgment remedies; these usually involve the sheriff's seizing and auctioning off property, or (again) garnishment of wages, which remains heavily restricted even as a postjudgment remedy. Postjudgment seizure of property is significantly curtailed by state (and federal) exemption laws, which limit the kind and amount of property (home equity, clothing, furniture, pensions, and so forth) that can be seized in order to satisfy unpaid debts. A sample of property exemptions and garnishment limitations is provided in Table 1.

A creditor can improve its ability to collect by bargaining in advance for certain rights. For example, a *cognovit* note, in which the debtor essentially binds himself to confess judgment if he defaults, relieves the creditor of the trouble of proving its case in court. However, *cognovit* notes are illegal in many contexts (Alperin and Chase, 1986). By obtaining a security interest a creditor gains priority over unsecured creditors and, if the security interest is perfected, over creditors with later-in-time security interests in the same property. Because a secured creditor can seize much of the property that would otherwise be exempt under state or federal law, debtors and creditors can use security interests to effectively waive many of the exemptions. In addition, the security interest may also allow the creditor to skip some of the steps in the judicial process, and even skip it altogether if the creditor can repossess the collateral without breaching the peace. At one time, creditors would obtain security interests in all the debtor's household goods, even those that were not purchased from the creditors or with the creditors' money.

Today, however, secured consumer credit is heavily regulated.<sup>15</sup> FTC regulations and some state laws forbid creditors to obtain nonpossessory

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15. Creditors may seek to avoid much of this regulation and potentially adverse bankruptcy treatment by recharacterizing the transaction as a lease or a rent-to-own transaction.

nonpurchase money security interests in household goods, although there are some exceptions. The bankruptcy code also permits debtors to nullify nonpurchase money liens on many of these same household goods. Some states provide the debtor a right to redeem the collateral for up to a year, even if the collateral has been sold to a third party, and require the creditor to obtain a court judgment before repossessing collateral. Finally, a foreclosure on collateral will sometimes preclude the creditor from seeking the remainder of the amount owed through a deficiency judgment. Common law and state statutory rules granting a right of redemption and prohibiting deficiency judgments are important forms of regulation of the home mortgage market.

Many of these restrictions are available in bankruptcy, but we discuss bankruptcy separately, below.

*Effects.* Critics argue that the strong contractual rights to repossess consumer goods are inefficient because the repossessed property has minimal resale value for the creditor but considerable personal value for the debtor; these remedies are used in order to coerce (Leff, 1970; Whitford, 1986). Although there is some evidence that fire sales exist (assets are sometimes sold for less than their wholesale book value), other scholars argue that the perception that value is lost is based on a misunderstanding of the operation of markets:<sup>16</sup> It is unlikely that value would be destroyed, given the characteristics of the debtors and creditors and the ability to renegotiate (Schwartz, 1983) and so long as creditors believe that a reputation for aggressive collection techniques might scare off debtors (Peterson, 1986). As we saw above, however, even collection mechanisms that are inefficient at the time of collection may be efficient *ex ante* precisely because they are “coercive.” They can, in theory, reduce moral hazard by increasing the cost to the debtor from defaulting (Rea, 1984) and adverse selection by enabling the creditor to distinguish among debtors by risk level (Bester, 1985). (See generally Epstein, 1975; Scott, 1989.) Regardless, the restrictions on creditor collections generate costs for creditors, and creditors should pass these costs on to debtors in the form of higher interest rates or

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16. See Schuchman (1969), White (1982), Note (1971), and Note (1975). Grau and Whitford (1978) show that repossessions declined after Wisconsin enacted a statute that required creditors to obtain a judgment before seizing collateral from a defaulting debtor. This result is entirely predictable, and, as they appear to acknowledge, they do not show that debtors are made better off by the law in an *ex ante* sense.

else deny access to credit, particularly for high risk debtors. Restrictions on coercive creditor remedies in general, and exemptions in particular, are associated with higher interest rates and increased probabilities of denial of credit.<sup>17</sup> The effects are more pronounced for low-income or low-asset debtors.<sup>18</sup>

As noted, exemptions do not directly affect the supply of secured credit, because creditors can obtain security interests in exempt assets and foreclose on them if the debtor defaults. However, exemptions could indirectly affect the supply of secured credit, in either of two directions. On the one hand, because the value of exemptions is enhanced in bankruptcy as a result of lien waiver provisions and similar laws, more valuable exemptions might lead to more bankruptcies. As the automatic stay and other bankruptcy rules interfere with security interests, more generous exemptions could lead to less secured credit. On the other hand, these added bankruptcies or general defaults may make costly foreclosures less likely because the debtors are in a better position to make the payments on their secured loans out of future income after having the unsecured loans discharged. The empirical evidence is mixed. Although Berkowitz and Hynes (1999) find a very small decrease in the rate of denials and the interest rate on home mortgage loans in the face of larger homestead exemptions, Lin and White (2001) found an increase in these variables. Regardless, to the extent that the exemptions increase the use of secured credit relative to unsecured credit, the parties must go through the formality of obtaining a security interest in order to make assets available for collection in case of default, and that is an added cost.

Limitations on creditor remedies do provide some benefits to the debtor. These limits provide some insurance by protecting the debtor's income and

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17. See, for example, Barth, Gotur, Manage, and Yezer (1983) and Greer (1974). See Gropp, Scholz, and White (1997) (examining the effect of the exemptions on credit markets generally) and Berkowitz and White (2000) (examining the effects of the exemptions on the market for small business loans). We note that Gropp, Scholz, and White (1997) use the same data set used by Villegas (1990) to investigate the effects of usury laws and restrictions on creditor collections other than exemptions. A further study disentangling the effects of each of these restrictions would be useful.

18. That exemption laws have a pronounced effect on debtors with few assets is somewhat of a puzzle as these debtors can exempt all their assets in almost any regime. For example, Gropp, Scholz and White (1997) find a significant reduction in the access to credit for debtors with assets of less than \$7,885 when the exemptions move from the merely large (exemptions between \$25,400 and \$70,400) to the unlimited exemptions.

assets when he is least well off. As noted, they may also prevent socially wasteful debt collection practices. But a defense of these laws has two predicates, both of them difficult to establish. First, the law should restrict remedies only if a market failure prevents creditor from supplying remedial terms that debtors would be willing to pay for and prevents the debtor from using alternative form of protection, such as credit insurance.<sup>19</sup> The usual market failure arguments can be made, of course. Perhaps adverse selection explains why credit contracts rarely limit the creditor's remedial rights. But if the market has failed in this way, it is hard to understand why there is such a robust market in credit insurance.

Second, the defense assumes that the law does reflect debtors' preferences. But the variation of the law across states is too extreme to reflect plausible differences in debtors' risk preferences. For example, an individual can exempt only a few thousand dollars worth of assets in Alabama but a potentially unlimited amount of home equity in Florida. A study of exemption laws in all 50 states over a 22-year period reveals no correlation between the generosity of exemptions and proxies for the demand for insurance (Posner, Hynes, and Malani, 2001).

The exemptions and the bankruptcy right to a discharge may address another concern, that of creating a class of people who do not work because they cannot keep their income or the assets they purchase with it; this explanation is also consistent with limitations on the ability of creditors to contact (and annoy) a debtor's employer. Although creditors and debtors have incentives to renegotiate *ex post*, renegotiations will occasionally fail, because creditors want to maintain a reputation for toughness or hope to flush out debtors who have concealed their assets. The history of debtors' prison is ample evidence. And as that history shows, a class of people immobilized or even imprisoned for debt sits uneasily with mainstream political commitments in a democracy.

To the extent that debtors can waive exemptions and other limitations on creditor remedies, these laws merely change the default rule for collections upon default. Rather than contracting for protection through credit insurance, nonrecourse loans, and other means, the debtor waives protections through security interests, cognovit notes, and the like. A comparison of the merits of the two default rules would require a deeper analysis

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19. We acknowledge the criticisms of this market, where profits appear to be unusually high.

of the preferences of debtors, the costs of contracting, the enforcement of limitations on default planning, and other factors that are beyond the scope of this paper.

A number of studies try to determine if restrictions on creditor remedies provide a net benefit or a net cost. The authors reason that if the restrictions are beneficial, the increase in the interest rate demanded by the creditors should be more than offset by the increased willingness to pay by the debtors. One should be able to verify this directly by separately estimating supply and demand or indirectly by observing the total quantity borrowed. The results of these studies are mixed. Barth, Cordes and Yezer (1986) find that, although statutes limiting deficiency judgments might provide a net benefit, legal restrictions on confessions of judgment clauses, on garnishment, and on security interests in real property create a net cost. Villegas (1990) find that restrictions on security interests in personal property and on wage garnishment provide a net benefit but that prohibitions on wage assignment create a net cost. Relatedly, Greer (1974) and Peterson and Frew (1977) find that prohibitions against attorneys' fees and garnishment reduce the total borrowings. Gropp, Scholz, and White (1997) also do not conduct an explicit comparison of the costs and benefits of the exemptions. However, they examine the effect of the exemptions on the total quantity of credit and find that the exemptions increase total borrowings by high-asset debtors but decrease total borrowing by low-asset debtors. Therefore, following the logic of Villegas (1990), larger exemptions seem to provide a net benefit for high-asset debtors but provide net costs for low-asset debtors.<sup>20</sup>

Although these results are interesting, the tests are imperfect. The comparisons assume that lenders and borrowers (or at least some borrowers) are aware of the legal restrictions, can correctly predict their implications at the time of borrowing, and can adjust the contract in light of these factors. This assumption is questionable if the market failure justifying government intervention is that debtors underestimate the probability of default or that debtors lack information about the consequences of default.

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20. Schill (1991) finds that the right of redemption and antideficiency judgment rule in the mortgage market raise mortgage interest rates by only a small amount and argues that this cost may be outweighed by other benefits. He does not examine the effect of these rules on access to credit, however, and he does not empirically evaluate the benefits in addition to the costs.

Moreover, even if debtors are fully informed, a finding that total credit increases is not a necessary condition for determining that the laws are beneficial. Debtors may be willing to accept lower borrowing levels as a price for increased insurance.<sup>21</sup> In addition, involuntary creditors such as tort claimants cannot adjust to the laws by charging a high interest rate. Finally, the limits on creditor remedies may play a role similar to those of usury laws in discouraging high-risk loans undertaken as a result of the moral hazard created by social welfare laws (Jackson, 1985).

### C. Bankruptcy

*Description.* By filing for bankruptcy under Chapter 7 of the federal bankruptcy code, a debtor can protect all his future income from his creditors, retain exempt property, preserve certain kinds of trust funds, including pensions, even when they are not exempt under nonbankruptcy law, and delay the seizure of other assets through the automatic stay. A large consumer bankruptcy literature addresses issues such as the role of reaffirmations, the proper role of Chapter 13, and the desirability of contractual bankruptcy but a review of this literature is beyond the scope of this paper.<sup>22</sup> However, a brief overview of some of the empirical literature on bankruptcy is necessary for a proper understanding of the results discussed in section B.

*Effects.* While several studies cited find that restrictions on creditor remedies, including exemptions that apply in bankruptcy, affect the decision to borrow, there is little evidence that these same restrictions affect the decision whether or not to repay. This is surprising because debtors in financial distress should be more aware of the law of collections than debtors applying for a loan, particularly if they have retained an attorney. Likewise, creditors should not change their lending behaviors in response to exemptions unless the exemptions have a real effect on their expected losses.<sup>23</sup> Unfortunately, good data on default and collections

21. For an example of this, see Appendix.

22. The law is frequently criticized for being too generous and inflexible. See, e.g., Adler, Polak, and Schwartz (2000), Wang and White (2000), and White (1998a; 1998b). For a recent survey of the consumer bankruptcy literature, see Kowalewski (2000).

23. Of course credit rationing could lead to fewer bankruptcies in financial distress and thereby dampen any effect that larger exemptions have on repayment rates.

are not available by state.<sup>24</sup> The available evidence, based on bankruptcy data, suggests that exemptions do not significantly affect the filing rate (see below), and it is unlikely that exemptions substantially affect repayment rates in bankruptcy, given the minimal repayments that unsecured creditors actually receive (White 1987).

Arguing that larger exemptions should make bankruptcy more attractive to debtors, many scholars have predicted that larger exemptions should increase bankruptcy filings. While White (1987) finds a positive and statistically significant effect, the effect is small, and virtually all other published studies have found either no statistically significant effect or even an effect with the "wrong" sign.<sup>25</sup> This result has been repeated in more recent studies that use panel data or quasi-experiments.<sup>26</sup>

Because the literature was forced to compare the exemptions and the bankruptcy filing rate, its failure to find a strong positive correlation is less surprising than it appears. The majority of exemptions available in bankruptcy are also available to a debtor defaulting under state law and therefore, though the exemptions should make default relatively more attractive than repayment, they do not necessarily make bankruptcy relatively more attractive than defaulting under state law. The many debtors who have essentially zero assets file for bankruptcy in order to obtain the discharge: these people should not file in greater numbers when exemptions increase. To establish a link between the exemptions and the bankruptcy filing rate, one might be able to invoke the lien waiver powers in the Bankruptcy Code, or the incentive to avoid the complex financial arrangements that must be undertaken by a debtor who funnels all income into nonexempt assets. These are some of the ways in which

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24. Empirical studies of the effects of garnishment restrictions on the filing rate highlight the shortcomings of focusing on bankruptcy filings. These studies generally find that states with laws that are more restrictive of the ability of a creditor to garnish a debtor's wages have higher filing rates. See, for example, Apilado, Dauten, and Smith (1978); Ellis (1998a), and Heck (1981). Although this effect could be due to higher repayment rates, it is more plausibly due to the ability of defaulting debtors to protect their future incomes without filing for bankruptcy.

25. See, for example, Apilado, Dauten, and Smith (1978) (finding mixed results when testing for a link between exemptions and the filing rate before to the enactment of the Bankruptcy Reform Act of 1978), Peterson and Aoki (1984), and Shiers and Williamson (1987).

26. See Buckley and Brinig (1998), Weiss, Bhandari, and Robins (1996). But see Pomykala (1997) and Hynes (1998), finding significant positive effects.

the discharge and exemptions are complements, but they seem tenuous (Hynes, 1998).

The failure to find a correlation between exemption levels and bankruptcy filings might also be due to an inappropriate use of aggregate data when testing a hypothesis about individual behavior.<sup>27</sup> The exemptions may have little effect on aggregate filing rates because they are relatively generous compared to the assets of most Americans, and the reduction in access to credit may mean that debtors in states with large exemptions are less likely to end up in financial distress.<sup>28</sup> Although current working papers use individual-level data to examine the filing decision, their results cannot readily be interpreted as a test of the impact of exemption levels. These papers test whether debtors respond to the financial incentives of bankruptcy more generally, including the discharge, rather than just the exemptions, and therefore examine the effect of the debtor's "benefit" from filing. "Benefit" is defined as the debt that can be discharged less any assets above the exemption that the debtor would lose by filing (Chakravarty and Rhee, 1999; Fay, Hurst, and White, 1998). Even if the exemptions have no effect on the filing decision, the coefficient on "benefit" may still be significant because households with more debt file in order to obtain the discharge.

Several studies investigate whether the Bankruptcy Reform Act of 1978 increased the filing rate and related actions.<sup>29</sup> That statute instituted several reforms that could have made bankruptcy more attractive (Domowitz and Eovaldi, 1993), and the bankruptcy filing rate increased markedly in the years that followed. Using time series econometrics techniques, scholars have tried to disentangle the effects of this act from the significant

27. Early scholars attributed this "failure" to possible simultaneity bias; legislatures might adopt smaller exemptions in response to higher filing rates. Peterson and Aoki (1984), Shiers and Williamson (1987). However, it is unclear why this same bias would not have a significant effect on the studies of the credit market. Although we lack a good explanation for a state's choice of exemptions, one might be able to test this theory by using historical exemptions as an instrumental variable.

28. It is possible to collect data on loans made by lending institutions in each state. However, the importance of national lenders in the mortgage and credit card industry makes it unlikely that such a variable would be highly correlated with the debt issued by residents of each state.

29. While we will discuss those articles discussing the decision to file, the interested reader may wish to consult those articles discussing the effect of the act on the choice between Chapters 7 and 13. See, for example, Domowitz and Sertain (1999a, 1999b).

macroeconomic effects of this time period. The majority of the early studies addressing this question did, in fact, estimate that the code played a significant role in increasing the bankruptcy filing rate.<sup>30</sup> One difficulty with this literature, however, is that it requires a controversial assumption regarding the treatment of married couples filing jointly, which was not permitted before the Bankruptcy Reform Act of 1978. Domowitz and Eovaldi (1993) examine summary statistics presented in studies of actual filings to determine a range of values for the proper adjustment to the post-act filing rate. When they use the lowest value of this range, they estimate that the Bankruptcy Reform Act of 1978 increased the filing rate by 22%. However, this estimate is not statistically significant; one does not find a statistically significant result until one uses a value near the upper end of this range. One solution to the problem highlighted by Domowitz and Eovaldi (1993) would be to measure the effect on defaults (as measured by loans charged off by banks) rather than bankruptcies.

Another difficulty with examining the effect of the Bankruptcy Reform Act of 1978 is that there were three other major legal changes that occurred at about the same time. In 1977 the Supreme Court ruled that restrictions on advertisements by lawyers are an unconstitutional restriction of free speech, thus increasing the spread of information about the advantages of filing for bankruptcy (*Bates v. State Bar of Arizona*). In 1978 the Supreme Court ruled that the interest rate paid by a borrower on a loan from an out-of-state bank would be governed by the usury ceiling of the state in which that bank was located (*Marquette Nat'l Bank of Minneapolis v. First of Omaha Serv. Corp.*). This reduced the ability of a state to set effective interest rate ceilings and increased the number of high-interest, high-risk loans.<sup>31</sup> Both of these events could have stimulated bankruptcy filings independent of the effect of the 1978 Act. Finally, the Fair Debt Collection Practices Act was passed in 1977. Although this act may have increased the default rate, it should have decreased the bankruptcy rate by enhancing the ability of debtors to avoid repayment without filing for bankruptcy. The fact that the Fair Debt Collection Prac-

30. See, for example, Boyes and Faith (1986), Peterson and Aoki (1984), and Shepard (1984). But see Bhandari and Weiss (1993).

31. Ellis (1998b) does discuss the relative importance of interest rate ceilings and the Bankruptcy Reform Act of 1978. However, if one uses state usury rates before 1978, a more rigorous attempt at disentangling the effects might be possible.

tices Act may have had an effect on the bankruptcy rate that would have conflicted with the presumed effects of the Bankruptcy Reform Act and the other laws is yet another reason to examine the default rate rather than the bankruptcy rate.

#### D. Third-Party Defenses

*Description.* When retailers sell products on credit, they frequently resell the debt to a third-party creditor. After this sale the buyer is obligated to make payments directly to the third-party creditor. Historically, this was true even if the contract between the buyer and the retail seller was vulnerable to legal challenge. If, for example, the buyer purchases defective goods from a subsequently judgment-proof seller, the buyer would not be able to use the seller's breach as a defense against the third-party creditor's claim for repayment of the loan and would have no remedy against the original seller. This outcome was compelled by the holder in due course doctrine when the buyer signed a negotiable instrument, but it could easily be obtained contractually by adding a waiver-of-defense clause to a nonnegotiable instrument. The usefulness of these doctrines for third-party creditors is now severely restricted by federal and state law (Alperin and Chase, 1986).

*Effects.* The division of labor between seller and third-party creditor clearly has advantages. Each party can specialize in developing expertise in its own market. The third-party doctrines also enhance the ability of creditors to reduce region- or seller-specific risk by reselling the debt, sometimes in large pools as "securitized" assets. The existence of these advantages is supported by studies showing a reduction in the ability of retailers to obtain financing and in the ability of consumers to obtain credit in jurisdictions that were the first to ban the third-party doctrines (Röhner, 1975).

Opponents of the holder in due course and negotiability doctrines argue that the deep-pocketed financier can more cheaply bear the risk of breach by the seller than the buyer can and, further, that it can more cheaply monitor sellers and prevent them from breaching in the first place. When financiers have a continuing relationship with the seller, these conditions might be met. But if these conditions are met and the market is competitive, then all three parties will voluntarily place the risk on the financier.

It is not necessary for the law to prohibit the parties from choosing alternative relationships, and indeed such a prohibition would reduce social welfare.

The regulations appear to be based on the assumption that the market fails, perhaps because of pervasive consumer ignorance, and that the regulations compel the outcome that the parties would want. This argument assumes that consumers irrationally fail to update their beliefs about credit practices, even though they appear to do so in cash sale contexts, where sellers supply warranties (for example) in order to attract buyers. Although this is possible, it seems just as likely that consumers take advantage of the cost savings permitted by specialization and diversification.

### E. Information Disclosure

*Description.* The Truth in Lending Act and related state and federal laws require creditors to provide credit information in a clear and consistent way. These laws apply not just to the credit contract itself, but to all communications, such as advertisements, bills, responses to billing inquiries, and credit reports. Although the Truth in Lending Act and the associated regulations are complex and impose a number of obligations on creditors, we will discuss two of the primary elements of this act.<sup>32</sup> First, this law requires lenders to clearly present the "amount financed," "finance charges," and "annual percentage rate" as calculated in a standardized manner. Second, the law requires that creditors taking a security interest in the debtor's home provide an explicit disclosure of such security interest and the debtor's right to rescind the contract within three days (this right may be extended to three years if certain disclosure requirements are not met). The Truth in Lending Act provides for enforcement both by regulatory agencies and by borrowers who are given a private right of action (Alperin and Chase, 1986).

*Effects.* The stated goals of the Truth in Lending Act are to increase economic stability, to enhance the ability of consumers to shop for attractive loan terms, and to prevent inaccurate and unfair billing. The first of

32. For example, the Truth in Lending Act regulates the process of correcting billing errors, the credit card customer's liability for unauthorized use of the card, and so forth. For reasons of space, we do not deal with these and other restrictions.

these goals cannot be evaluated empirically and the last of these goals is similar to the prevention of fraud and hence beyond the scope of this paper. The second goal is largely consistent with the discussion of information failure presented above. The standardized calculations required by the act—the amount financed, the finance charge, and the interest rate—are classic examples of scoring systems and there is some evidence that the Truth in Lending Act increased consumer awareness of the terms covered by the act, particularly the annual percentage rate (Mandell, 1971; Brandt and Day, 1974; Day and Brandt, 1973; Shay and Schrober 1973).

Unfortunately, there is also evidence that the beneficial effects of these laws in enabling consumers to better shop for attractive loans may have been limited to well-educated, affluent borrowers. (Brandt and Day, 1974; Day and Brandt, 1973; Deutcher, 1973; Mandell, 1971; Shay and Schober, 1973; White and Munger, 1971). Moreover, a problem common to all scoring systems is that firms are driven to emphasize the measured attribute at the expense of hard-to-measure attributes (Beales, Craswell, and Salop, 1981a, 1981b). If consumers focus disproportionately on the interest rate, lenders have an incentive to compete over this term and provide less attractive collection terms or cut back on customer service. There is some evidence of this phenomenon: borrower awareness of terms not covered by the Truth in Lending Act, such as the dollar amount of the finance charges, actually fell after its passage (Brandt and Day, 1974).

The required disclosure of the scores created by the Truth-in-Lending Act is more controversial. These scores are brand specific information and creditors should have sufficient incentive to disclose this information in order to gain a competitive advantage. Government regulation may overcome a collective action problem if no single creditor would have the incentive to invest the resources to establish a credible standard. Although a period of mandatory disclosure may be helpful in establishing the government-sponsored scoring system (Beales, Craswell, and Salop, 1981b), any further period of mandatory disclosure would seem unnecessary because typical stories of collective action problems stemming from brand-specific information are inapplicable.<sup>33</sup> Of course, we have noted that creditors with market power may wish to conceal private information

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33. Securities law, for example, requires issuers of securities to reveal a great deal of financial and business information. A popular explanation for this requirement is that issuers fear that if they provided adequate information to their investors this information

in order to engage in price discrimination, but no one has shown that the act has affected the ability of such creditors to price discriminate, if in fact there are such creditors.

The requirement that creditors provide special disclosure (accompanied by a right of rescission) of any security interest taken in the home is a better example of mandated disclosure. Creditor obviously has no incentive to inform Debtor of the legal consequences of a security interest and to disclose the right of rescission, and his competitors may have insufficient incentive to disclose them as well, as discussed. We note, however, that the traditional argument for mandated disclosure would seem to encompass much broader disclosure of the legal consequences of failing to pay a debt than what is required by the act. If debtors do not know about the effects of security interests, they are not likely to know about the holder in due course doctrine or the right of redemption. The difficulty is that too much disclosure of technical information may overwhelm debtors and cause them to ignore it (compare Beales, Craswell, and Salop, 1981b).

Critics of the Truth in Lending Act have focused their criticism on the difficulty of complying with the law. In addition to the administrative costs of compliance, the Truth in Lending Act may have reduced the ability of creditors to collect on bad loans, since a determined debtor can almost certainly find some fault with the disclosure by the creditor (Rubin, 1991). Although there is limited survey evidence that the difficulty in compliance has reduced creditors' willingness to advertise and risk violation (Angell, 1971), we know of no studies assessing the effect of this law on creditors' willingness to lend.

## F. Antidiscrimination Laws

*Description.* The Fair Housing Act (FHA) forbids creditors to discriminate against applicants for home mortgage loans on the basis of race, color, religion, sex, national origin, or handicap or family status. The Equal Credit Opportunity Act (ECOA) forbids them to discriminate against applicants for credit generally on similar, though not identical grounds. The Home Mortgage Disclosure Act requires financial insti-

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would also be revealed to their competitors, but all investors and issuers would be better off if adequate information were revealed (Mahoney, 2001).

tutions to report data on all of their applicants for home mortgages, including the race of the applicant.

Perhaps the most significant antidiscrimination statute is, by its express terms, not an antidiscrimination statute at all. The Community Reinvestment Act (CRA) requires the appropriate federal banking regulators to “encourage . . . institutions to help meet the credit needs of the local communities in which they are chartered consistent with the safe and sound operation of such institutions.” However, the CRA was largely justified on the grounds of perceived discrimination and interpretations by regulatory agencies refer to the need to enhance credit availability for minority groups (Hylton and Rougeau, 1996).

*Effects.* There is an extensive literature on the role of discrimination in lending markets and a full review is beyond the scope of this paper.<sup>34</sup> There is clear evidence of historical discrimination in lending markets, often supported by overt government policy, but there is no consensus as to whether discrimination still plays a significant role in credit markets, whether it plays a role in some credit markets like the mortgage market but not others, and whether such discrimination that exists is based on animus or the use of race as a statistical proxy for credit risk (Hylton and Rougeau, 1996, 1999; Swire, 1995).<sup>35</sup> To understand the difficulty of evaluating the laws against discrimination, suppose that discrimination is due to the use of proxies. On the one hand, a prohibition of the use of statistical discrimination may force creditors to expend resources to try to distinguish between debtors and may exacerbate asymmetric-information problems. On the other hand, statistical discrimination may cause minorities to underinvest in human capital and the development of a credit history, in anticipation of being denied credit on account of their race (Hylton and Rougeau, 1996).

There have been few successful suits brought under either the FHA or the ECOA (Swire, 1995), and therefore there has not been much academic debate concerning these laws. By contrast, the CRA has been controversial: many have argued that it is costly and ineffective. The CRA gener-

34. Good surveys can be found in Hylton and Rougeau (1996) and Swire (1995).

35. Partly because of the data generated by the Home Mortgage Disclosure Act, empirical studies of discriminatory lending focus on the mortgage market rather than other segments of the credit market.

ates significant compliance costs only for those banks that have branches in low-income areas and thus may discourage large banks from serving low-income areas (Macey and Miller, 1995) and discourage the development of small banks to serve low-income debtors (Hylton and Rougeau, 1999). Hylton and Rougeau (1996, 1999) argue that the current enforcement approach encourages hollow compliance in the form of loans to wealthy developers operating in low-income neighborhoods or agreements designed solely to appease politicians and political activists, and rent-seeking behavior by politicians, interest groups, and even rival banks trying to block bank mergers. Finally, Schill and Wachter (1995) argue that by targeting the location of the investment the CRA and related laws may encourage concentration of poverty in urban areas.

In the end, there are plausible arguments for and against the CRA and its effects remain poorly understood. Commentators agree that the CRA needs substantial reform, but they disagree strongly as to the direction this reform should take with some calling for safe harbor provisions or a switch to a subsidy system and others calling for more vigorous enforcement.

#### **4. Conclusion**

Regulation of the market for consumer credit provides a number of benefits to consumers. It gives them information about the terms and consequences of the credit transaction, it provides them insurance against shocks, and it protects them from discrimination. But a proper defense of consumer credit regulation must explain why the market would not supply these benefits if consumers are willing to pay for them. The availability of credit insurance, the many ways in which typical credit transactions trade off between interest rate and risk, and the existence of information intermediaries all suggest that the market does respond to some degree to consumer demand for credit protections.

Models that incorporate information asymmetry and market power have ambiguous implications for consumer credit regulation. Information problems do prevent markets from achieving the first best, and laws regulating the credit market can in theory increase social welfare. But it is difficult to determine whether the premises of the models are met in reality. Complicating the analysis, the sensitivity of consumers and creditors to the law, whether because of irrationality or rational ignorance, is unclear. And it

is not clear how much the law would influence the behavior of even a rational, well-informed consumer, given the many loopholes, the limited penalty structures, and the many ways in which creditors can evade the law and creditors and debtors can contract around it.

## Appendix

This appendix sets forth a simple example of how a law that solves a failure of the credit market could, in theory, result in a decline in total borrowing.

Assume that there is a debtor with per-period utility  $U()$  where  $U' > 0$  and  $U'' < 0$  and a creditor that is risk neutral. Assume that the debtor makes a take-it-or-leave-it offer to the creditor to borrow some amount  $B$ . Assume further that the debtor has no first-period income and will have a second-period income of  $L$  with probability  $p$  and a second-period income of  $H$  with probability  $(1 - p)$ . Assume that the debtor defaults if and only if second-period income equals  $L$  (the marginal dollar borrowed does not affect the probability of default) and that he is entitled to retain an amount  $E$  in default. Finally, in order to make the example as simple as possible, assume that neither the creditor nor the debtor discount future values.

The creditor must charge an interest rate ( $R$ ) such that

$$B = (1 - p)(BR) + p(L - E), \quad \text{or } R = \frac{B - p(L - E)}{(1 - p)B}. \quad (1)$$

The debtor will therefore maximize

$$U(B) + (1 - p)U(H - BR) + pU(E), \quad \text{or} \\ U(B) + pU(E) + (1 - p)U\left(H - \left(\frac{B - p(L - E)}{1 - p}\right)\right). \quad (2)$$

Or, the debtor will set

$$U'(B) = U'\left(H - \left(\frac{B - p(L - E)}{1 - p}\right)\right). \quad (3)$$

In this very simple example, the amount borrowed is always decreasing in the exemption. The reason is that the debtor seeks two things: low-cost credit, and insurance. The lower exemption—which in this example is set by contract rather than by statute—reduces the cost of credit but also reduces the amount of insurance. If the latter effect dominates (as in

this example), an optimal exemption results in less bargaining than a less generous exemption. This example is deliberately contrived; it assumes that the probability of default is independent of the amount borrowed and only considers how the exemptions affect borrowing through a change in the interest rate. If a debtor is reluctant to borrow a certain amount because he may end up in a very painful default, the exemptions could increase borrowing by lessening that fear. This effect is not present here because a marginal change in borrowing has no effect on the probability of default and never reduces consumption when the marginal utility of consumption is higher than it is in period one. A more general model would show that if both factors are considered, an increase in total borrowing is sufficient to show that a law is efficient but is not necessary.

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