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Bankruptcy Reform and Credit Cards

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From 1980 to 2004, the number of personal bankruptcy filings in the United States increased more than five-fold, from 288,000 to 1.5 million per year. By 2004, more Americans were filing for bankruptcy each year than were graduating from college, getting divorced, or being diagnosed with cancer. A number of rich and famous people also filed for bankruptcy, which generated enormous publicity, raised public awareness of bankruptcy as a way to avoid repaying one's debts, and suggested that bankruptcy was no longer subject to social disapproval. Famous bankrupts include former Governor of Texas John Connally, corporate raider Paul Bilzerian, actor Burt Reynolds, actresses Debbie Reynolds and Kim Basinger, rapper MC Hammer, singer Merle Haggard, U.S. baseball commissioner Bowie Kuhn, and boxer Mike Tyson (according to ⟨http://www.angelfire.com/stars4/lists/bankruptcies.html⟩, 2007).

Lenders responded with a major lobbying campaign for bankruptcy reform that lasted nearly a decade and cost more than $100 million. Their efforts were unsuccessful during the 1990s, but in 2005, the Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA) became law. It made bankruptcy law much less debtor-friendly. Personal bankruptcy filings surged to two million in 2005 as debtors rushed to file under the old law and then fell sharply to 600,000 in 2006.

This paper begins with a discussion of why personal bankruptcy rates rose, and will argue that the main reason is the growth of "revolving debt"—mainly credit card debt. Indeed, from 1980 to 2004, revolving debt per household increased nearly five-fold in real terms, rising from 3.2 to 12.5 percent of U.S. median family

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income. As of 2004, households that held credit card debt had an average revolving debt level of $15,150, and the average bankruptcy filer had credit card debt of $25,000.[1] Table 1 shows real revolving debt per household and the number of personal bankruptcy filings from 1980 to 2006.

The paper then discusses how the Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA) of 2005 altered the conditions of bankruptcy. Prior to 2005, bankruptcy law provided debtors with a relatively easy escape route, and many ended up having their credit card and other debts discharged (forgiven) in bankruptcy. The new bankruptcy legislation made this route less attractive by increasing the costs of filing and forcing some debtors to repay from post-bankruptcy earnings.

However, making bankruptcy law less debtor-friendly will not solve the problem of consumers borrowing too much. After all, when less debt is discharged in bankruptcy, lending becomes more profitable, and lenders have an incentive to offer more credit cards and larger lines of credit. In fact, during the first year that BAPCPA was in effect, revolving debt per household rose by 5.3 percent in nominal terms—higher than the rate of increase during any of the previous five years. This essay considers the balances that need to be struck in a bankruptcy system and how the U.S. bankruptcy system strikes these balances in comparison with other countries. I argue that a less debtor-friendly bankruptcy policy should be accompanied by changes in bank regulation and truth-in-lending rules, so that lenders have a greater chance of facing losses when they supply too much credit or charge excessively high interest rates and fees.

Why Did Personal Bankruptcy Filings Increase?

There are two main questions about the causes of bankruptcy filings: Why do people file for bankruptcy? And what caused the U.S. bankruptcy filing rate to increase so dramatically between 1980 and 2004?

Adverse Events

One set of potential causes of bankruptcy is adverse events—such as job loss, health problems/high medical costs, and divorce—that reduce debtors' incomes or increase their living costs. Some researchers argue that adverse events explain most bankruptcy filings. Using data from surveys of bankruptcy filers, Sullivan, Warren, and Westbrook (2000) claimed that 67 percent of bankrupts filed because of job loss, and Himmelstein, Warren, Thorne, and Woolhandler (2005) claimed that

[1] The average revolving debt of households that hold credit card debt is calculated assuming that 76 percent of households have credit cards and 63 percent of cardholders have credit card debt (Johnson, 2005; Laibson, Reppetto, and Tobacman, 2003). Debt of households in bankruptcy is based on a sample of filings in 2003 (Zhu, 2007).

Table 1
Nonbusiness Bankruptcy Filings and Consumer Revolving Debt in the United States, 1980–2006

	Nonbusiness bankruptcy filings	*Real consumer revolving debt per household (in 2006 dollars)*
1980	287,000	$1,664
1985	341,000	$2,687
1990	718,000	$3,943
1995	874,000	$5,927
2000	1,217,000	$7,637
2001	1,452,000	$7,537
2002	1,539,000	$7,679
2003	1,625,000	$7,591
2004	1,563,000	$7,635
2005	2,039,000	$7,544
2006	598,000	$7,694

Sources: Bankruptcy filings are taken from American Bankruptcy Institute (2007a). Data on revolving debt and the consumer price index are taken from *Economic Report of the President 2007,* tables B-77 and B-60. The number of U.S. households (used to calculate real revolving debt per household) is from the *U.S. Census Bureau, Current Population Reports,* table 57.
Notes: Bankruptcy filings in the United States may be by an individual or a married couple.

55 percent of bankrupts filed because of illness, injury, or medical bills. But these findings have been criticized as exaggerated, because the first study treated job loss as a cause of bankruptcy even if debtors quickly obtained new jobs and the second study treated health care expenditures as a cause of bankruptcy even when these expenditures were modest.[2]

Other evidence suggests that adverse events play a much less important role in explaining bankruptcy filings. In 1996, the Panel Study of Income Dynamics (PSID), a panel dataset that represents all U.S. households, asked its respondents whether they had ever filed for bankruptcy and, if so, why. Among bankruptcy filers, only 21 percent gave job loss as their primary reason for filing, and only 16 percent gave illness, injury, or medical costs as their primary reason. In Fay, Hurst, and White (2003), my coauthors and I used this data to estimate a model of the

[2] In the latter study, bankrupts were classified as filing due to medical reasons whenever they reported $1,000 or more in medical expenses during the previous two years. But the average household with annual income of $22,000 to $40,000 spends $2,250 per year on health care, or $4,500 over two years. Bankrupts were also classified as filing due to medical reasons if they reported problems with alcohol, drugs, or gambling or if a birth or death occurred in the family, even if they did not state that these factors were reasons for filing. See Dranove and Millenson (2006).

household bankruptcy filing decision that tested the importance of adverse events. We did not find a significant relationship between bankruptcy filings and either job loss or health problems for the household head or spouse, although we did find that bankruptcy was more likely to occur if the household head had recently been divorced.

In any case, adverse events do not provide a good explanation for the dramatic increase in bankruptcy filings, because such events have not become much more frequent over time. The unemployment rate was 9.7 percent in 1982, fell to 5.6 percent in 1990, and since then has fluctuated between 4.0 and 7.5 percent. The divorce rate also declined, from 5.2 per 1,000 in 1980 to 3.8 per 1,000 in 2002. Medical costs also can't explain the increase in bankruptcy filings. Out-of-pocket medical expenditures borne by households increased only slightly as a percent of median U.S. family income, from 3.5 percent in 1980 to 3.9 percent in 2005 (U.S. Census Bureau, 2007, table 120). The percentage of Americans not covered by health insurance has also remained fairly steady: it was 14.8 percent in 1985, 15.4 percent in 1995, and 15.7 percent in 2004 (U.S. Census Bureau, 1990 and 2007, table 144).

The availability of casino gambling is another possible explanation for the increase in bankruptcy filings: specifically, casinos existed only in Nevada and New Jersey in 1980 but had spread to 33 states by 2000. Barron, Staten, and Wilshusen (2002) found that bankruptcy filing rates were 2.6 percent higher in counties that contained a casino or were adjacent to a county with a casino than in counties that were further from the nearest casino. However the effect was fairly small: if gambling was abolished all over the United States, their model predicts that bankruptcy filings would fall nationally by only 1 percent.

Sullivan, Warren, and Westbrook (2000) also argue that bankruptcy filings increased over time because bankruptcy has become a middle-class phenomenon, so that households in a much larger portion of the income distribution now file. However, surveys show that, since the early 1980s, the median income of bankrupts has fallen rather than risen relative to the U.S. median family income level. Sullivan, Warren, and Westbrook (1989) found that the median income of filers in 1981 was 70 percent of U.S. median family income that year; while in a later survey, Sullivan, Warren, and Westbrook (2000) found that the median income of filers in 1991 had fallen to 50 percent of the U.S. median family income level. In the largest and most recent survey, Zhu (2007) found that the median income of filers in 2003 was only 49 percent of U.S. median family income level that year. Thus, the evidence suggests that the typical bankrupt has become poorer over time, not more middle class.

From Credit Cards to Rising Bankruptcy Filings

In the bankruptcy survey of the Panel Study of Income Dynamics, the most common reason that households gave for filing for bankruptcy was "high debt/ misuse of credit cards"—33 percent gave this as their primary reason for filing. A

2006 survey of debtors who sought credit counseling prior to filing for bankruptcy found that debt was even more important: two-thirds were in financial difficulty because of "poor money management/excessive spending" (National Foundation for Credit Counseling, 2006). In addition, all of the empirical models of the bankruptcy filing decision have found that consumers are more likely to file if they have higher debt. Domowitz and Sartain (1999) found that households are more likely to file as their credit card and medical debt levels increase. Gross and Souleles (2002a) similarly found that credit card holders are more likely to file as their credit card debt increases. In Fay, Hurst, and White (2002), my coauthors and I found that households are more likely to file as their financial gain from filing increases—where the financial gain from filing mainly depends on how much debt would be discharged in bankruptcy. Since both our study and the Gross and Souleles (2002a) study include dummy variables for each year, the results of these studies suggest that debt is not just acting as a proxy for some other factor affecting bankruptcy filings that increases over time, but is itself an important explanation for the increase in filings.

International comparisons also suggest a connection between credit card debt and bankruptcy filings. Ellis (1998) uses the comparison between the United States and Canada to argue for the importance of credit card debt in explaining the increase in bankruptcy filings. General credit cards were first issued in 1966 in the United States and in 1968 in Canada. In Canada, both credit card debt and bankruptcy filings increased rapidly starting in 1969. But in the United States, usury laws in a number of states limited the maximum interest rates that lenders could charge on loans, which held down their willingness to issue credit cards. U.S. bankruptcy filings remained constant throughout the 1970s. In 1978, however, the U.S. Supreme Court effectively abolished state usury laws in the *Marquette* decision, and after that, both credit card debt and bankruptcy filings increased rapidly in the United States.[3] Mann (2006) documents a similarly close relationship between credit card debt and bankruptcy filings in Australia, Japan, and the United Kingdom.

Livshits, MacGee, and Tertilt (2006) use calibration techniques to examine various explanations for the increase in bankruptcy filings since the early 1980s. They find that only the large increase in credit card debt combined with a

[3] In *Marquette National Bank of Minneapolis v. First Omaha Services Corp.* (435 U.S. 299 [1978]), the U.S. Supreme Court held that states cannot regulate interest rates charged on credit card loans if the lender is an out-of-state bank. After this decision, banks that issue credit cards quickly moved to states such as South Dakota and Delaware that had abolished their usury laws. A later decision by the Supreme Court, *Smiley v. Citibank (South Dakota), N.A.* (517 U.S. 735 [1996]), used the same reasoning to prevent states from regulating credit card late fees. Two additional changes that occurred in the United States in 1978 could also have caused bankruptcy filings to increase: the adoption of a new U.S. Bankruptcy Code and the legalization of lawyer advertising, which caused lawyers to begin advertising the availability of bankruptcy. But while these factors could have been responsible for a one-time increase in bankruptcy filings, they are unlikely to explain the steady increase over the past 25 years.

reduction in the punishment for bankruptcy can explain the increase in bankruptcy filings since the early 1980s.

Finally, mortgage debt has also grown rapidly since 1980, although the growth rate of mortgage debt is well below the growth rate of revolving debt; that is, real mortgage debt per household tripled between 1980 and 2006, while real revolving debt per household grew by a factor of 4.6 over the same period. The increase in mortgage debt and the increase in bankruptcy filings are related in several ways: First, homeowners often file for bankruptcy to delay mortgage lenders from foreclosing on their homes. Second, although mortgage debt is not discharged in bankruptcy, homeowners may want to file because having their consumer debt discharged makes it easier for them to meet their mortgage obligations. Finally, debtors may file for bankruptcy if their mortgage lender has already foreclosed and the house has been sold for less than the amount owed. In this situation, debtors in some states are liable for the difference, but the debt can be discharged in bankruptcy. For more discussion of these interactions between mortgage debt and consumer debt, see Berkowitz and Hynes (1999) and Lin and White (2001).

Overall, the increase in credit card and possibly mortgage debt levels since 1980 provides the most convincing explanation for the increase in bankruptcy filings in the United States. But adverse events and debt levels interact with each other in explaining the increase in bankruptcy filings because, as debt levels increase, any particular adverse event is more likely to trigger financial distress and bankruptcy.

The Evolution of Credit Card Markets

Given the apparent connection between the expansion in credit card debt and the rise in bankruptcy filings, it's useful to review how markets for credit cards have evolved in recent decades. My discussion here draws on Ausubel (1997), Evans and Schmalensee (1999), Moss and Johnson (1999), Peterson (2004), and Mann (2006). Until the 1960s, consumer credit generally took the form of mortgages or installment loans from banks or credit unions. Obtaining a loan required going through a face-to-face application procedure with a bank or credit union employee, explaining the purpose of the loan, and demonstrating ability to repay. Because of the costly application procedure and the potential embarrassment of being turned down, these loans were generally small and went only to the most creditworthy customers.[4] This pattern began to change with the introduction of credit cards in 1966, since credit cards provided unsecured lines of credit that consumers could use at any time for any purpose. The earliest credit cards were issued by banks where consumers had their checking or savings accounts. Because most states had usury laws that limited maximum interest rates, banks offered credit cards only to

[4] Consumers during this period could also obtain installment loans from stores and car dealers to purchase durable goods and cars. These loans went to less-creditworthy borrowers and often had high interest rates and fees (Caplovitz, 1974).

the most creditworthy consumers, and card use therefore grew only slowly. But after the *Marquette* decision in 1978, credit card issuers could charge higher interest rates, and they expanded in states where low interest rate limits had previously made lending unprofitable.

Over time, the development of credit bureaus and computerized credit scoring models changed credit card markets, because lenders could obtain information from credit bureaus about individual consumers' credit records and could therefore offer credit cards to consumers who had no prior relationship with the lender. Lenders first offered credit cards to consumers who applied by mail, and then began sending out pre-approved card offers to lists of consumers whose credit records were screened in advance. These innovations reduced the cost of credit both by eliminating the face-to-face application process and by allowing lenders to expand nationally, which increased competition in local credit card markets. From 1977 to 2001, the proportion of U.S. households having at least one credit card rose from 38 to 76 percent (Durkin, 2000). Over the same period, revolving credit increased from 16 to 37 percent of nonmortgage consumer credit, which means that credit card loans gradually replaced other forms of consumer credit.

This shift from installment to revolving loans meant dramatic changes in the terms of consumer debt. Secured and installment loans typically carried fixed interest rates and fixed repayment schedules. Credit card loans, in contrast, allow lenders to change the interest rate at any time and allow debtors to choose how much they repay each month, subject to a low minimum repayment requirement. Consumers who repay in full each month use credit cards only for transacting; they receive an interest-free loan from the date of the purchase to the due date of the bill. In contrast, consumers who repay less than the full amount due each month use credit cards for both transacting and borrowing; they pay interest from the date of purchase. If borrowers pay late or exceed their credit limits, then lenders raise the interest rate to a penalty range and impose additional fees.

Credit card issuers compete heavily for new customers by mailing out unsolicited, pre-approved credit card offers: in 2001, the average U.S. household received 45 of these offers (Bar-Gill, 2004). Over time, competition among issuers has led them to offer increasingly favorable introductory terms and increasingly onerous post-introductory terms. The favorable introductory terms include zero annual fees, low or zero introductory interest rates on purchases and balance transfers, and rewards such as cash back or frequent flier miles for each dollar spent. The favorable introductory terms encourage consumers to accept new cards, while the rewards programs encourage them to charge more on the cards and the low minimum repayment requirements encourage them to borrow. The format of the monthly bills also encourages borrowing, since minimum payments are often shown in large type while the full amount due is shown in small type. Minimum monthly payments are low—typically the previous month's interest and fees plus 1 percent of the principle—which means that debtors who pay only the minimum each month still owe nearly half of any amount borrowed after five years. After the introductory period, terms become much more onerous: the average credit card interest rate is 16 percent, interest rates rise to 24 to 30 percent if debtors pay late, and penalty fees for paying late or exceeding the credit limit are around $35. This pattern of credit card pricing implies that issuers make losses on new accounts and offset their losses with profits on older accounts (Ausubel, 1991, 1997; Bar-Gill, 2004).

Credit card issuers have also expanded their high-risk operations by lending to consumers who have lower incomes, lower credit scores, and past bankruptcy filings. The percentage of households in the lowest quintile of the income distribution who have credit cards rose from 11 percent in 1977 to 43 percent in 2001 (Durkin, 2000; Johnson, 2005). Three-quarters of bankrupts also had at least one credit card within a year after filing (Staten, 1993).

The shift of consumer debt from installment debt to credit card debt, combined with the pattern of credit card pricing, has made consumers' debt burdens much more sensitive to changes in income. When consumers' incomes are high, they are likely to pay their credit card bills in full, and therefore their debt burden is low and they pay little or no interest. But when incomes decline, consumers are likely to pay late or to pay the minimum on their credit cards, so that their debt burdens increase and they pay much more in interest and fees. Although credit cards allow consumers to smooth consumption when their incomes fall, the cost of doing so is extremely high and may cause some debtors to enter a state of ongoing financial distress.

Rational Consumers versus Hyperbolic Discounters

Considerable recent research suggests that consumers fall into two groups based on their attitudes toward saving: rational consumers versus hyperbolic discounters. Rational consumers apply the same discount rate over all future periods. Hyperbolic discounters, in contrast, want to save more starting at some point in the future, but in the present they prefer to consume rather than save (Laibson, 1997). In another context, a hyperbolic discounter can be a person who always wants to start dieting tomorrow, but never today. As credit card loans have become more widely available and borrowing opportunities have increased, the difference between rational consumers and hyperbolic discounters has become more important.

Laibson, Repetto, and Tobacman (2003) found in simulations that hyperbolic discounters borrow more than three times as much as rational consumers, regardless of whether both types pay the same interest rate or hyperbolic discounters pay higher rates. Applying these results to credit card pricing suggests that rational consumers are likely to use credit cards purely for transacting, while hyperbolic discounters are more likely to use them for borrowing. Also, allowing consumers to choose how much to pay on their credit cards each month makes it likely that hyperbolic discounters will accumulate high levels of credit card debt, because each month they resolve to start paying off their debt, but when the next bill arrives they consume too much and postpone repaying for another month. Because hyperbolic discounters borrow more on their credit cards than rational consumers, they are also more likely to pay high interest rates and penalty fees. Thus, hyperbolic discounters are more likely than rational consumers to accumulate steadily increasing credit card debt.

Gross and Souleles (2002b) provide evidence supporting the hyperbolic discounting model in the context of credit cards—specifically, they find that cardholders increase their borrowing in response to interest rate reductions by more than they reduce their borrowing in response to interest rate hikes. This suggests why lenders offer low introductory interest rates to attract new customers and charge high rates later to their existing cardholders. Again, these results suggest that most debtors in financial distress are likely to be hyperbolic discounters rather than rational consumers who have experienced adverse events.

U.S. Bankruptcy Law

U.S. bankruptcy law has traditionally had two separate personal bankruptcy procedures named, after parts of the bankruptcy law, Chapter 7 and Chapter 13. Under both procedures, creditors must immediately terminate all efforts to collect once debtors file for bankruptcy. Most consumer debt is discharged in bankruptcy, but tax obligations, student loans, alimony, child support obligations, debts incurred by fraud, and some credit card debt incurred shortly before filing are not discharged. Mortgages, car loans, and other secured debts are also not discharged in bankruptcy, but filing for bankruptcy generally allows debtors to delay creditors from foreclosing or repossessing assets. The main difference between the two Chapters is that Chapter 7 only requires bankrupts to repay from their assets and Chapter 13 only requires them to repay from future income. Prior to the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005, debtors were allowed to choose between the two procedures.

Bankruptcy Law Before 2005

The most commonly used procedure before the 2005 law was Chapter 7. Under it, bankrupts must list all of their assets. Bankruptcy law makes some of these assets "exempt," meaning that debtors are allowed to keep them. Asset exemptions are determined by the state in which the debtor lives. Most states exempt debtors' clothing, furniture, "tools of the trade," and some equity in a vehicle. In addition, nearly all states have homestead exemptions for equity in owner-occupied homes, which vary from a few thousand dollars to unlimited in six states, including Texas and Florida. Many states also allow debtors an unlimited homestead exemption if they are married, only one spouse files for bankruptcy, and they own their homes as "tenants by the entirety." Elias (2006) provides a list of asset exemptions by state. Under Chapter 7, debtors must give up all of their nonexempt assets, which are used to repay creditors. But they are allowed to keep all of their post-bankruptcy income.

Under the alternative procedure, Chapter 13, bankrupts are allowed to keep all of their assets, but they must use some of their post-bankruptcy income to repay. Before the 2005 law, there was no predetermined income exemption; instead, debtors who filed under Chapter 13 proposed their own repayment plans. They often proposed to repay an amount equal to the value of their nonexempt assets in Chapter 7 or, if all of their assets were exempt, then they proposed to repay a token amount. Debtors were not allowed to repay less than the value of their nonexempt assets, and since they could file under Chapter 7, they had no incentive to offer more. Only the approval of the bankruptcy judge—not creditors—was required.

The costs of filing for bankruptcy used to be low—about $600 in Chapter 7 and $1,600 in Chapter 13 as of 2001 (Flynn and Bermant, 2002). Compared to other countries (see below), the bankruptcy punishment was also low— bankrupts' names are made public, the bankruptcy filing appears on their credit records for 10 years, and their access to credit falls. In addition, bankrupts were not allowed to file again under Chapter 7 for six years (but they were allowed to file under Chapter 13 as often as every six months).

To induce more bankrupts to file under Chapter 13 and repay from future income, U.S. bankruptcy law used to allow additional debt to be discharged under Chapter 13. Debtors' car loans could be discharged to the extent that the loan principle exceeded the market value of the car. Also, debts incurred by fraud and cash advances obtained shortly before filing could be discharged in Chapter 13, but not in Chapter 7. These features were known as the Chapter 13 "super-discharge." Some bankrupts took advantage of the super-discharge by filing first under Chapter 7, where most of their debts were discharged, and then converting their filings to Chapter 13, where they proposed a plan to repay part of the additional debt covered by the super-discharge. This two-step procedure, known as filing a "Chapter 20," increased debtors' financial gain from bankruptcy relative to filing under either procedure by itself.

Overall, these features made earlier U.S. bankruptcy law very pro-debtor. Because debtors could choose between Chapters 7, 13, and "20", they generally picked the procedure that maximized their gain. Since most debtors have few nonexempt assets, their gain was generally highest under Chapter 7, and around three-quarters of all bankruptcy filings were in fact under Chapter 7 (American Bankruptcy Institute, 2007b). But this choice meant that most bankrupts had no obligation to repay from future income, regardless of how high their incomes were. Debtors with high assets could also gain from filing under Chapter 7, as long as they planned in advance to convert their nonexempt assets to exempt before filing. They could do this by using nonexempt assets to pay down their mortgages, if the additional home equity would be exempt under the state's homestead exemption, or by moving to a state with a high homestead exemption and using their nonexempt assets to buy a house. Debtors that chose Chapter 13 or Chapter "20" generally did so because their gains were even higher than under Chapter 7.

Overall, debtors' right to choose between Chapters 7 and 13 prior to the adoption of the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 meant that their obligation to repay in bankruptcy bore little relationship to their ability-to-pay. Many debtors could gain financially from filing for bankruptcy even if their ability-to-pay was high. Using data from the early 1990s, I estimated that at least one-sixth of U.S. households could gain financially from filing for bankruptcy under pre-BAPCPA Chapter 7, and the proportion increased to as high as one-half if households followed simple strategies to convert their nonexempt assets into exempt assets before filing. The amount debtors gained from filing for bankruptcy also increased as their incomes rose, since higher-income debtors usually had more debt that would be discharged, but they still had no obligation to repay in bankruptcy (White, 1998).

By providing consumers with an easy escape route from debt, U.S. bankruptcy law encouraged consumers to borrow and encouraged debtors to behave strategically and to file for bankruptcy even if they could afford to repay. It also penalized debtors who repay by causing lenders to raise interest rates and reduce credit availability (Gropp, Scholz, and White, 1997). But most bankrupts were not well-off—at least according to the information they provide to the bankruptcy court. In Zhu's (2007) sample of bankruptcy filings in 2003, only 2.5 percent had annual incomes above $70,000.

The Bankruptcy Abuse Prevention and Consumer Protection Act

The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 made several major changes to bankruptcy law. First, it abolished the right of debtors to choose between Chapters 7 and 13. Second, debtors are no longer allowed to propose their own Chapter 13 repayment plans. Third, BAPCPA greatly raised bankruptcy costs by imposing many new requirements on debtors and their lawyers. Let's discuss these in turn.

The first change, abolishing debtors' right to choose between Chapter 7 and Chapter 13, may be the most significant. Under the Bankruptcy Abuse Prevention and Consumer Protection Act, debtors must pass a new "means test" to file under Chapter 7. Debtors qualify for Chapter 7 if their monthly family income averaged over the six months prior to filing is less than the median monthly family income level in their state, adjusted for family size. To get a flavor of what this rule means, median family income for three-person families is currently about $64,000 in California and New York, $75,000 in Massachusetts, and $48,000 in West Virginia. Depending on their debt levels, some debtors are allowed to file under Chapter 7 with average monthly family income that exceeds the state median income level, as long as their monthly "disposable income" (defined below) is no higher than $166 per month. Thus, the 2005 law prevents debtors from taking advantage of

Chapter 7 if their incomes are too high. Debtors who fail the means test must file under Chapter 13 (if they file for bankruptcy at all).

Otherwise, Chapter 7 itself remains essentially unchanged. State-specific asset exemption levels remain in effect, and Chapter 7 filers are only obliged to use their nonexempt assets to repay. But the Bankruptcy Abuse Prevention and Consumer Protection Act imposed new restrictions on some of the strategies that debtors previously used to shelter high assets in bankruptcy. For example, if debtors move to a state with a higher homestead exemption and file for bankruptcy within two years, they must now use their old state's homestead exemption. If debtors purchase a home and then file for bankruptcy within 2½ years, the homestead exemption is capped at $125,000. If debtors convert nonexempt assets into home equity by paying down their mortgages, they must do so at least 3⅓ years before filing—otherwise the additional home equity will not be exempt (Martin, 2006). On the other hand, BAPCPA added a generous new Chapter 7 asset exemption for up to $1,000,000 in tax-sheltered individual retirement accounts (up to $2,000,000 for married couples who file for bankruptcy). Although this new exemption is very generous, few debtors are likely to benefit from it, because they cannot shift large amounts of assets into retirement accounts just before filing.

The second major change under the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 abolishes debtors' rights to propose their own Chapter 13 repayment plans and substitutes a new procedure that determines how much they must repay. Debtors must now use 100 percent of their "disposable income" for five years to repay, where BAPCPA defines disposable income as the difference between debtors' average monthly family income during the six months prior to filing and a new income exemption. The income exemption is based on Internal Revenue Service procedures for collecting from delinquent taxpayers, and for each debtor it determines an allowance for living expenses. Debtors receive an allowance for housing and utilities that varies by metropolitan area; for example it covers expenditures up to a maximum of $986 per month in Charleston, West Virginia, and $1,763 per month in Boston, Massachusetts. They also receive a transport allowance that depends on the number of vehicles the debtor's family owns (up to two) and local gasoline prices. For two-car families, the allowance in Boston is $1,185 per month. Debtors also receive an allowance for food, clothing, and personal care that varies with income. For three-person families, the maximum allowance ranges from $830 per month if family income is below $10,000 per year to $1,368 per month if family income exceeds $70,000 per year. A number of other types of expenditure are added to the income exemption, including the full amount of debtors' expenditures on taxes (except property taxes); mandatory retirement contributions; child support payments; education expenses up to $125/month per child; uninsured health care costs; child care costs; the cost of term-life, disability, homeowners', and health insurance; contributions to charity; contributions to the care of elderly or disabled relatives; the costs of telecommunications and home security; and the cost of repaying secured debt. These components are summed to determine each debtor's income exemption. For details of the means test and the income exemption, see ⟨http://www.usdoj.gov/ust/eo/bapcpa/meanstesting.htm⟩.

Third, the Bankruptcy Abuse Prevention and Consumer Protection Act greatly raised bankruptcy costs. Debtors are now required to take a credit counseling course before they file and a financial management course before their debts are discharged. They must file detailed financial information with the bankruptcy court, including copies of their tax returns for the past four years (which may mean they have to prepare and file tax returns that they never filed in the past). Bankruptcy lawyers must certify the accuracy of all the information filed. Lawyers can be fined and debtors' bankruptcy filings can be dismissed if any of the information is found to be missing, false, or inaccurate. Filing fees have also increased. These new requirements raise debtors' costs of filing to around $2,500 for Chapter 7 and $3,500 for Chapter 13 (Elias, 2006), plus the costs of the two courses and preparation of tax returns.

BAPCPA also abolished the Chapter 13 "super-discharge," increased the amount of credit card debt not discharged in bankruptcy, and increased the length of Chapter 13 repayment plans from as little as three years to a mandatory five years. Finally, it increased the minimum time that must elapse between bankruptcy filings: from six to eight years for Chapter 7 filings; from six months to two years for Chapter 13 filings; and from no minimum to four years for a Chapter 7 filing followed by a Chapter 13. These changes mean that fewer debtors are eligible for bankruptcy at any given time.

Overall, the adoption of the Bankruptcy Abuse Prevention and Consumer Protection Act raised bankruptcy costs, lowered the amount of debt discharged in bankruptcy, lowered the income exemption, raised the amount of post-bankruptcy income that debtors must use to repay, and increased the repayment period. Because debtors no longer have the right to choose between Chapters 7 and 13, those with high incomes no longer gain from filing, since the BAPCPA means test prevents them from using Chapter 7. BAPCPA also lowered asset exemptions for some debtors who have high home equity and raised asset exemptions for a few debtors who have large retirement accounts. Except for the last of these points, all of these changes made U.S. bankruptcy law more pro-creditor.

However, the stringency of these changes should not be exaggerated. Although there is now a maximum income level above which debtors do not gain from filing for bankruptcy, the maximum is quite high and debtors can raise the maximum level by planning strategically before filing. For example, debtors who have experienced job loss or income fluctuations can pass the means test at higher income levels by filing when their average income over the previous six months is minimized. Older debtors can also qualify for Chapter 7 at higher income levels, because Social Security income is excluded from the means test. Entrepreneurs can file under Chapter 7 regardless of how high their incomes are, since debtors who have primarily business debts are allowed to bypass the means test and file under

Chapter 7. Debtors can also pass the means test at higher income levels by changing their expenditures in ways that raise their income exemptions, such as by buying a new car with a car loan or obtaining a new mortgage before filing, or by spending more on child care, insurance, or charitable contributions. In sample calculations, I found that debtors could pass the means test with family incomes at least twice their state's median income level, which means that debtors can still gain financially from filing for bankruptcy even if their family income is in the top decile of the U.S. income distribution (White, 2007). Debtors who fail the means test can also reduce their obligation to repay in Chapter 13 by working less during the six months prior to filing. For example, a reduction in work effort that reduces debtors' average monthly income by $1 for six months prior to filing costs debtors $6, but reduces their repayment obligation in Chapter 13 by $1 per month for five years, or $60.

Overall, abolishing debtors' right to choose between Chapters 7 and 13 and adopting a means test under the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 made debtors' obligation to repay in bankruptcy more closely related to their ability to pay. However, U.S. bankruptcy law still allows debtors to gain from filing for bankruptcy even with high asset and income levels. Despite all the changes under the 2005 legislation, U.S. bankruptcy law remains more pro-debtor than bankruptcy law in any other country. But BAPCPA harms the worst-off debtors, because many of them will be unable to pay the new high costs of filing.

Directions for the Next Bankruptcy Reform

Bankruptcy law was greatly in need of reform before 2005, because it allowed debtors to escape their debts even if they had high assets and high income. But although the 2005 law is barely on the books, it is already possible to discern the outlines of the next set of bankruptcy reforms that will likely be needed.

The difficulty comes in two reinforcing parts: First, although bankruptcy law in the United States remains more pro-debtor than in any other country, some of the debtors who are most in need of bankruptcy-provided debt relief will be unable to file because they cannot afford to pay the higher costs of bankruptcy, including lawyers' fees, filing fees, and the other costs of filing. Second, because BAPCPA changed bankruptcy law in a pro-creditor direction, credit card issuers have responded by expanding the supply of credit. But more credit card loans combined with reduced access to debt relief in bankruptcy seems certain to result in severe financial distress for at least some debtors.

This problem is particularly severe for hyperbolic discounters. As discussed above, hyperbolic discounters tend to be worse off than rational consumers, since they have higher debt, lower assets, and—because they invest less in human capital—lower incomes. In the post-BAPCPA environment, hyperbolic discounters will be more tempted by the up-front rewards from credit card lenders and will borrow even more. But hyperbolic discounters are also likely to ignore the changes in bankruptcy law until after they are in financial distress. At that point, many of them will discover that they are unable to file, either because they cannot afford the high bankruptcy costs or because they have filed under Chapter 7 within the past eight years. Also once in bankruptcy, hyperbolic discounters are more likely to have difficulty providing the detailed information that the new bankruptcy law requires, including four years' of past tax returns that they may have neglected to file. The new BAPCPA education mandates—for credit counseling and financial management—could theoretically help hyperbolic discounters learn to control their spending. But in practice, education is likely to have little effect, since debtors are only required to get it after they are in financial distress and considering bankruptcy.

Any delay by debtors in filing for bankruptcy, even if only for a few months, benefits lenders by giving them additional time to harass debtors with collection calls, persuade them to make payments on credit card loans even though the loans would be discharged in bankruptcy, and collect part of their earnings using wage garnishment. Indeed, early evidence suggests that credit card issuers have benefited from the adoption of the Bankruptcy Abuse Prevention and Consumer Protection Act. Credit card issuers' charge-off rates (losses due to default) fell from around 6 percent before the adoption of BAPCPA to 3 percent afterwards, while their mark-up over costs remained constant. Also, the share prices of publicly-traded third-party debt collectors—firms that buy charged-off credit card loans and attempt to collect from debtors—increased by 17 percent relative to the market when BAPCPA was adopted (Ashcraft, Dick, and Morgan, 2007).

To understand the sorts of reforms that are likely to be useful in the future, let's first review the underlying functions of bankruptcy law and then consider how the more pro-creditor bankruptcy laws of other countries function. With that background, we can then suggest some potentially useful reforms both of bankruptcy law and of complementary laws and rules related to banking and truth-in-lending.

The Underlying Functions of Bankruptcy Law

Bankruptcy law must balance two conflicting functions. First, bankruptcy provides debtors with a form of consumption insurance. Consumers benefit from being able to borrow so that they can smooth consumption over the life cycle, but their future incomes and expenses are uncertain. If income turns out to be particularly low and/or expenses particularly high when the loans come due, then repaying could harm debtors and their families by drastically reducing their consumption. Discharging debt in bankruptcy increases debtors' consumption when it is low and therefore allows them to smooth consumption over states of nature as well as over time. Debtors pay a "premium" in the form of higher interest rates for this implicit consumption insurance, because the insurance raises the risk of default.

The objective of providing consumption insurance has grown in importance over time, as evidenced by the expansion in most countries of the government-provided social safety net. Having a bankruptcy procedure that discharges debt when debtors' ability-to-pay is low increases the overall level of consumption insurance by forcing lenders to provide some private insurance that supplements the social safety net (Posner, 1995). But privately-provided consumption insurance is less needed in countries that have a generous social safety net.

Providing a high level of consumption insurance through bankruptcy law also encourages individuals to become self-employed. Owners of small businesses are personally liable for their business debts (this is often the case even if the business is incorporated), so that they end up with high debts if their businesses fail. Bankruptcy law encourages self-employment if it discharges both business and personal debts in bankruptcy, if it has low bankruptcy costs and punishment, and if it has high exemptions for assets and future income. These provisions encourage even risk-averse individuals to take the risk of going into business because, if their businesses fail, they will not have to use their future income to repay past business debts and they may be able to keep their homes. In Fan and White (2003), my coauthor and I show empirically that more workers choose self-employment in U.S. states that have higher homestead exemptions.

The second objective of bankruptcy is to discourage default by punishing those who file. Debtors who default and file for bankruptcy impose a negative externality on future borrowers, since default causes lenders to ration credit or raise interest rates. A harsh bankruptcy policy reduces this externality by reducing moral hazard on the part of debtors, which can include debtors borrowing without intending to repay, borrowing without considering whether they have the ability to repay, and working less so that their ability-to-pay falls. But punishing bankrupts harshly also increases moral hazard on the part of lenders, because lenders have a stronger incentive to attract borrowers with favorable introductory offers, to lend too much to risky borrowers, and to charge very high fees and post-introductory interest rates.

In the distant past, credit was scarce and expensive, so that the main purpose of bankruptcy law was to punish defaulters and to distribute debtors' assets among creditors.[5] Loans were made only to the most creditworthy borrowers—mainly merchants and landowners—and those who went bankrupt were assumed to have either engaged in fraud or recklessly disregarded their moral obligation to repay. Punishments therefore were severe. Among the punishments that have been used in various countries at various times are the death penalty, selling bankrupts and their children into slavery, forcing bankrupts to become indentured servants of their creditors, putting them in prison, flogging, branding, cutting off their hands, exiling them, and publicly shaming them in various ways (Efrat, 2002). In addition,

[5] Having a procedure to allocate debtors' assets among multiple creditors also reduces creditors' incentives to race to be first to collect. See White (2008) for discussion.

bankrupts were forced to give up all of their assets to repay creditors and there was no debt discharge, so they remained liable to repay for the rest of their lives.

As the cost of lending fell, the death penalty, slavery, prison, and other severe punishments for bankruptcy were abolished in most places, and filing for bankruptcy is no longer considered to be a crime. The U.S. states and England abolished prison as a penalty for default during the nineteenth century. The development of debt discharge and of asset exemptions also reduced the severity of punishment for bankruptcy. A short-lived English bankruptcy statute adopted in 1706 was the first to allow some discharge of debt, and prior to American independence, some of the colonies had procedures for discharging debt. The first U.S. bankruptcy law, adopted in 1800, also allowed for debt discharge if a majority of creditors consented. Asset exemptions appeared as early as the 1790s, when Virginia and other southern states adopted them to protect local landowners from their northern creditors. Exemptions became more widespread and more generous in the nineteenth century, when states in the South and West used them to compete for migrants (Coleman, 1974; Mann, 2002).

Bankruptcy Law Trade-offs in Other Countries

How do different countries make the bankruptcy trade-off between providing consumption insurance to debtors versus punishing default? In comparing bankruptcy policies, it is useful to think of such policies as summed up by seven parameters: 1) the amount of debt discharged, 2) the asset exemption, 3) the income exemption, 4) the fraction of income above the exemption that debtors must use to repay, 5) the length of the repayment obligation, 6) bankruptcy costs, and 7) the bankruptcy punishment. A bankruptcy policy is more pro-debtor if the amount of debt discharged or the exemption levels are higher, or if bankruptcy costs, the bankruptcy punishment, the length of the repayment period, or the fraction of nonexempt income that must be used to repay are lower. Table 2 summarizes these parameters for U.S. personal bankruptcy law both before and after the adoption of BAPCPA. Among other countries, some have no bankruptcy procedure at all, and some allow only business owners and corporations to go bankrupt. Table 3 summarizes bankruptcy law in four countries that allow consumers to file for bankruptcy: France, Germany, Canada, and England/Wales.[6]

All four countries require bankrupts to repay from both assets and post-bankruptcy income, subject to exemptions for each. But the values of the bankruptcy parameters differ considerably across the four countries. France's

[6] China, Turkey, Italy, Mexico, and Argentina are examples of countries that allow only business owners to file for bankruptcy. Chile and the Czech Republic are examples of countries that allow individuals to file for bankruptcy but do not allow the discharge of debt in bankruptcy (Efrat, 2002). In Germany, the first bankruptcy law that allowed individual consumers to have debt discharged in bankruptcy was only adopted in 1999.

Table 2
U.S. Personal Bankruptcy Law before versus after the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005

	Pre-BAPCPA		*BAPCPA*	
	Chapter 7	*Chapter 13*	*Chapter 7*	*Chapter 13*
Types of debt discharged	unsecured debt except student loans, child support obligations, taxes, some credit card debt incurred shortly before filing	more unsecured debt discharged than under Chapter 7	less debt discharged than under pre-BAPCPA Chapter 7	same as under Chapter 7
Asset exemption	varies across states; some states have unlimited homestead exemptions	unlimited	same as pre-BAPCPA, but new restrictions on when debtors can use high homestead exemptions	unlimited
Income exemption	unlimited	varies across debtors	unlimited	sum of three sets of allowances (see text)
Percent of nonexempt income that debtors keep	N/A	0	N/A	100%[a]
Length of repayment obligation from future income	N/A	3–5 years	N/A	5 years
Typical cost of bankruptcy for debtors	$600	$1,600	$1,800–$2,800 plus the cost of educational mandates and tax preparation	$2,700–$3,700 plus the cost of educational mandates and tax preparation
Bankruptcy punishment	repeat filing not allowed for 6 years	repeat filing not allowed for 6 months	repeat filing not allowed for 8 years	repeat filing not allowed for 2 years

Sources: Elias (2006) and Martin (2006).
[a] Under BAPCPA, debtors' are required to use all of their nonexempt income to repay, but income is defined as debtors' average income during the six-month period prior to bankruptcy. This means that the obligation to repay is a fixed dollar amount, so that debtors keep 100 percent of their income above the exemption.

Table 3
Personal Bankruptcy Law in Other Countries

	France	*Germany*	*England and Wales*	*Canada*
Types of debt discharged	all debt remaining at the end of the repayment period	all debt remaining at the end of the repayment period	most unsecured and secured debt discharged; student loans and debt arising from fraud not discharged	unsecured and some secured debt discharged
Asset exemption	modest household goods exempt; no homestead exemption	modest household goods exempt; no homestead exemption	household goods and pensions exempt; homestead exemption is around $2,000	homestead exemptions vary across provinces; the largest is $40,000
Income exemption	$6,000 for singles to $15,000 for family of three per year	$21,000 for couples, up to $38,000 for families per year	"reasonable domestic needs" of bankrupt and family	$21,000 for single person; $40,000 for families of four
Percent of nonexempt income that debtors keep	falls from 95% to 0% when income exceeds $20,000 for singles or $23,000 for family of four	0 in years 1–3, 10% in year 4, and 15% in year 5 if "good behavior"	50–70%	50%
Length of repayment obligation from future income	8–10 years	6 years	up to 3 years	9 months to 3 years
Typical cost of bankruptcy for debtors	zero	$1,500; payment may be deferred[a]	at least $740 for liquidation; $3,600 for repayment plan	from $1,300 to $1,700
Bankruptcy punishment	discharge contingent on debtors' efforts to find/hold a job	discharge contingent on debtors' effort to find/hold a job; no discharge until debtor completes a repayment plan	debtor cannot borrow, manage a business, hold some public offices for 3 years	debtor cannot borrow, manage a business, hold some public offices before discharge

Sources: Ziegel (2007), Kilborn (2004) and (2005), BankruptcyCanada.com, The Insolvency Service (2005), and Ramsay (2003).
Notes: France, Germany, and Canada require that debtors negotiate with creditors and attempt to arrive at a voluntary repayment plan before filing for bankruptcy. In both France and Germany, judges can impose repayment plans if a majority of creditors consents. All figures are in U.S. dollars.
[a] The debtor can pay costs in installments under a six-year plan.

bankruptcy law is the most pro-creditor: exemptions for assets and income are very low; bankrupts must use nearly all of their income to repay; and the repayment obligation lasts for eight to ten years. This means that bankrupts are reduced to a poverty-level standard of living and have little incentive to work for a long period of time. But if they shirk, bankruptcy judges can penalize them by denying the discharge. On the other hand, bankruptcy judges also have the power to soften the procedure by awarding debtors an immediate discharge on the grounds that they cannot repay their debts even if they make a reasonable effort to do so over 10 years. Judges can also discharge additional debt if they feel that lenders made loans to debtors who were already “over-indebted.” Because debtors do not bear any costs of filing, they have an incentive to default on their repayment plans and file for bankruptcy again, since a new filing gives them a new chance of having their debts discharged immediately (Kilborn, 2005). Thus, while French bankruptcy procedure is very pro-creditor, a small percentage of French bankrupts receive a more lenient treatment similar to Chapter 7 in the United States.

Germany’s bankruptcy procedure is similar to France’s but the repayment period is six years rather than eight to ten and the income exemption is higher. Debtors are required to use all of their income above the exemption to repay, but if they exhibit good behavior by working or seeking work, they are allowed to keep 10 percent of their nonexempt income during the fourth year of the repayment plan and 15 percent during the fifth year. All bankrupts in Germany must complete a repayment plan before receiving a discharge, even if their incomes are entirely exempt and they repay nothing (Kilborn, 2004).

Bankruptcy laws in England/Wales and in Canada are more pro-debtor than those in France or Germany. In England/Wales, the income exemption is high enough that only 15 percent of bankrupts are required to have repayment plans, and those that do must only use 30 to 50 percent of their nonexempt income to repay. The repayment period lasts for two or three years. However, Britain imposes shaming punishments on bankrupts, who are barred from borrowing money, managing a business, working as a lawyer, or holding some public offices for three years after filing. In Canada, debtors must use 50 percent of their nonexempt income to repay, and the repayment period lasts between nine months and three years. Like the United States, Canada has homestead exemptions that vary across provinces—they are generally lower than homestead exemptions in the United States, but higher than those in the other countries. Overall, U.S. bankruptcy law remains more debtor-friendly than bankruptcy law in any of the four countries, even after the adoption of BAPCPA.

Adjusting Bankruptcy Law

As a starting point for thinking about adjustments to bankruptcy law, consider a world of rational consumers who borrow only to smooth consumption. These consumers sometimes suffer adverse shocks. The interest rates that they pay for borrowing include a risk premium for the defaults that inevitably occur following adverse events.

In this setting, bankruptcy-provided consumption insurance costs debtors more than its fair price, because debtors not only compensate lenders for default by paying higher interest rates but, in addition, they must pay bankruptcy costs and bear the bankruptcy punishment whenever they file. As a result, if debtors are risk neutral, then they prefer not to have a bankruptcy system at all; while if they are risk-averse, they prefer to have a bankruptcy system and their preferred bankruptcy system is more pro-debtor as the degree of risk-aversion increases. This analysis suggests that if most debtors are risk averse, bankruptcy policy should provide some consumption insurance, and the efficient amount of consumption insurance increases as debtors become more risk averse (Wang and White, 2000). Additional considerations that affect bankruptcy policy are that it should provide a higher level of consumption insurance in countries that want to encourage self-employment and a lower level of consumption insurance in countries that provide more comprehensive social safety nets.

When debtors are hyperbolic discounters, the policy prescription becomes more complex. Remember, hyperbolic discounters have dynamically inconsistent preferences; they prefer to borrow today and start saving tomorrow—but tomorrow never comes. Their preferences concerning bankruptcy are also inconsistent. When hyperbolic discounters focus on their desire to borrow and consume today, they prefer to have no bankruptcy system or a very pro-creditor bankruptcy system, because they can borrow the most under such a system. But if and when hyperbolic discounters focus on their desire to save, they prefer a bankruptcy system that forces them to save by restricting their ability to borrow today. These sophisticated hyperbolic discounters prefer a very pro-debtor bankruptcy system, since lenders ration credit more tightly and may not be willing to lend at all when the bankruptcy system is very pro-debtor. Thus, whether hyperbolic discounters prefer a pro-debtor or pro-creditor bankruptcy system depends on whether or not they recognize their tendency to borrow too much and favor a bankruptcy system that helps them control their own behavior.

A variety of bankruptcy policy parameters have different effects on rational consumers versus hyperbolic discounters. For example, an increase in the asset exemption provides debtors with additional consumption insurance, but only if they have nonexempt assets. Since rational consumers tend to have more assets than hyperbolic discounters, this change mainly benefits rational consumers. Similarly, an increase in the income exemption or a reduction in the proportion of nonexempt income that debtors must use to repay provides additional consumption insurance, but only to debtors who have nonexempt income. If rational consumers tend to have higher incomes than hyperbolic discounters, then these changes also mainly benefit rational consumers.

On the other hand, an increase in the amount of debt discharged in bankruptcy benefits hyperbolic discounters more than it benefits rational consumers, since hyperbolic discounters have more debt. And reductions in bankruptcy costs or in the bankruptcy punishment also benefit hyperbolic discounters more than rational consumers, because hyperbolic discounters file for bankruptcy more often.

Overall, an economically efficient bankruptcy system should have a fairly low asset exemption level, since a higher asset exemption mainly benefits well-off bankruptcy filers. It should also have low bankruptcy costs and a low bankruptcy punishment, since low values of these variables provide additional consumption insurance to the worst-off debtors. The income exemption should be higher if debtors are more risk averse or if debtors' work effort responds more strongly to the exemption level. In general, bankruptcy policy should be more pro-debtor if hyperbolic discounters wish to control their borrowing behavior, since lenders supply less credit under a more pro-debtor bankruptcy policy.

One needed reform is to cut debtors' bankruptcy costs, so that the worst-off debtors can afford to file. This could be done by cutting filing fees, reducing the amount of information that bankrupts must provide, or by eliminating bankruptcy lawyers' liability for false or inaccurate information that bankrupts provide. Another is to eliminate the special treatment of credit card debt that results from charges and cash advances obtained shortly before debtors file—some of which is currently nondischargeable. This special treatment should be eliminated since it gives lenders an inefficiently high incentive to lend to hyperbolic discounters and others who already are heavily in debt. Instead, all credit card debt should be discharged in bankruptcy.

However, bankruptcy policy in general is not very effective in reducing borrowing by hyperbolic discounters, since these debtors are likely to ignore bankruptcy law until after they are in financial distress. Instead, the most effective policies are likely to involve changes in credit market regulation.

Coordinating Bankruptcy with Other Policy Tools

Bankruptcy law and other types of regulation should be coordinated in a combined credit market policy that covers both the borrowing and the repayment stages. Thus, since the U.S. bankruptcy system has shifted in a pro-creditor direction, other types of regulation should also be changed so as to discourage debtors from borrowing to the point that they are likely to file for bankruptcy. But credit market regulation currently requires little of lenders beyond accurate disclosure of loan terms.

One possible reform would be to require credit card lenders to raise their minimum monthly payment levels, so that debtors would be required to repay, say, 10 percent of the amount owed each month rather than the current 1 percent. This change would both reduce the amount of interest that debtors pay and force debtors to reduce their consumption before they accumulate as much debt.[7] Lenders could also be barred from offering rewards programs that encourage additional spending and from marketing to minors and college students. Credit bureaus could also be prohibited from selling information about individual consumers' credit records without their consent, which would reduce or eliminate the practice of lenders mailing out unsolicited card offers.

Truth-in-lending laws could also be extended to require that consumers receive additional information concerning their credit cards. For example, Senator Christopher Dodd introduced legislation in 2004 that would require credit card lenders to inform consumers each month how long it will take to repay their loans if they pay only the minimum amount. Mann (2006) proposed that payment terminals for credit card transactions be modified so that each time consumers use their credit cards, they would be told whether the purchase will trigger a penalty for exceeding the credit limit and how much interest they will pay if the purchase adds to their credit card debt.

Finally, Posner (1995), Rougeau (1996), Bar-Gill (2004), Peterson (2004), and Mann (2006) discuss reintroducing usury limits on interest rates, although they do not all go so far as to advocate this change. While binding usury limits would reduce the amount that hyperbolic discounters can borrow, they might also drive hyperbolic discounters and other risky debtors to borrow from "payday" lenders, pawnbrokers, and rent-to-own stores, some of which charge annual interest rates in the range of 400 to 500 percent.

The unifying theme of these proposals is that when bankruptcy is caused by rational borrowers who suffer adverse events, the issues are fairly straightforward to analyze and to resolve. But when bankruptcy results from overborrowing on the part of hyperbolic discounters that eventually grows into severe financial distress, just moving the rules of bankruptcy in a pro-creditor direction is only a very partial answer. Instead, an appropriate policy response to this kind of overborrowing must both discourage hyperbolic discounters from borrowing too much and penalize lenders who take advantage of hyperbolic discounters' tendency to overborrow.

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[7] Federal regulators do not directly regulate credit card loan terms, but they issue "guidances" to lenders that are generally followed. In 2005, a "guidance" was issued suggesting that credit card lenders raise their monthly minimum payments so that negative amortization could not occur. See Mann (2006) for discussion of proposals to regulate credit card lenders. Many of these proposals are used in the European Union.

References

American Bankruptcy Institute. 2007a. Table titled, "Annual Business and Non-business Filings by Year (1980–2006)." http://www.abiworld.org/AM/AMTemplate.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=35631. (Accessed August 28, 2007).

American Bankruptcy Institute. 2007b. Table titled "Quarterly Non-business Filings by Chapter (1994–2007)." http://www.abiworld.org/AM/AMTemplate.cfm?Section=Home&CONTENTID=48427&TEMPLATE=/CM/ContentDisplay.cfm. (Accessed August 31, 2007).

Ashcraft, Adam, Astrid A. Dick, and Donald P. Morgan. 2007. "The Bankruptcy Abuse Prevention and Consumer Protection Act: Means-Testing or Mean Spirited? http://www.newyorkfed.org/research/staff_reports/sr279.pdf.

Ausubel, Lawrence M. 1991. "The Failure of Competition in the Credit Card Market." *American Economic Review,* 81(1): 50–81.

Ausubel, Lawrence M. 1997. "Credit Card Defaults, Credit Card Profits, and Bankruptcy." *American Bankruptcy Law Journal,* 71(Spring): 249–270.

Bar-Gill, Oren. 2004. "Seduction by Plastic." *Northwestern Law Review,* 98(Summer): 1373.

Barron, John M., Michael E. Staten, and Stephanie M. Wilshusen. 2002. "The Impact of Casino Gambling on Personal Bankruptcy Filing Rates." *Contemporary Economic Policy,* 20(4): 440–45.

Berkowitz, Jeremy, and Richard Hynes. 1999. "Bankruptcy Exemptions and the Market for Mortgage Loans." *Journal of Law and Economics,* 42(2): 809–30.

Caplovitz, David. 1974. *Consumers in Trouble: A Study of Debtors in Default.* New York: The Free Press.

Coleman, Peter J. 1974. *Debtors and Creditors in America.* State Historical Society of Wisconsin.

Domowitz, Ian, and Robert L. Sartain. 1999. "Determinants of the Consumer Bankruptcy Decision." *Journal of Finance,* 54(1): 403–20.

Dranove, David, and Michael L. Millenson. 2006. "Medical Bankruptcy: Myth versus Fact." *Health Affairs* (online edition), 25(2): w74–w83.

Durkin, Thomas. 2000. "Credit Cards: Use and Consumer Attitudes, 1970–2000." *Federal Reserve Bulletin,* September, pp. 623–34.

Efrat, Rafael. 2002. "Global Trends in Personal Bankruptcy." *American Bankruptcy Law Journal,* 76(Winter): 81–110.

Economic Report of the President 2007. 2007. Transmitted to the Congress February 2007, together with the Annual Report of the Council of Economic Advisors. Tables B-77 and B-60. U.S. Government Printing Office. Available at http://www.gpoaccess.gov/eop/index.html.

Elias, Stephen. 2006. *The New Bankruptcy: Will it Work for You?* Nolo Press.

Ellis, Diane. 1998. "The Effect of Consumer Interest Rate Deregulation on Credit Card Volumes, Charge-Offs, and the Personal Bankruptcy Rate." *Bank Trends,* no. 98-05.

Evans, David S., and Richard Schmalensee. 1999. *Paying with Plastic: The Digital Revolution in Buying and Borrowing.* Cambridge: MIT Press.

Fan, Wei, and Michelle J. White. 2003. "Personal Bankruptcy and the Level of Entrepreneurial Activity." *Journal of Law & Economics,* 46(2): 543–68.

Fay, Scott, Erik Hurst, and Michelle J. White. 2002. "The Household Bankruptcy Decision." *American Economic Review,* 92(3): 708–18.

Flynn, Ed, and Gordon Bermant. 2002. "Bankruptcy by the Numbers: A Tale of Two Chapters: Financial Data." *American Bankruptcy Institute Journal,* 21(8), pages 20 and 38.

Gropp, Reint, J. Karl Scholz, and Michelle J. White. 1997. "Personal Bankruptcy and Credit Supply and Demand," *Quarterly Journal of Economics,* 112(1): 217–51.

Gross, David B., and Nicholas S. Souleles. 2002a. "An Empirical Analysis of Personal Bankruptcy and Delinquency." *Review of Financial Studies,* 15(1): 319–47.

Gross, David B., and Nicholas S. Souleles. 2002b. "Do Liquidity Constraints and Interest Rates Matter for Consumer Behavior? Evidence from Credit Card Data." *Quarterly Journal of Economics,* 117(1): 149–85.

Himmelstein, David U., Elizabeth Warren, Deborah Thorne, and Steffie Woolhandler. 2005. "Illness and Injury as Contributors to Bankruptcy." *Health Affairs* (online edition), February 2, vol. 24, pp. w5.63–w5.73.

The Insolvency Service. 2005. *Guide to Bankruptcy.* http://www.insolvency.gov.uk/pdfs/guideanceleafletspdf/guidetobankruptcy.pdf.

Johnson, Kathleen W. 2005. "Recent Developments in the Credit Card Market and the Financial Obligations Ratio." *Federal Reserve Bulletin,* Autumn, pp. 473–86.

Kilborn, Jason J. 2004. "The Innovative German Approach to Consumer Debt Relief: Revolutionary Changes in German Law, and Surprising Lessons for the United States." *Northwestern Journal of International Law and Business,* 24(2): 257.

Kilborn, Jason J. 2005. "La Responsabilisation de l'Economie: What the United States Can Learn from the New French Law on Consumer Indebtedness." *Michigan Journal of International Law,* 26(2): 619.

Laibson, David. 1997. "Golden Eggs and Hyperbolic Discounting." *Quarterly Journal of Economics,* 112(2): 443–77.

Laibson, David, Andrea Repetto, and Jeremy Tobacman. 2003. "A Debt Puzzle." In *Knowledge, Information, and Expectations in Modern Macroeconomics: In Honor of Edmund S. Phelps,* ed. Philippe Aghion et al, 228–66. Princeton University Press.

Lin, Emily Y., and Michelle J. White. 2001. "Bankruptcy and the Market for Mortgage and Home Improvement Loans." *Journal of Urban Economics,* 50(1): 138–62.

Livshits, Igor, James MacGee, and Michele Tertilt. 2006. "Accounting for the Rise in Consumer Bankruptcies." http://economics.uwo.ca/faculty/livshits/BankruptcyRise.pdf.

Mann, Bruce H. 2002. *Republic of Debtors.* Harvard University Press.

Mann, Ronald J. 2006. *Charging Ahead: The Growth and Regulation of Credit Card Markets.* Cambridge University Press.

Mann, Ronald J. 2007. "Bankruptcy Reform and the 'Sweat Box' of Credit Card Debt." *University of Illinois Law Review,* 2007:1, 375–404.

Martin, Nathalie. 2006. *J. K. Lasser's The New Bankruptcy Law & You.* Wiley & Sons.

Moss, David A., and Gibbs A. Johnson. 1999. "The Rise of Consumer Bankruptcy: Evolution, Revolution, or Both?" *American Bankruptcy Law Journal,* 73(Spring): 311.

National Foundation for Credit Counseling. 2006. "Consumer Counseling and Education under BAPCPA." Report available at http://www.nfcc.org/NFCC_Year_One_Bankruptcy_Report2.pdf.

Peterson, Christopher L. 2004. *Taming the Sharks: Towards a Cure for the High-Cost Credit Market.* Akron, Ohio: University of Akron Press.

Posner, Eric A. 1995. "Contract Law in the Welfare State: A Defense of the Unconscionability Doctrine, Usury Laws, and Related Limitations on the Freedom to Contract." *Journal of Legal Studies,* 24(2): 283–319.

Ramsay, Iain. 2003. "Bankruptcy in Transition: The Case of England and Wales." In *Consumer Bankruptcy in Global Perspective,* ed. Johanna Niemi-Kiesilainen, Ian Ramsay, and William C. Whitford, 205–25. Oxford: Hart Publishing.

Rougeau, Vincent D. 1996. "Rediscovering Usury: An Argument for Legal Controls on Credit Card Interest Rates." *Colorado Law Review,* 67(9): 1–46.

Staten, Michael. 1993. "The Impact of Post-Bankruptcy Credit on the Number of Personal Bankruptcies." Working Paper 58, Credit Research Center, Krannert School of Management, Pursue University.

Sullivan, Teresa, Elizabeth Warren, and Jay Lawrence Westbrook. 1989. *As We Forgive Our Debtors.* New York, NY: Oxford University Press.

Sullivan, Teresa, Elizabeth Warren, and Jay Lawrence Westbrook. 2000. *The Fragile Middle Class: Americans in Debt.* Yale University Press.

U.S. Census Bureau, Current Population Reports. Various years. http://www.census.gov/population/www/socdemo/hh-fam.html.

U.S. Census Bureau. Various years. *Statistical Abstract of the United States.*

U.S. Department of Justice, U.S. Trustee Program. 2007. Webpage titled "Means Testing: Census Bureau, IRS DATA and Administrative Expenses Multipliers." http://www.usdoj.gov/ust/eo/bapcpa/meanstesting.htm. (Accessed September 13, 2007).

Wang, Hung-Jen, and Michelle J. White. 2000. "An Optimal Personal Bankruptcy System and Proposed Reforms." *Journal of Legal Studies,* 29(1): 255–86.

White, Michelle J. 1998. "Why Don't More Households File for Bankruptcy?" *Journal of Law, Economics, and Organization,* 14(2): 205–31.

White, Michelle J. 2008. "Bankruptcy Law." In *Handbook of Law and Economics,* ed. A. M. Polinsky and Steven Shavell, pp, 1016–72. Elsevier. (National Bureau of Economic Research Working Paper 11536, July 2005.)

White, Michelle J. 2007. "Abuse or Protection: The Economics of Bankruptcy Reform under BAPCPA." *University of Illinois Law Review,* 2007(1): 275–304.

Zhu, Ning. 2007. "Household Consumption and Personal Bankruptcy." Available at SSRN: http://ssrn.com/abstract=971134.

Ziegel, Jacob. 2007. "What Can the United States Learn from the Canadian Means Testing System?" *University of Illinois Law Review,* 2007(1): 195–240.