

American Law & Economics Association Annual Meetings

Year 2007

Paper 49

Personal Bankruptcy Law: Abuse Prevention versus Debtor Protection

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March 2007



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Introduction

From 1980 to 2004, the number of bankruptcy filings in the US increased 5-fold, from 288,000 to 1.5 million per year. By 2004, Americans were more likely to file for bankruptcy than to graduate from college, get divorced, or be diagnosed with cancer. During the same period, revolving debt per household (mainly credit card debt) also increased 5-fold in real terms, rising from 3.2% to 12.5% of U.S. median family income. As of 2004, households that held credit card debt had an average revolving debt level of \$15,600 and the average bankruptcy filer had credit card debt of \$25,000.¹ Table 1 shows revolving debt and bankruptcy filings from 1980 to 2006.

But in 2005, Congress adopted a major bankruptcy reform, the “Bankruptcy Abuse Prevention and Consumer Protection Act” (BAPCPA), that made bankruptcy much less debtor-friendly and changed the bankruptcy/revolving debt relationship. Personal bankruptcy filings surged to two million in 2005 as debtors rushed to file under the old law and then fell to an annual rate of less than 600,000 during the first three quarters of 2006. However the level of revolving debt per household continued to rise, at a nominal rate of 5.5% during the first year that BAPCPA was in effect.

This paper examines the economics of bankruptcy law and the bankruptcy-debt relationship. Reductions in the cost of lending since the 1970’s caused lenders to greatly increase the supply of credit cards and credit card loans and many consumers responded by borrowing heavily. But prior to 2005, bankruptcy law provided debtors with an easy escape route and many ended up having their credit card and other debts discharged in bankruptcy. The adoption of BAPCPA made the escape route much less attractive for debtors by greatly increasing the costs of filing and by forcing some debtors to repay from post-bankruptcy earnings. But making bankruptcy law less debtor-friendly will not solve the problem of consumers borrowing too much. This is because lenders have an incentive under BAPCPA to offer yet more credit cards and larger lines of credit. The combination of higher credit availability and more costly bankruptcy harms the worst-off debtors, while doing little to discourage debtors from borrowing too much in the first

¹ Average debt of households that hold credit card debt is calculated assuming that 76% of households have credit cards and 63% of cardholders have credit card debt (Johnson, 2005, and Laibson et al, 2003). Debt of households in bankruptcy is based on a sample of filings in 2003 (Zhu, 2006).

place. The paper considers the characteristics of an optimal bankruptcy system, discusses the changes in U.S. bankruptcy law under BAPCPA, and explores the interaction of bankruptcy policy with bank regulation and truth-in-lending rules. I argue that a less debtor-friendly bankruptcy policy should be accompanied by regulatory changes that penalize lenders for supplying too much credit.

Objectives of bankruptcy

Economists view bankruptcy as balancing two conflicting functions. The first is to provide debtors with consumption insurance by discharging some of their debt when ability-to-pay is low. Consumers benefit from being able to borrow so that they can smooth consumption over the life cycle, but their income and expenses are subject to uncertainty. If income turns out to be particularly low and/or expenses particularly high when the loans come due, then repaying could cause harm by drastically lowering consumption. Families could become homeless if debtors cannot pay rent, illnesses could turn into disabilities if debtors cannot pay for medical care, debtors may quit their jobs and move in order to avoid their creditors, and their children may drop out of school in order to work, leading to lower earnings as adults. Discharging debt in bankruptcy increases debtors' consumption when it is low and therefore allows them to smooth consumption both over states of nature and over time.

The second function 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 may cause lenders to raise interest rates and/or ration credit. Punishing default therefore reduces debtor moral hazard, including 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 also increases lender moral hazard, including lending too much and charging distressed debtors very high interest rates.

Historically, the punishment objective was the most important. Most debtors were merchants or landowners and those who went bankrupt were assumed to have either

engaged in fraud or recklessly disregarded their moral obligation to repay. Punishments used in various countries at various times have included the death penalty, selling bankrupts and their children into slavery, putting bankrupts into prison, flogging, branding, and cutting off bankrupts' hands, exiling them, and publicly shaming them in various ways (Efrat, 2002). In addition, bankrupts were forced to give up all of their assets to repay creditors and there was no debt discharge, so bankrupts remained liable to repay for the rest of their lives.

From an economic standpoint, the severity of past punishment for bankruptcy seems difficult to understand. One possibility is that merchants' promises to pay were used as money, so that trade depended on merchants honoring these promises. Default by any merchant could lead to panics that threatened the trading system and disruption of trade could harm the entire community. These factors suggest that, as money gradually replaced promises to pay and the cost of lending fell, economically efficient penalties for bankruptcy became less severe. In fact, debtors' prisons and other severe punishments were abolished during the early 19th century and filing for bankruptcy is no longer considered a crime. The development of debt discharge and of asset exemptions also reduced the severity of punishment for bankruptcy. Prior to independence, some of the American colonies had procedures for discharging debt and the short-lived U.S. bankruptcy law of 1800 allowed for discharge of debt if a majority of creditors consented. As early as the 1790's, southern states such as Virginia adopted exemptions that protected local landowners from their northern creditors and, in the 19th century, states in the south and west competed for migrants by adopting generous exemptions.²

But shaming punishments for bankruptcy are still widely used. Britain bars bankrupts from holding certain public offices, practicing as a lawyer, or borrowing money for a period of time after filing. In the US, bankrupts' names are made public and the bankruptcy filing appears on their credit records for 10 years. As a result, their access to credit is reduced and employers will not hire them for some types of jobs.

² For discussion of bankruptcy history and the relationship between the legal treatment of debtors in default versus in bankruptcy, see Coleman (1974) and Mann (2002).

In contrast, the objective of providing consumption insurance has become more important over time. While governments now provide consumption insurance publicly through their social safety net programs, having a bankruptcy procedure that discharges debt when debtors' ability-to-pay is low forces private lenders to share the cost (Posner, 1995).³

Credit card markets⁴

Until the 1960's, consumer credit generally took the form of mortgages or installment loans from banks or credit unions. These loans were used to purchase homes and durable goods such as cars, furniture and appliances and the lender took a security interest in the asset. 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. Consumers could also obtain installment loans for purchases of non-durable goods, but 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 credit-worthy customers. This 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, lenders offered credit cards only to the most creditworthy consumers and card use therefore grew only slowly. But in 1978, a decision by the U.S. Supreme Court effectively abolished state usury laws. This allowed credit card issuers to charge higher interest rates and to expand in states where low interest rate limits had previously made lending unprofitable.

Over time, the development of credit bureaus and computerized credit scoring

³ A third objective of bankruptcy is to allocate debtors' assets among multiple creditors, thereby reducing creditors' incentive to race to be first to collect. This objective is less important in the personal than the corporate bankruptcy context, since the cost of the race to be first is that assets may be liquidated when they should be saved, but individual debtors' main asset is their human capital which can no longer be liquidated in bankruptcy. See White (2007) for discussion.

⁴ See Ausubel (1997), Evans and Schmalensee (1999), Moss and Johnson (1999), and R. Mann (2006) for discussion and history of credit cards.

models changed credit card markets by allowing issuers to expand from local to national operation. This is because, by checking individual consumers' credit records, lenders could 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 later began to send out pre-approved credit card offers to lists of consumers whose credit records were screened in advance. These innovations reduced the cost of credit by eliminating the face-to-face application process and by introducing greater competition to credit card markets. From 1977 to 2001, the proportion of U.S. households having at least one credit card rose from 38% to 76% (Durkin, 2000). Over the same period, revolving credit increased from 14% to 38% of total non-mortgage consumer credit, which means that credit card loans replaced most installment loans and loans secured by durable goods other than cars and houses.

This shift from installment to revolving loans meant dramatic changes in the terms of consumer debt. Secured and installment loans carry fixed interest rates and fixed repayment schedules; while credit card loans have variable interest rates and variable repayment schedules. Lenders have the right to change the interest rate at any time and debtors choose how much to repay each month, subject to the requirement that they make a low minimum payment. Another important feature of credit cards is that consumers can use them exclusively for transacting--by paying the full amount due each month, or for transacting plus borrowing--by paying less than the full amount due. Consumers who use credit cards only for transacting receive an interest-free loan from the date of the purchase to the due date of the bill, while those who borrow pay interest from the date of purchase. In addition if consumers pay late or borrow close to their credit limits, then lenders raise the interest rate to a penalty range. Lenders also charge extra fees when debtors pay late or exceed their credit limits.

Credit card issuers compete heavily for new customers. This has important effects on credit card pricing, since it means that issuers make losses on new accounts and offset these losses with profits on older accounts. Issuers compete for new accounts by mailing out unsolicited, pre-approved credit card offers--in 2001, the average U.S. household received 45 of these offers (Bar-Gill, 2004). Issuers encourage consumers to accept new credit cards by offering favorable introductory terms, including zero annual fees, cash

back or frequent flier miles, and low or zero introductory interest rates on purchases and balance transfers. Once consumers accept new cards, the rewards programs encourage them to spend more and low minimum monthly payments encourage them to borrow. The format of the monthly bills also encourages consumers to borrow by prominently featuring the minimum payment rather than the full amount due. Minimum monthly payments are low--typically the previous month's interest and fees plus one 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, credit card terms are much more onerous: the average interest rate is 16%, interest rates rise to 24 to 30% if debtors pay late, and penalty fees for late payment and exceeding the credit limit are around \$35. Over time, competition among credit card issuers has led to increasingly generous introductory terms and increasingly onerous post-introductory terms.

Issuers have also expanded their high-risk operations over time, 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% in 1977 to 43% in 2001 (Durkin, 2000, and Johnson, 2005). A study in the early 1990's found that three-quarters of bankruptcy filers had at least one credit card within a year after their bankruptcy filings (Staten, 1993).

The pattern of credit card pricing harms consumers whose incomes are uncertain, since it makes their consumption more variable than their incomes. When consumers' incomes turn out to be high, they are likely to pay their credit card bills on time and in full, so that they pay little in interest or fees. But when their incomes turn out to be low, they are likely to pay late and pay little, causing them to incur penalties and be charged high interest rates. This means that when consumers' incomes decline, their consumption declines by more and they are more likely to be in financial distress.

Consumer behavior and hyperbolic discounting

Now consider two alternative models of consumer behavior--the rational consumer model and the hyperbolic discounting model. Rational consumers (exponential

discounters) discount consumption t periods in the future by d^t , where $0 < d \leq 1$. In contrast, hyperbolic discounters have a stronger preference for present over future consumption and they discount consumption t periods in the future by bd^t , where $0 < b < 1$. Hyperbolic discounters also have dynamically inconsistent preferences: in period 0 they discount consumption in period 2 relative to period 1 at the rate d , but when in period 1 arrives they discount consumption in period 2 relative to period 1 more strongly at the rate bd . This means that hyperbolic discounters would like to reduce their future consumption in order to save more, but in the present they always prefer to consume rather than save (Laibson, 1997). One interpretation of hyperbolic discounting is that the very young have an absolute preference for present over future consumption, i.e., $b = 0$; while older and more educated consumers generally learn that foregoing present consumption can increase future consumption, so that they have positive values of b .

Prior to the development of credit cards, the difference between the behavior of rational consumers and hyperbolic discounters was less important, because consumers' borrowing opportunities were limited. While consumers could borrow to buy cars or furniture, they rarely borrowed to buy clothes or vacations or restaurant meals. The growth of credit cards allowed both types of consumers to shift additional consumption from the future to the present by borrowing, but hyperbolic discounters responded by borrowing more than rational consumers. Thus rational consumers are likely to use credit cards mainly for transacting, but hyperbolic discounters use them to borrow. Variable credit card payment schedules also mean that hyperbolic discounters are likely to accumulate high credit card debt, because each month they resolve to start paying off their debt, but when next bill arrives they decide to postpone repaying for another period. Thus their debt is likely to increase steadily over time.⁵

Hyperbolic discounters are also harmed by the pattern of credit card pricing. Since they borrow more than rational consumers, they are more likely to pay high credit card interest rates and penalty fees, while rational consumers are likely to receive interest-free

⁵ See Ausubel (1999) and Gross and Souleles (2002) for discussion of empirical evidence supporting the hyperbolic discounting model in the context of credit cards.

loans. As a result, hyperbolic discounters have lower income net of their credit card bills than rational consumers, even when the two groups of consumers have the same incomes. Further, as credit card interest rates rise, hyperbolic discounters' net incomes fall relative to rational consumers'. This means that hyperbolic discounters are more likely to be in financial distress than rational consumers and their financial distress is likely to be deeper. The higher are credit card interest rates and penalty fees, the more valuable the bankruptcy system is to both types of debtors, but particularly to hyperbolic discounters.

There are a number of possible variations on both models of consumer behavior. Either type may be risk averse or risk neutral and either type may behave strategically so as to increase the gain from filing for bankruptcy.

Optimal personal bankruptcy law

Suppose consumers are either rational or are hyperbolic discounters. Both types borrow in period 0 and must repay in period 1. Assume that lenders can identify individual consumers' types in period 0--based on information in their credit records--and they adjust the loan terms accordingly. Lenders must earn at least the opportunity cost of funds to be willing to lend to each type of consumer. Hyperbolic discounters are assumed to borrow more than rational consumers at any interest rate.⁶

In period 1, both types of consumers must decide whether to file for bankruptcy. Consider the following bankruptcy procedure (which is typical of many countries but differs from U.S. bankruptcy law in a number of respects). When debtors file, an automatic stay stops creditors' efforts to collect except through the bankruptcy process, which means that creditors can no longer make collection calls or garnishee debtors' wages. Debtors must provide information to the bankruptcy court concerning their assets, liabilities and income. They must also pay bankruptcy costs, which include court costs, lawyers' fees, and the costs of providing information to the bankruptcy court. Debtors also bear the cost of the bankruptcy punishment. At some point in the bankruptcy process, part or all of debtors' unsecured debt is discharged. (Secured debt is

⁶ Laibson et al (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.

unaffected by bankruptcy.) Debtors must repay the non-discharged portion of the debt in period 1 and they may also have an obligation to repay part of the discharged debt. Bankruptcy law specifies an exemption for debtors' period 1 assets and requires that they use all of their assets above the exemption to repay. It also specifies an exemption for debtors' income and requires them to use some fraction of their period 2 income above the exemption to repay. The obligation to repay from future income lasts for a specified number of years and period 2 is assumed to cover the entire repayment period. A bankruptcy official collects debtors' non-exempt assets and income and distributes them to creditors.

The bankruptcy policy parameters therefore consist of the amount of debt discharged, the asset exemption, the income exemption, the fraction of debtors' non-exempt future income that must be used to repay, the length of the repayment obligation, the level of bankruptcy costs, and the bankruptcy punishment. I refer to bankruptcy policy as more pro-debtor if the amount of debt discharged or the exemptions increase, or if bankruptcy costs, the bankruptcy punishment, the length of the repayment period, or the fraction of non-exempt income that must be used to repay fall.

The values of the bankruptcy parameters differ considerably across countries. (See table 2 for characteristics of personal bankruptcy systems in several countries.) In France, exemptions for assets and income are both very low, debtors must use 100% of their non-exempt income to repay, and the repayment obligation lasts for at least 8 years. This means that debtors in bankruptcy are reduced to a poverty-level standard of living and have little incentive to work more than a minimal amount for a long period of time. However, bankruptcy officials in France can recommend discharging additional debt if they feel that lenders made loans to debtors who were already "over-indebted." In Germany, bankruptcy law is slightly more pro-debtor than in France and, in addition, debtors who meet the terms of their repayment plans are rewarded by having an additional 25% of their debt discharged. In Canada, exemptions are similar to those in Germany, but debtors are obliged to use only 50% of their non-exempt income for as little as 9 months to repay. In the U.S. prior to 2005, the income exemption was unlimited, so that debtors in bankruptcy had no obligation to repay from future income and, in addition, few debtors were obliged to repay from assets.

Now consider debtors' bankruptcy decisions. Suppose debtors' period 1 income is uncertain, but the uncertainty is resolved before they make their filing decisions. If debtors do not file for bankruptcy, then suppose they must repay their debt in full in period 1. In this situation, debtors' gain from filing is the value of debt discharged in bankruptcy and their costs of filing are the sum of bankruptcy costs plus the cost of the bankruptcy punishment plus the amount that debtors must repay from assets and future income. Debtors gain financially from filing if the gain exceeds the costs. (If debtors are obliged to repay only part of the debt outside of bankruptcy, then their gain from filing is the difference between the amount they must repay outside of bankruptcy versus in bankruptcy, rather than the value of debt discharged in bankruptcy.) Whether debtors are risk averse or risk neutral has little effect on their bankruptcy decisions.⁷

Figure 1 shows debtors' assets on the horizontal axis and their period 2 income on the vertical axis. For given levels of the bankruptcy policy variables and a given level of debt, the enclosed area is the asset/income region in which debtors gain from filing. Outside this area, they avoid bankruptcy. The bankruptcy system provides debtors with consumption insurance, because they file only when their asset/income combination is low and filing raises their consumption level. But because the bankruptcy system causes lenders to raise interest rates, debtors' consumption outside of bankruptcy falls. The more pro-debtor the bankruptcy system is, the larger is the bankruptcy region, the more likely debtors are to file, and the more consumption insurance bankruptcy provides. Also as debtors borrow more on credit cards, their gain from filing increases because more debt is discharged, so that the size of the bankruptcy region increases.⁸ If debtors are risk averse, a more pro-debtor bankruptcy system causes them to borrow more by reducing the uncertainty they face.

How do hyperbolic discounters' bankruptcy decisions differ from those of rational consumers? Suppose both types have the same income and assets, but hyperbolic discounters borrow more in period 0 and pay more in interest and penalty fees. This means that the amount they must repay outside of bankruptcy is higher and the amount of

⁷ This is because debtors decide whether to file after learning their period 1 income and the obligation to repay from period 2 income (if any) either reduces the risk they face in period 2 or leaves it unaffected.

⁸ Lenders have an incentive to lend too much, because each individual lender ignores the effect of its loan on the probability of debtors filing for bankruptcy and the amount repaid to other lenders.

debt that is discharged in bankruptcy is higher, both of which increase their gain from filing. In addition, if hyperbolic discounters have lower income or assets than rational consumers, then their obligation to repay in bankruptcy is smaller and this also increases their gain from filing. Finally, filing for bankruptcy defers debtors' obligation to repay in bankruptcy from period 1 until period 2, which is particularly attractive to hyperbolic discounters. All of these differences make hyperbolic discounters' bankruptcy gain region larger, so they file for bankruptcy more often.

Now turn to the determinants of optimal bankruptcy policy and suppose for the moment that all consumers are rational. Bankruptcy-provided consumption insurance costs debtors more than its fair price, because debtors compensate lenders for default by paying higher interest rates and, in addition, they must pay bankruptcy costs and bear the bankruptcy punishment whenever they file. As a result, risk-neutral debtors prefer not to have a bankruptcy system at all, while risk-averse debtors gain from having a bankruptcy system and their preferred bankruptcy system is more pro-debtor if they are more risk averse. This suggests that the optimal bankruptcy policy provides an intermediate level of consumption insurance (Wang and White, 2000). In addition, since bankruptcy and the social safety net are substitutes in providing consumption insurance, countries that provide a more comprehensive social safety net should have less pro-debtor bankruptcy policies.

How does the optimal bankruptcy policy differ when debtors are hyperbolic discounters versus rational consumers? Because hyperbolic discounters borrow more than rational consumers and pay higher interest rates, they gain more from having bankruptcy-provided consumption insurance. Also, if hyperbolic discounters are poorer than rational consumers, they gain more from bankruptcy-provided consumption insurance. These factors suggest that the optimal bankruptcy policy is more pro-debtor when more debtors are hyperbolic discounters. However since hyperbolic discounters have dynamically inconsistent preferences, their preferences concerning bankruptcy may change depending on whether they are borrowing or repaying in the current period. For example, suppose lenders respond to a more pro-debtor bankruptcy policy by rationing credit. This makes hyperbolic discounters worse off in period 0 when they borrow and, as a result, they may prefer a more pro-creditor bankruptcy policy. But in period 1 when

they must repay, they prefer a more pro-debtor bankruptcy policy. Another possibility is that rational consumers cross-subsidize hyperbolic discounters in the loan market, because creditors cannot identify all hyperbolic discounters when they lend. Cross-subsidization raises the interest rates paid by rational consumers and increases the cost to them of bankruptcy-provided consumption insurance. It therefore causes rational consumers to prefer a more pro-creditor bankruptcy system and it may have the opposite effect on hyperbolic discounters.

Several additional considerations affect the optimal values of particular bankruptcy policy variables. Suppose debtors' assets or incomes vary, but they are otherwise identical. Then an increase in the asset exemption provides additional consumption insurance, but only to debtors whose assets are above the exemption. Since rational consumers are likely to have higher assets than hyperbolic discounters, this change mainly benefits rational consumers. Similarly, an increase in the income exemption or a reduction in the proportion of non-exempt income that debtors must use to repay provides additional consumption insurance, but only to debtors whose income exceeds the exemption. If rational consumers tend to have higher income than hyperbolic discounters, then these changes also mainly benefit rational consumers. But raising the income exemption and/or lowering the proportion of non-exempt income that debtors must use to repay has the advantage that it reduces the distortion to debtors' post-bankruptcy work incentives, while an increase in the asset exemption has little or no effect on debtors' work incentives. This suggests that the earnings exemption should be higher in relative terms than the asset exemption. Now suppose debt levels vary. Because hyperbolic discounters have higher debt, an increase in the amount of debt discharged benefits them more than it benefits rational consumers. Similarly, reductions in bankruptcy costs or the bankruptcy punishment benefit hyperbolic discounters more than rational consumers, because hyperbolic discounters file for bankruptcy more often. Overall, the optimal bankruptcy system has a fairly low asset exemption level, since a higher asset exemption mainly benefits well-off bankruptcy filers. The optimal bankruptcy system also has low bankruptcy costs and a low bankruptcy punishment, since low values of these variables provide additional consumption insurance to the worst-off filers.

Finally, suppose an additional objective of bankruptcy policy is to reduce borrowing by hyperbolic debtors, since they would prefer to borrow less but find it difficult to control their own behavior. Changes in the bankruptcy policy variables have relatively little effect on how much hyperbolic discounters borrow, because they tend to ignore the bankruptcy system until they are in financial distress. Thus when bankruptcy costs rise or the amount of debt discharged falls, hyperbolic discounters reduce their borrowing by less than rational consumers.⁹ However other aspects of bankruptcy policy could have a bigger impact. One possibility is to vary the amount of debt discharged depending on how much individual debtors have borrowed---an approach used in French bankruptcy procedure. A pre-determined debt schedule could be adopted based on the borrowing behavior of rational consumers at given levels of income and other characteristics. All debt in excess of the scheduled amount would be discharged in bankruptcy and, if a debtor had multiple loans from different creditors, then loans would be ranked in chronological order and the most recent loans would be discharged first. This approach would give lenders an incentive not to lend more to hyperbolic discounters than they lend to otherwise similar rational consumers, since the additional loans would be discharged in bankruptcy more often.

Bankruptcy policy should also be coordinated with other policy tools that affect the supply of credit more directly, including bank regulation of credit card loans and truth in lending laws. These policies are discussed below.

U.S. bankruptcy law prior to BAPCPA

U.S. bankruptcy law differs from the general bankruptcy law just discussed in having two separate personal bankruptcy procedures. Under the most commonly used procedure--Chapter 7--the income exemption is unlimited and bankrupts are obliged to repay only from their non-exempt assets. Under the alternative procedure--Chapter 13--the asset exemption is unlimited and bankrupts were obliged to repay only from their

⁹ In simulations, Laibson et al (2003) found that rational consumers borrow slightly more when a bankruptcy system is introduced, but the borrowing behavior of hyperbolic discounters does not change. (They did not examine the effects of making the bankruptcy system more or less pro-debtor.)

post-bankruptcy income. Prior to BAPCPA, debtors were allowed to choose between the two procedures.

Asset exemptions in the U.S. were (and still 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. Homestead exemptions for equity in owner-occupied homes vary from zero in two states to unlimited in six states, including Texas and Florida. Many other states allow debtors an unlimited homestead exemption if they are married and only one spouse files for bankruptcy or if they put their assets into a trust before filing (see Elias, 2005, for a list of exemptions by state).

There was no pre-determined income exemption prior to BAPCPA; 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 non-exempt assets in Chapter 7 or, if they had no non-exempt assets, then they proposed to repay a token amount. Debtors were not allowed to repay less than the value of their non-exempt 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. This meant that most debtors' financial gain from filing for bankruptcy was the same under both chapters.¹⁰

Most unsecured debts were discharged under both procedures, but tax obligations, student loans, alimony and child support obligations, debts incurred by fraud, and some credit card debt incurred for luxury purchases or cash advances were not. Secured debts were not discharged, but filing for bankruptcy allowed debtors to delay creditors from foreclosing on their homes or repossessing assets. The costs of filing for bankruptcy were low--about \$600 in Chapter 7 and \$1,600 in Chapter 13 as of 2001--and the bankruptcy punishment was also low (Flynn and Bermant, 2002).

There were some special inducements for debtors to file under Chapter 13. Car loans could be partially discharged if the amount owed exceeded the market value of the car. Also, debts incurred by fraud, debts resulting from willful and malicious torts, 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

¹⁰ In several bankruptcy court districts, judges pressured debtors to file under Chapter 13 and to propose much higher repayment amounts. These plans usually failed, forcing debtors to convert their filings to Chapter 7.

debtors filed first under Chapter 7, where most of their debts were discharged, and then converted their filings to Chapter 13, where they proposed a plan to repay some of the additional debt covered by the super-discharge. This two-step procedure, known as filing “Chapter 20,” increased debtors’ financial gain from bankruptcy.

Overall, these features made U.S. bankruptcy law very pro-debtor. Since debtors could choose between Chapters 7, 13, and “20,” they picked the procedure that maximized their gain. Around three-quarters of all bankruptcy filers used Chapter 7 (Flynn and Bermant, 2003), where they could gain from filing even with high incomes and high assets, particularly if they planned for bankruptcy in advance. Figure 2a shows debtors’ bankruptcy gain region prior to the adoption of BAPCPA. Because the bankruptcy gain region had no upper income limit, debtors’ obligation to repay in bankruptcy bore little relationship to their ability-to-pay. Using data from the early 1990’s, I estimated that at least one-sixth of U.S. households could gain from filing for bankruptcy under pre-BAPCPA Chapter 7 and the proportion increased to one-half if households followed simple strategies to shelter additional assets before filing. Debtors’ financial gain from filing for bankruptcy also increased as their incomes rose (White, 1998).

Did U.S. bankruptcy law prior to BAPCPA provide too much consumption insurance? By providing consumers with an easy escape route from debt, U.S. bankruptcy law encouraged rational consumers to borrow more (while hyperbolic discounters would have borrowed heavily under any bankruptcy law). U.S. bankruptcy law also encouraged debtors to behave strategically and file for bankruptcy even when they could afford to repay. But most bankrupts were not well-off, at least according to the information they provide in their bankruptcy filings. In Zhu’s (2006) sample of bankruptcy filings in 2003, only 2.5% had annual incomes above \$70,000. U.S. bankruptcy law also may have penalized debtors who repay by causing lenders to raise interest rates. But because the credit card industry is concentrated, interest rates tend to be sticky and respond little to changes in default rates.¹¹

Another advantage of pro-debtor U.S. bankruptcy law is that it encourages entrepreneurial behavior. Owners of small businesses often are personally liable for their

¹¹ The share of the top four credit card issuers rose from 42% to 66% from 1997 to 2004 (Nader, 2005). Interest rates on credit card loans have been high relative to lenders’ cost of funds since at least the early 1990’s (Ausubel, 1997, and Bar-Gill, 2004).

business debts (even if their businesses are incorporated), so that they end up with high debts if their businesses fail. U.S. bankruptcy law encourages self-employment by allowing owners of failed businesses to have their business and personal debts discharged in bankruptcy, while keeping all of their future income and sometimes their homes (Fan and White, 2003). Bankruptcy law thus may explain in part why self-employment rates are much higher in the U.S. than in countries such as France and Germany.

Explanations for the increase in personal bankruptcy filings

Economists and non-economists have proposed many explanations for why debtors file for bankruptcy and why the U.S. bankruptcy filing rate increased so dramatically between 1980 and 2004. A number of authors have argued that adverse events, such as job loss, divorce, and health problems/high medical costs, are the most important determinants of bankruptcy. Using data from surveys of bankruptcy filers, Sullivan et al (2000) found that 67% of bankruptcy filers gave job loss as a reason for filing and Himmelstein et al (2005) found that 55% gave high medical expenses as a reason for filing.¹² But economists have found mixed results concerning the role of adverse events in bankruptcy. Fay, Hurst and White (2003) found that households were significantly more likely to file if they experienced a divorce or a drop in income in the previous year, but they did not find a significant relationship between bankruptcy filings and job loss or health problems.

In any case, adverse events do not provide a good explanation for the increase in bankruptcy filings, because they have not become more frequent over time. The unemployment rate was 9.7% in 1982, fell to 5.6% in 1990, and since then has fluctuated between 4.0% and 7.5%. 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% in 1980 to 3.9% in 2005. And the

¹² This figure has been criticized as exaggerated, since Himmelstein et al (2005) counted bankruptcy filings as triggered by medical costs whenever debtors reported at least \$1,000 in medical expenses during the previous two years. But the average household with annual income of \$22,000 - \$40,000 spends \$2,250 per year on health care, or \$4,500 over two years. See Dranove and Millenson (2006).

percentage of Americans not covered by health insurance has also remained fairly constant--it was 14.8% in 1985, 15.4% in 1995, and 15.7% in 2004.¹³

The availability of casino gambling is another possible explanation for the increase in bankruptcy filings--casinos existed only in Nevada and New Jersey in 1980 but had spread to 33 states by 2000. Barron et al (2002) found that bankruptcy filing rates were 2.6% 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 were abolished all over the U.S., their model predicts that bankruptcy filings would fall nationally by only 1%.

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 the median income of bankruptcy filers was well below the U.S. median family income level in both the early 1980's and recently. Sullivan et al 's (1989) survey found that the median income of filers in 1981 was 66% of the U.S. median family income level; while Zhu's (2006) survey found that the median income of filers in 2003 was only 45% of the U.S. median family income level. Thus the evidence suggests that the typical bankruptcy filer has become poorer over time, not more middle class.

A number of studies have found a strong relationship between debt levels and bankruptcy filings, using both cross-section and panel data. Using cross-section household data, Domowitz and Sartain (1999) found that households are more likely to file as their credit card and medical debt levels increase. Using a panel dataset of credit card accounts, Gross and Souleles (2002) also found that cardholders are more likely to file as their debt levels increase. Fay, Hurst and White (2003) used a panel dataset of households and found that households are more likely to file for bankruptcy as their financial gain from filing increases, where the financial gain from filing mainly depends on the amount of debt that is discharged in bankruptcy. Since both the Gross and Souleles and Fay et al studies included time dummies, their results suggest that debt is an

¹³ Out-of-pocket medical expenditures are taken from the *Statistical Abstract of the U.S., 2007*, table 120. Data on the percent of the population not covered by medical insurance are taken from *Statistical Abstract*, 1990 and 2007, table 144.

important factor in explaining both who files for bankruptcy at any particular point in time and why bankruptcy filings have increased over time. Ellis (1998) uses the comparison between the U.S. and Canada to argue for the importance of the credit card debt in explaining the increase in bankruptcy filings over time. General credit cards were first issued in 1966 in the U.S. and in 1968 in Canada. In Canada, both credit card debt and bankruptcy filings increased rapidly starting in 1969. In the U.S., usury laws held down the growth of credit cards and bankruptcy filings remained constant throughout the 1970's. But once usury laws were abolished in 1978, both credit card debt and bankruptcy filings increased rapidly.¹⁴ Livshits et al (2006) use simulation methods to examine various explanations for the increase in bankruptcy filings since the early 1980's. They find that only the large increase in credit card debt combined with a reduction in the level of the bankruptcy punishment can explain the increase in bankruptcy filings since the early 1980's. Overall, the increase in credit card debt since 1980 provides the most convincing explanation for the increase in bankruptcy filings in the U.S.

U.S. bankruptcy law under BAPCPA

The most important change under BAPCPA was to abolish debtors' right to choose between Chapters 7 and 13. Instead, debtors must pass a new "means test" in order 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. (Median family income for 3-person families is \$64,000 in California and New York, \$75,000 in Massachusetts, and \$48,000 in West Virginia.) Debtors are also allowed to file under Chapter 7 if their average monthly family income exceeds the state median income level, as long as their monthly disposable income (defined below) is no higher than \$166 per month. Thus BAPCPA

¹⁴ Two additional changes that occurred in the U.S. in 1978 complicate this picture: 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 in bankruptcy filings over time. Mann (2006) documents a similarly close relationship between credit card debt and bankruptcy filings in Australia, Japan, and the U.K.

eliminated the unlimited income exemption in Chapter 7.

Chapter 7 itself remains essentially unchanged. State-specific asset exemption levels remain in effect and Chapter 7 filers are only obliged to use their non-exempt assets to repay. But BAPCPA imposed new restrictions on some of the strategies that debtors previously used to shelter high assets in bankruptcy. 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 non-exempt assets into home equity by paying down their mortgages or renovating their homes, they must do so at least 3 1/3 years or 10 years, respectively, 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 since they cannot shift large amounts of assets into retirement accounts just before filing.

Debtors who fail the means test must file under Chapter 13 if they file for bankruptcy at all. The second major change under BAPCPA is that debtors are no longer allowed to propose their own Chapter 13 repayment plans. Instead they must use 100% 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 under BAPCPA 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 covers their expenditures up to a maximum of \$986 per month in Charleston, WV, and \$1,763 per month in Boston. 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, expenditures up to about \$1,200 per month are covered. Debtors also receive an allowance for food, clothing and personal care that varies with income. For a 3-person family, the maximum allowance ranges from \$830 per month if income is less than \$10,000 per year to \$1,420

per month if income exceeds \$70,000 per year. In addition, the income exemption covers the full amount of debtors' expenditures on taxes (except property taxes), mandatory retirement contributions, child support payments, education expenses up to \$125/month, uninsured health care costs, childcare costs, the cost of term life, disability, homeowners', and health insurance, contributions to charity, contributions to elderly or disabled relatives, the costs of telecommunications and home security, and the cost of repaying secured debt.¹⁵ Adding all of these components results in an income exemption that far exceeds the median family income level in most states.

The third important change is that BAPCPA greatly raised bankruptcy costs by imposing many new requirements on debtors and their lawyers. 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--even if they never filed tax returns. Bankruptcy lawyers must certify the accuracy of all the information filed. Lawyers can be fined and debtors' bankruptcy filings can be dismissed if any information is found to be false or inaccurate. Filing fees have also increased. These new requirements raise debtors' out-of-pocket costs of filing to around \$2,500 for Chapter 7 and \$3,500 for Chapter 13 (Elias, 2005).

BAPCPA also abolished the Chapter 13 "super-discharge" and increased the amount of credit card debt that is not discharged in bankruptcy. It increased the length of Chapter 13 repayment plans from as little as 3 years to a mandatory 5 years. Finally it increased the minimum time that must elapse between successive bankruptcy filings, from 6 to 8 years for Chapter 7 filings, from 6 months to 2 years for Chapter 13 filings, and from no minimum to 4 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 BAPCPA raised bankruptcy costs, lowered the amount of debt discharged in bankruptcy, lowered the income exemption, raised the fraction of post-bankruptcy income that debtors must use to repay, and increased the repayment period. BAPCPA also lowered asset exemptions for some debtors who have high home equity

¹⁵ See www.usdoj.gov/ust/eo/bapcpa/meanstesting.htm for the means test and the income exemption.

and raised asset exemptions for a few debtors who have large retirement accounts.

Except for the latter, all of these changes made U.S. bankruptcy law more pro-creditor.

Figure 2b shows debtors' bankruptcy gain region under BAPCPA. Compared to figure 2a, the maximum asset level at which debtors gain from filing is lower because of the new restrictions on when debtors can use high homestead exemptions. More importantly, there is now a maximum income level above which debtors no longer gain from filing, since the BAPCPA means test forces them to repay from post-bankruptcy income. However the income cutoff for bankruptcy is quite high, particularly for debtors who behave strategically. For example, debtors who have experienced income fluctuations can pass the means test at higher income levels by filing when their average income over the previous six months is minimized. Debtors can also pass the means test by reducing their work effort during the six months prior to filing. Because social security income is excluded from the means test, older debtors qualify for Chapter 7 at higher income levels. Entrepreneurs can file under Chapter 7 regardless of how high their incomes are, since all debtors whose debts are primarily from their businesses 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 buying a car with a car loan or obtaining a new mortgage before filing, or spending more on child care, insurance, or charitable contributions. In sample calculations (White, 2007), 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 level is in the top decile of the U.S. income distribution.

Overall, U.S. bankruptcy law still allows debtors to gain from filing for bankruptcy even with fairly high asset and income levels. Despite all the changes under BAPCPA, 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 bankruptcy costs.

How does BAPCPA affect hyperbolic discounters? As discussed above, these debtors tend to be worse off than rational consumers, since they have higher debt, lower assets, and may have lower incomes. Because BAPCPA changed bankruptcy law in a

pro-creditor direction, credit card issuers responded by expanding the supply of credit and hyperbolic discounters borrowed even more. But while additional debt increases debtors' gain from filing for bankruptcy, many hyperbolic discounters will be unable to file because they cannot afford the costs of filing or because they have filed under Chapter 7 within the past 8 years. Also once in bankruptcy, debtors must complete many forms accurately and provide four years of past tax returns, or else their bankruptcy filings may be dismissed. These requirements are likely to be more onerous for hyperbolic discounters than rational consumers, since hyperbolic discounters are less likely to have filed tax returns in the first place. But 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 and/or to garnishee their wages. If debtors make additional payments on their credit card debt before filing, these payments are pure profit for lenders because the debts will be discharged in bankruptcy. Finally, the BAPCPA education mandates--for credit counseling and financial management--could theoretically help hyperbolic discounters learn to control their spending. But in practice, counseling is likely to have little effect, since debtors are only required to get it after they are in financial distress and considering bankruptcy.

Early evidence suggests that credit card issuers have benefited from the adoption of BAPCPA. Credit card issuers' charge-off rates fell from around 6% before the adoption of BAPCPA to 3% afterwards, while their mark-up over costs has 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% relative to the market when BAPCPA was adopted (Ashcraft, Dick and Morgan, 2006).

Conclusion

Bankruptcy law prior to BAPCPA was in need of reform, because it allowed debtors to escape their debts even if they had high assets and high income. Instituting a "means test" for bankruptcy therefore improved efficiency by making debtors' obligation to repay in bankruptcy more closely reflect their ability-to-pay. But although bankruptcy law in the U.S. remains more pro-debtor than in any other country, BAPCPA harmed low-income debtors and hyperbolic discounters by greatly increasing bankruptcy

costs. The result is that some debtors who are most in need of bankruptcy-provided debt relief will be unable to file because they cannot afford to pay lawyers' fees, filing fees, and the other costs of filing. BAPCPA also made the problem of excessive borrowing by hyperbolic discounters worse, since the changes in bankruptcy law caused lenders to increase credit supply, while hyperbolic discounters are likely to ignore the changes in bankruptcy law until after they are in financial distress.

The analysis suggests that 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 if the bankruptcy system provides less consumption insurance, other types of regulation should be changed so as to reduce the probability of debtors needing bankruptcy to prevent sharp reductions in their consumption levels. One possibility is to discharge additional debt in bankruptcy if lenders have loaned more to debtors than rational consumers with the same characteristics would have borrowed. Other approaches involve changes in bank regulations or truth-in-lending rules. Minimum monthly payment levels on credit card debt could be raised from 1% to, say, 10% of the amount owed. This would both reduce the amount of interest that debtors pay and force debtors to reduce their consumption before they accumulate as much debt. Truth-in-lending laws could also be extended to require that consumers receive additional information at the time they make purchases using credit cards. Mann (2006) proposed that the credit card authorization procedure be modified to inform consumers if the purchase will trigger a penalty for exceeding the credit limit and how much consumers will pay in interest if the purchase adds to their credit card debt. Credit bureaus' sales of information about individual consumers' credit records could also be prohibited or regulated, which would reduce or eliminate the practice of lenders mailing out unsolicited card offers. Finally, a number of law academics have proposed re-introducing usury limits on interest rates, which would cause credit card issuers to limit the amount they lend to the most risky debtors, including many hyperbolic discounters. Of course, policies that reduce credit availability have downside risks, since they may drive hyperbolic discounters to borrow from "payday" lenders, who charge annual interest rates in the range of 400-500%.

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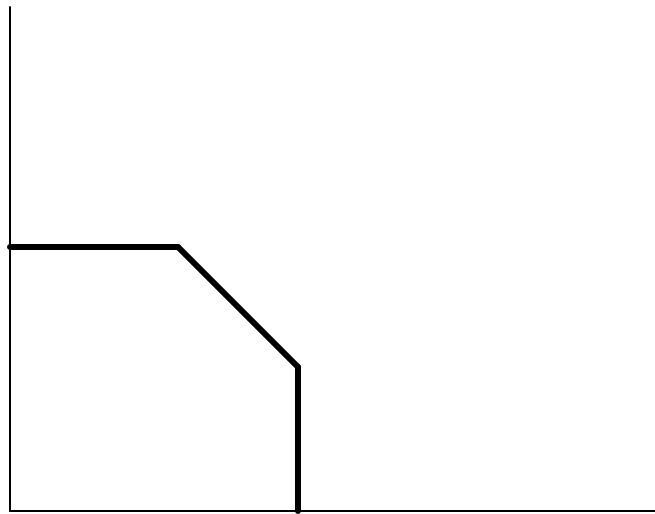
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Figure 1

Income



Assets



bepress Legal Repository

Figure 2a

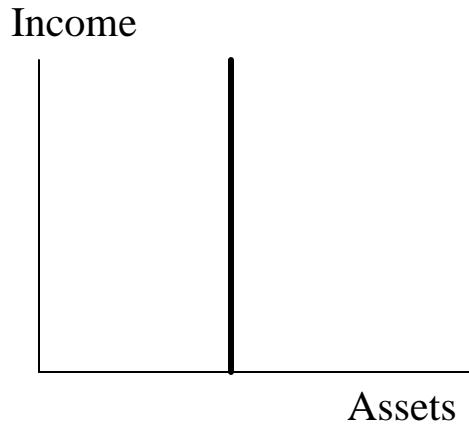
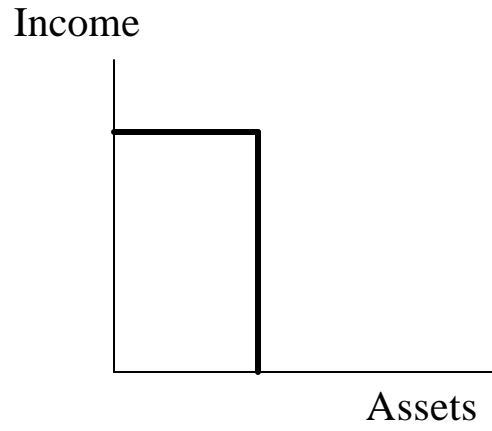


Figure 2b



**Table 1:
Non-Business Bankruptcy Filings and
Consumer Revolving Debt in the U.S.,
1980-2006**

	Non-business bankruptcy filings	Consumer revolving debt per household (in 2005\$)
1980	287,000	1,664
1985	341,000	2,702
1990	718,000	3,943
1995	874,000	5,926
2000	1,217,000	7,555
2001	1,452,000	7,504
2002	1,539,000	7,512
2003	1,625,000	7,412
2004	1,563,000	7,442
2005	2,039,000	7,477
2006	573,000	7,601

Notes: Bankruptcy filings in the U.S. may be by individuals or married couples.

Bankruptcy filings are taken from

<http://www.abiworld.org/AM/AMTemplate.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=35631>.

Table 2: Comparative Personal Bankruptcy Law

	<i>Types of debt discharged</i>	<i>Asset exemption</i>	<i>Income exemption</i>	<i>Percent of income above the income exemption that is exempt</i>	<i>Repayment period</i>	<i>Cost of bankruptcy</i>
France	interest plus all debt remaining at the end of the repayment period;	modest household goods exempt; no homestead exemption	\$6,000 for singles to \$13,000 for family of four per year	falls from 95% to 0% when income exceeds \$20,000 for single or \$23,000 for family of four	8-10 years	0
Germany	25% plus all debt remaining at the end of the repayment period	modest household goods exempt; no homestead exemption	\$21,000 for couples, up to \$38,000 for families per year	0	6 years	intermediate
Canada	unsecured and some secured debt discharged	varies across provinces; largest homestead exemption is \$40,000	\$21,000 for single person; \$40,000 for families of four	50%	9 - 21 months	\$1,600
US— Chapter 7 (pre-BAPCPA)	most unsecured debt plus all debt remaining at the end of the repayment period	varies across states; some have unlimited homestead exemptions	unlimited	100%	--	\$600
US— Chapter 13 (pre-BAPCPA)		unlimited	depends on repayment plan	0	3-5 years	\$1,600

Notes: France, Germany and Canada all require that debtors negotiate with creditors and attempt to arrive at a voluntary repayment plan before filing for bankruptcy. Sources: Ziegel (1999) and (2007), Kilborn (2004) and (2005), and www.bankruptcycanada.com