

Abuse or Protection? Consumer Bankruptcy Reform under ‘BAPCPA’¹

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Last fall, after years of effort and more than \$100 million in lobbying expenditures by the large credit card lenders, Congress passed the “Bankruptcy Abuse Prevention and Consumer Protection Act of 2005” (BAPCPA). The new bankruptcy law followed years of rapid increases in the number of bankruptcy filings--from 341,000 in 1985 to 1,263,000 in 1997, when the earliest predecessor to BAPCPA was introduced in Congress, to more than 1,500,000 per year in the years before BAPCPA went into effect. (See table 1.) While U.S. bankruptcy law was very debtor-friendly prior to BAPCPA, it has become much more pro-creditor today.

It’s not surprising that personal bankruptcy law is controversial, because it balances conflicting objectives of helping debtors in financial distress versus promoting credit availability by protecting creditors. Bankruptcy law provides debtors with consumption insurance by discharging some or all of their debts when their ability-to-pay falls. This increases debtors’ minimum consumption levels by allowing them to use funds for consumption that would otherwise go to repayment. Preventing debtors’ consumption from drastically falling is economically worthwhile, because illnesses can turn into disabilities if debtors cannot pay for medical care, debtors and their families may become homeless if they cannot pay rent, and debtors’ children may drop out of school in order to work, leading to lower earnings as adults. Debtors may also require charity or public assistance. However providing consumption insurance also has costs, because credit availability falls, debtors who repay bear higher interest rates when default rates are higher, debtors may work less because the consequences of job loss or business failure aren’t as bad, and debtors may file for bankruptcy even when they haven’t experienced any reduction in consumption. The obligation to repay in bankruptcy and state-sanctioned procedures for enforcing it are intended to reduce these costs.

Lenders offer loans to debtors based on debtors’ ability-to-repay, which in turn depends on a combination of their income and wealth. However prior to BAPCPA, debtors who filed for bankruptcy were obliged to repay only from wealth, while their incomes were entirely exempt. This aspect of U.S. bankruptcy law encouraged debtors to behave opportunistically, since they could obtain loans based on their incomes but avoid repayment by filing for bankruptcy (assuming that their wealth was exempt). Suppose

debtors who file for bankruptcy are classified into two types: opportunists versus non-opportunists. Non-opportunists who borrow intend to repay their debts and they borrow an amount that they normally could repay. They file for bankruptcy only if they experience a drop in their incomes—they are the people for whom bankruptcy debt relief was intended. Opportunists, in contrast, plan in advance for bankruptcy. They borrow as much as possible and file for bankruptcy even though they haven't experienced any drop in their incomes. They often shelter substantial assets that could be used to repay at least some of their debts. Famous examples of opportunistic bankrupts include the actor Burt Reynolds, who had \$10 million of debts discharged while keeping a \$2 million house, corporate raider Paul Bilzerian, who kept a 38,000 square foot house in bankruptcy, actress Kim Basinger, rapper MC Hammer, football player Derek Sanderson, and boxer Mike Tyson. Of course in reality, many debtors are a mixture of both types—for example, debtors may lose their jobs and borrow to support consumption while they search for a new job. If the job search lasts a long time, then they may end up in bankruptcy because they accumulate more debt than they can repay.

The large credit card lenders and their supporters in Congress justified BAPCPA on the grounds that many bankruptcy filers are opportunists. For example, Representative George W. Gekas, who introduced the 1998 legislation, noted that “The bankruptcy crisis is endemic. ... bankruptcy has become a way for reckless spenders to escape their debts.” Senate Majority Leader Bill Frist argued that “Bankruptcy is for those who need help, not those who want to shift costs to other hardworking Americans. ... This legislation restores personal responsibility and fairness to an abused system.” To back up these arguments, the credit card lenders financed several studies that concluded that a substantial minority of bankruptcy filers could afford to repay most of their unsecured debt. But although BAPCPA was sold on the grounds that it would discourage opportunism, I argue here that it will mainly affect non-opportunistic debtors, many of whom will find themselves unable to file for bankruptcy even when their incomes have declined substantially and they cannot repay any of their debt.

The paper is organized as follows. Section I examines U.S. bankruptcy law prior to the adoption of BAPCPA and section II examines the economic effects of the changes under BAPCPA. In both sections I consider debtors' incentives to file for bankruptcy,

incentives for opportunistic behavior by debtors, and the bankruptcy balance between consumption insurance for debtors versus protection of creditors. Section III examines the market for credit card loans and how the adoption of BAPCPA affects the bankruptcy balance. Section IV considers the outlines of an optimal personal bankruptcy procedure and Section V briefly contrasts French and German personal bankruptcy law to U.S. law and the optimal bankruptcy procedure.

I. Bankruptcy pre-BAPCPA

Under bankruptcy law before BAPCPA, there were two separate bankruptcy procedures, Chapters 7 and 13, and debtors were allowed to choose between them. Most unsecured debts were discharged under both procedures. Under Chapter 7, debtors were obliged to repay only from wealth above an exemption level, while post-bankruptcy income was entirely exempt. In contrast under Chapter 13, debtors were obliged to use part of their post-bankruptcy income to repay, but their wealth was entirely exempt. The peculiar feature of U.S. bankruptcy law that either income or wealth was entirely exempt made filing for bankruptcy very favorable for debtors, since they could choose to repay from whichever source they didn't have! Even if debtors had both non-exempt wealth and non-exempt income, they could often convert their non-exempt wealth to exempt and then file under Chapter 7.

Suppose debtors borrow some amount B on an unsecured basis in period 1 and, as of period 2, they must repay an amount D that includes interest and other charges. In period 2, they have wealth of W and earn income of I . Both are assumed to be uncertain, the former because financial returns are risky and the latter because debtors get divorced, lose their jobs, experience business failure, etc. At the beginning of period 2, debtors learn their draws on both wealth and income. Then they make their bankruptcy decisions.

Consider non-opportunistic debtors' decisions to file for bankruptcy under Chapter 7. Debtors' cost of filing for bankruptcy is assumed to be C_p and the amount of debt discharged in bankruptcy is D_p , where the p subscripts indicate pre-BAPCPA values.

Since not all debt is discharged in bankruptcy, D_p may be less than D . Exemptions for wealth in bankruptcy were (and still are) set by the states and they vary widely. Most states have a blanket exemption for “household goods” that covers furniture, household equipment, and clothing, plus separate exemptions for particular types of assets, each with a fixed dollar limit (see Martin, 2005, for a list of current exemptions by state). The largest exemption in most states is the “homestead” exemption for equity in owner-occupied homes, which varies from zero in two states to unlimited in Texas, Florida and several other states. Many states also allow married couples and elderly debtors in bankruptcy to take larger exemptions and some states allow debtors to choose between the state’s exemptions and a separate set of Federal bankruptcy exemptions. Thus Chapter 7 wealth exemptions are fixed dollar amounts that differ across individual debtors depending on their state of residence, whether they are homeowners, and other factors. Suppose the exemption for a particular debtor is denoted X_p .

Non-opportunistic debtors benefit from filing for bankruptcy if the amount of debt discharged in bankruptcy D_p exceeds the cost of filing for bankruptcy C_p plus the value of non-exempt wealth that debtors must give up, which is either $W - X_p$ or zero, whichever is greater. For each debtor, there is a threshold level of wealth W_p^* such that the debtor is indifferent between filing or not filing for bankruptcy because benefits equal costs, or $D_p = \max[W_p^* - X_p, 0] + C_p$. Prior to BAPCPA, non-opportunistic debtors gained from filing under Chapter 7 if their actual wealth turned out to be below the threshold, or if $W < W_p^*$.

What about opportunistic debtors? Prior to BAPCPA, they made their bankruptcy decisions in the same way, but they planned in advance to increase their financial gain from bankruptcy. Pre-BAPCPA bankruptcy planning strategies included borrowing more by acquiring additional credit cards and charging more on each card, converting non-exempt assets to exempt by paying down their mortgages or renovating their homes (assuming that the additional home equity would be exempt under the state’s homestead exemption), moving to states with higher exemptions, and sheltering non-exempt assets

by putting them into “asset protection trusts.” These strategies raised the amount of debt discharged in bankruptcy D_p or raised the amount of wealth that was exempt in bankruptcy X_p , thus increasing debtors’ financial gain from filing. They also raised the threshold level of wealth W_p^* , so that debtors gained from filing for bankruptcy at higher wealth levels.

In a study done in the mid-1990’s (White, 1998), I used a representative sample of U.S. households—the Federal Reserve Board’s Survey of Consumer Finances—to calculate the proportion of U.S. households that would benefit from filing for bankruptcy under Chapter 7. I found that if debtors behaved non-opportunistically, then about 15% of U.S. households would gain financially from filing. But if debtors behaved opportunistically by charging more on their credit cards, using non-exempt assets to reduce their mortgages or renovate their homes, or moving to Texas or Florida, then more than half of all households would gain from filing. The more debtors used these strategies, the higher their benefit from filing for bankruptcy was. Thus pre-BAPCPA bankruptcy gave debtors strong incentives to behave opportunistically.

Now turn to Chapter 13. Prior to BAPCPA, debtors filing under Chapter 13 had to propose a plan to repay some or all of their debt from post-bankruptcy income over a three to five year period. Only the approval of the bankruptcy judge—not creditors—was required for approval of Chapter 13 repayment plans. Most debtors in Chapter 13 proposed to repay either an amount equal to the value of their non-exempt assets, $W - X_p$, or a token amount such as 1% of debt if they had no non-exempt assets.

Bankruptcy judges generally accepted these plans, because debtors could otherwise shift their filings to Chapter 7. This meant that the conditions under which debtors gained from filing for bankruptcy under Chapter 13 and Chapter 7 were the same—that debtors’ wealth W was less than the threshold W_p^* .

Pre-BAPCPA Chapter 13 also included some special features that were intended to encourage debtors to use it rather than Chapter 7. If debtors were behind on their mortgage payments and lenders were about to foreclose, debtors could delay foreclosure by filing under Chapter 13 (although they were still required to repay the entire amount

owed on the mortgage). Some car loans were partially discharged in Chapter 13, since the loan principle could be “stripped down” to the value of the car if the former was greater than the latter. Also, certain types of unsecured debts, such as debts incurred by fraud, could be discharged in Chapter 13. None of these features were available in Chapter 7. While these special features increased the number of debtors who filed under Chapter 13, they did not generally affect the amounts that debtors repaid on their unsecured debts—most Chapter 13 debtors would pay what they owed on their mortgages or car loans and then stop making payments on their plans.

Figure 1a shows debtors’ period 2 wealth W on the horizontal axis and their period 2 income I on the vertical axis. Although wealth is a stock and income is a flow, debtors’ short-run ability-to-pay equals the sum of wealth plus income, so that ability-to-pay increases with distance from the origin and debtor’s gain from filing for bankruptcy falls with distance from the origin. The area to the left of the vertical line at W_p^* (shown in red) is the region where non-opportunistic debtors gained from filing for bankruptcy pre-BAPCPA. Regardless of whether they filed under Chapter 7 or 13, they gained from bankruptcy as long as their wealth was less than W_p^* . And because income was completely exempt under Chapter 7, debtors gained from filing regardless of how high their incomes were. The area to the left of the blue vertical line in figure 1b shows the region of gain for opportunistic debtors. The strategies that opportunistic debtors follow in planning for bankruptcy cause the threshold level of wealth W_p^* to shift to the right, so that opportunistic debtors’ region of gain from bankruptcy is larger than that of non-opportunistic debtors.

Figures 1a and 1b suggest that debtors could gain from filing for bankruptcy pre-BAPCPA even if they had high ability-to-pay and, if they behaved opportunistically, they could gain from filing even if they were millionaires. While not all debtors whose income and wealth placed them in the regions of gain actually filed for bankruptcy, pre-BAPCPA debtors were more likely to file for bankruptcy as their financial gain from bankruptcy increased (see Fay, Hurst and White, 2002, for evidence). Thus the larger the shaded area, the more bankruptcy filings occurred. In addition, pre-BAPCPA bankruptcy

filers on average repaid only about 1% of their unsecured debt. Overall it's not surprising that banks specializing in credit card lending lobbied hard for bankruptcy reform!

But the fact that opportunists gain more from filing for bankruptcy than non-opportunists does not imply that most pre-BAPCPA bankruptcy filers were opportunists. How much opportunism actually occurred prior to the adoption of BAPCPA? Little good data is available on this issue, but the Administrative Office of the U.S. Courts occasionally publishes figures from their yearly samples of bankruptcy filers (see Flynn and Bermant, 2003/2004 and Mar. 2003). Consider “no-asset” Chapter 7 filings, in which debtors repay nothing in bankruptcy because all of their wealth is exempt. No-asset filings constitute nearly three-quarters of all personal bankruptcy filings and 96% of Chapter 7 filings. Three percent of no-asset filers have annual incomes of \$72,000 or more and the median amount of credit card debt for these filers is \$33,500—twice the average level for all bankruptcy filers. Clearly some of these debtors are opportunists, since they have both high debt and the ability-to-repay at least part of it. In addition, the top 0.4% of no-asset filers has at least \$500,000 in credit card debt. But three-quarters of this group of debtors owned failed businesses and most of their debts presumably were business debts. Since their incomes were low, they probably had little ability-to-repay. Thus while some bankruptcy filers behave opportunistically and many run up credit card debt beyond their ability to repay, the proportion of pre-BAPCPA bankruptcy filers who were opportunists appears to have been fairly small—only a few percent of filers overall. This suggests that the reforms under BAPCPA may have had a broader agenda than just reducing debtor opportunism.

II. Bankruptcy under BAPCPA

How did BAPCPA change U.S. personal bankruptcy law? BAPCPA retained both the Chapter 7 and Chapter 13 personal bankruptcy procedures, but it abolished debtors' right to choose between them and replaced it with a “means test” for Chapter 7. To qualify for Chapter 7, debtors must demonstrate that their incomes are below a certain cutoff and, if not, they must file under Chapter 13. BAPCPA also changed debtors' obligation to repay in Chapter 13. Instead of debtors proposing their own repayment

plans, the new means test determines debtors' "disposable income" and requires that they use all of it for five years to repay. Also, the special features that previously encouraged debtors to choose Chapter 13 have been abolished. In Chapter 7, the system of wealth exemptions that vary across states remains the same, but BAPCPA introduced new restrictions on when debtors are allowed to use them. Finally, BAPCPA made certain types of debts non-dischargeable, it greatly raised bankruptcy costs by adding new fees and hurdles to the filing process, and it lengthened the minimum period between bankruptcy filings--from 6 to 8 years for Chapter 7 and from 6 months to 2 years for Chapter 13.

Consider bankruptcy costs first. Under BAPCPA, debtors must take an approved credit counseling course before filing and they must take a financial management course before receiving a discharge of debt. They must file about 30 forms with the bankruptcy court that document their real and personal assets, assets claims as exempt, retirement accounts, debts of all types, income, business income, expenditures, alimony/child support payments, contractual and lease obligations, and information about legal representation. They must also submit copies of their tax returns and wage stubs. (Most of this information was not required pre-BAPCPA.) Bankruptcy lawyers must investigate and verify the accuracy of the information on these forms—lawyers can be fined if any of the information is inaccurate. Also if the forms contain errors, then debtors' bankruptcy filings can be dismissed and their lawyers may be required to give up the fees they have collected. These new requirements are likely to cause some bankruptcy lawyers to leave the field and those remaining to raise their rates. One bankruptcy guide predicts that the cost of cost of filing under BAPCPA will be around \$2,500 for lawyers' fees plus \$200-300 in filing fees, compared to less than \$1,000 before BAPCPA (see Elias, 2005). These changes cause C_b to exceed C_p (where b refers to values under BAPCPA).

BAPCPA also made some types of debt non-dischargeable in bankruptcy. Car loans can no longer be "stripped-down" and debts incurred by fraud are no longer dischargeable. Student loans from private lenders are no longer dischargeable (student loans from government sources were already non-dischargeable). Cash advances greater than \$750 and charges for luxury goods costing more than \$500 are now non-

dischargeable if they are obtained less than 70 days or 90 days prior to filing, respectively. These changes presumably are intended to prevent debtors from going on spending sprees shortly before filing, but they imply that the amount of debt discharged in bankruptcy under BAPCPA, D_b , is smaller than the amount discharged pre-BAPCPA, D_p .

Now turn to the new BAPCPA restrictions on debtors' use of wealth exemptions. If debtors move to a new state less than two years before filing, they must use the homestead exemption in their old state. Thus they can no longer gain from moving to Texas or Florida unless they plan for bankruptcy far in advance. Also debtors can no longer convert non-exempt assets into home equity by paying down their mortgages or renovating their homes, unless they do so at least 3 1/3 years or 10 years, respectively, before filing. Otherwise the additional home equity will not be exempt. Also under BAPCPA, states' general exemptions for household goods are now limited to one television, one computer, etc. Overall, these new restrictions reduce the wealth exemption so that, for some debtors, X_b is lower than X_p . The reductions in the amount of debt discharged and the wealth exemption and the increase in bankruptcy costs all have the effect of reducing the wealth threshold for filing for bankruptcy under BAPCPA.

Now turn to the means test, which all debtors in bankruptcy must take. The first part of the test determines whether debtors are allowed to file under Chapter 7. Debtors must determine their annual family income I , which BAPCPA defines as their average monthly family income over the six-month period before the bankruptcy filing, multiplied by 12. They are allowed to file under Chapter 7 if I is less than the median family income in their state of residence for families of the same size. If debtors do not qualify for Chapter 7 under this test, then they must determine their yearly income exemption, denoted x_b , and their yearly disposable income, which is $I - x_b$. The means test also allows debtors to file under Chapter 7 if their disposable income is less than \$6,000 over 5 years (\$1,200 per year) or if their disposable income is as high as \$10,000 over 5 years (\$2,000 per year) but is less than 25% of their debt. Taking these conditions together, suppose M_b denotes the maximum yearly income level at which debtors pass the means test and

are allowed to file under Chapter 7. Debtors who fail the means test because I exceeds M_b must file under Chapter 13 if they file for bankruptcy at all. The second part of the means test says that debtors who are required to file under Chapter 13 must use their entire disposable income for five years after filing, or $5(I - x_b)$, to repay.

The BAPCPA income exemption, x_b , is entirely new (prior to BAPCPA, debtors proposed their own income exemptions as part of their Chapter 13 plans). The BAPCPA income exemption equals the sum of a variety of separate allowances for different types of expenditures. One set of allowances, for housing, transport, food, apparel, and personal care, is determined by formula. The housing allowance depends on housing costs where the debtor lives, the debtor's family size, and whether the debtor is an owner or a renter; the transport allowance depends on where the debtor lives and whether the debtor's family owns 0, 1, or 2 cars; and the other allowances depend on the debtor's family size and broad categories of income. A second set of allowances covers expenditures that are (mainly) outside the debtor's control, including income tax payments, court-ordered spousal and child support payments, childcare costs, uninsured health care costs, the cost of term life insurance, the cost of telecommunication services, and several minor categories. Finally, a third set of allowances is based on debtors' actual expenditures. These include allowances for the spending on health and disability insurance, contributions to the care of elderly or ill family members, additional home energy costs, additional food and clothing expenses up to certain limits, charitable contributions, the costs of protection against family violence, loans to finance contributions to tax-sheltered individual retirement plans and education savings accounts, and all payments on secured debt.

Now turn to the conditions under which non-opportunistic debtors gain from filing for bankruptcy under BAPCPA. To decide whether to file under Chapter 7, debtors first must determine whether their incomes satisfy the means test, which requires that $I \leq M_b$. Assuming that they "pass" the means test, debtors must go through the same procedure as previously discussed to determine their gains and costs from filing under Chapter 7. This determines a new threshold level of wealth W_b^* such that debtors are indifferent between filing under Chapter 7 versus not filing for bankruptcy, where

$W_b^* - X_b + C_b = D_b$. Debtors gain from filing under Chapter 7 if their actual wealth W is below the new threshold wealth level W_b^* . The lower block in figure 2a shows the region where $I \leq M_b$ and $W \leq W_b^*$, so that non-opportunistic debtors gain from filing under Chapter 7 and are allowed to do so.

Now consider non-opportunistic debtors' decisions to file under Chapter 13. Under BAPCPA, their gain from filing for bankruptcy is still the amount of debt discharged D_b , but their cost of filing is the sum of bankruptcy costs plus 5 years of disposable income. Debtors are indifferent between filing under Chapter 13 versus not filing for bankruptcy at all if $5(I - x_b) + C_b = D_b$. This condition determines a threshold level of income, denoted I_b^* , such that debtors are indifferent between filing under Chapter 13 or remaining out of bankruptcy. They gain from filing if $I < I_b^*$ and they are better off avoiding bankruptcy otherwise. In addition, debtors fail the means test and are not allowed to file under Chapter 7 if their incomes exceed M_b . This means that debtors both gain from filing under Chapter 13 and are barred from filing under Chapter 7 when $M_b < I \leq I_b^*$. Finally, a further limitation on debtors' use of Chapter 13 is the "best interest of creditors" test, which requires that debtors repay at least as much in Chapter 13 as they would in Chapter 7. This means that debtors must repay at least an amount equal to the value of their non-exempt wealth, so that they gain from filing under Chapter 13 only if their wealth is less than the wealth threshold, or $W \leq W_b^*$. The upper block in figure 2a shows the region where non-opportunistic debtors gain from filing under Chapter 13 because all of these conditions are satisfied, but they are not allowed to file under Chapter 7. The region in which non-opportunistic debtors gain from filing for bankruptcy is outlined in red.

How does the bankruptcy decision differ for opportunistic debtors? As already discussed, BAPCPA closed off many of the strategies that opportunistic debtors previously used to raise their wealth thresholds for bankruptcy, including no longer allowing discharge of some types of debt and preventing some debtors from using high state homestead exemptions. But BAPCPA left some old strategies intact and also

opened up some new ones. Debtors are still allowed to use asset protection trusts to shelter large amounts of wealth in Chapter 7 bankruptcy and, in about 20 states, married debtors can still shelter the entire value of their homes, as long as they own the homes in “tenancy by the entirety” and only one spouse files for bankruptcy. BAPCPA also provided a generous new exemption in Chapter 7 for up to \$1 million in tax-sheltered individual retirement accounts (up to \$2 million for married couples who file for bankruptcy). But using it requires that debtors plan for bankruptcy far in advance, since Federal law limits the amount that can be contributed to tax-sheltered retirement accounts each year. BAPCPA also exempts debtors from the means test if their debts are not “primarily consumer debts,” so that opportunistic debtors can avoid the means test and file under Chapter 7 by setting up a business and acquiring business debt before filing. These strategies have the effect of raising debtors’ wealth thresholds, W_b^* .

Opportunistic debtors can also use various strategies to raise their income thresholds for filing for bankruptcy I_b^* . One such strategy involves working less before bankruptcy. Since BAPCPA defines debtors’ annual incomes I based on their incomes during the six month period before filing, opportunistic debtors can reduce their obligation to repay in Chapter 13 by working less during this period. To illustrate, suppose debtors earn \$100 per month less during each of the 6 months before filing. Doing so costs them \$600, but lowers their Chapter 13 repayment obligation by \$100 per month for 60 months, or \$6,000. Thus they receive a 10-fold return per dollar of reduced earnings. The high return to working less persists until debtors’ income is low enough that they pass the means test and are allowed to file under Chapter 7. Debtors can also gain by simply shifting their incomes so that the money is paid outside of the 6-month window before bankruptcy.

Opportunistic debtors can also re-arrange their spending so as to raise their income exemption x_p . Under BAPCPA, some of the expenditure allowances are formula-based, which prevents debtors from manipulating them. But others are based on debtors’ actual spending levels, so that opportunistic debtors can reduce their obligation to repay in Chapter 13 by spending more on these categories. To get a sense of how far the BAPCPA income exemption can be stretched, I calculated expenditure allowances and

the means test for three hypothetical debtors who were assumed to live in three different states, have families of four, and have either 150% or 200% of their states' median income levels (White, 2007). Each debtor was assumed to own a house having the median value of single-family homes in the relevant metropolitan area and to obtain a new mortgage before filing that covered 100% of house value. Each debtor was also assumed to own two relatively new cars financed with car loans. Each debtor purchased health and disability insurance and borrowed to finance retirement contributions and education savings accounts for their children (BAPCPA limits these accounts to \$5,000 per child). Debtors also spent more on a combination of charitable contributions, cell phones, additional food, clothing and energy, and an alarm system or a dog for protection. I found that debtors having incomes as high as \$135,000 per year could pass the means test and file under Chapter 7 by reducing their disposable incomes to less than \$2,000 per year. These calculations suggest that opportunistic debtors who engage in bankruptcy planning can still qualify to file under Chapter 7 even if their incomes are as high as the 90th percentile of the U.S. income distribution. Thus the BAPCPA means test forces non-opportunistic debtors into Chapter 13 even if they have relatively low incomes, but allows opportunistic debtors with much higher incomes to file under Chapter 7. The main determinant of whether debtors pass or fail the BAPCPA means test is not their "means," but whether they plan for bankruptcy in advance.

Figure 2b shows the region in which opportunistic debtors gain from filing for bankruptcy (outlined in blue). Compared to figure 2a, the lower block where debtors gain from filing under Chapter 7 is both wider and taller and the upper block where debtors gain from filing under Chapter 13 has nearly disappeared. This is because when debtors behave opportunistically, they qualify to file under Chapter 7 even at high income levels and, as a result, few if any will choose to file under Chapter 13. The wealth threshold for filing under Chapter 7 also shifts out, since opportunistic debtors are more likely than non-opportunists to benefit from the new exemption for retirement accounts.

Finally, how has BAPCPA changed the attractiveness of bankruptcy? We can address this question for non-opportunistic debtors by comparing figures 1a versus 2a and for opportunistic debtors by comparing figures 1b versus 2b. To do so, we must re-interpret the wealth and income thresholds as applying to the average debtor of each type.

The region in which non-opportunistic debtors benefit from filing for bankruptcy is smaller under BAPCPA than before, i.e., the blocks in figure 2a are smaller than the area to the left of the wealth threshold in figure 1a. This is because pre-BAPCPA debtors benefited from filing for bankruptcy at any income levels, but BAPCPA debtors no longer benefit from filing--even under Chapter 13--if their incomes are above I_b^* . In addition, the combination of much higher bankruptcy costs, narrower discharge of debt, and restrictions on debtors' use of high homestead exemptions imply that the wealth threshold is lower under BAPCPA. Overall, BAPCPA is likely to reduce the number of non-opportunistic debtors who file for bankruptcy.

What about BAPCPA's effect on opportunistic debtors? The comparison between figures 1b and 2b is more ambiguous, since BAPCPA eliminated debtors' automatic right to file under Chapter 7, but it provided many strategies for avoiding Chapter 13 even at high income levels. BAPCPA seems unlikely to prevent determined opportunists from planning for and benefiting from bankruptcy, even if they have high ability to pay.

III. BAPCPA and the bankruptcy balance

The large credit card and automobile lenders wrote the bankruptcy reform legislation and they spent over \$100 million in lobbying Congress to approve it. This raises the questions of what lenders got from bankruptcy reform and whether the changes they sponsored were economically efficient.² As noted above, the adoption of BAPCPA shifted the balance toward creditors by raising debtors' cost of filing for bankruptcy and reducing the amount of debt that is discharged in bankruptcy. These changes will have little effect on opportunistic debtors, who can still use pre-bankruptcy planning to avoid Chapter 13 and shelter substantial assets in bankruptcy. But the changes are likely to harm many non-opportunistic debtors, simply because they can no longer afford to file for bankruptcy.

² The original version of the legislation that became Bapcpa was even more favorable to lenders. For example, the means test originally required debtors to file under Chapter 13 if their family income was less than 75% rather than less than 100% of the median family income in their state of residence.

Consider some characteristics of the market for credit card loans in the U.S. The average U.S. household currently carries \$8,000 of credit card debt (this figure includes households that have no credit card debt and those that have zero balances). Credit card lenders compete heavily for new customers—U.S. households receive an average of 45 credit card solicitations per year. Lenders encourage consumers to accept and use new cards by offering front-loaded rewards such as low annual fees, low introductory interest rates, and frequent flier miles or other benefits. But if customers pay late, use their cards over the credit limit, or make only minimum payments on their balances, then lenders charge high fees (\$40 is a common late or overlimit fee) and raise interest rates to extremely high levels (24 to 30% is typical for high-risk debtors). Because there is less competition among lenders for the high-risk market, the extent to which lenders raise interest rates and impose fees is limited more by whether price increase cause debtors to default than by whether they cause debtors to take their business elsewhere. Over the past decade, competition among credit card lenders has led to reduced fixed charges such as annual fees and increased penalty charges such as late fees and high interest rates.³

This pricing pattern increases debtors' borrowing costs when their wealth/income turns out to be low, since this is when they are likely to pay late, charge over the limit, and make low monthly payments. The result is that debtors face high borrowing costs when their ability-to-pay is low and low borrowing costs when their ability-to-pay is high—i.e., the variance of their consumption increases. The high consumption variance in turn makes bankruptcy-provided consumption insurance more valuable and suggests an important justification for the high bankruptcy exemptions that existed in the U.S. pre-BAPCPA.

But the adoption of BAPCPA means that many debtors who would previously have filed for bankruptcy will delay filing or not file at all. This gives lenders longer to collect the high fees and interest charges and, if debtors default but do not file for bankruptcy, then lenders have more opportunity to collect by garnishing debtors' wages. (Most U.S. states allow lenders to garnish up to 25% of debtors' wages following default, but garnishment ends when debtors file for bankruptcy.) In addition, BAPCPA lengthened the minimum period that must elapse between bankruptcy filings, so that fewer debtors

³ See Evans and Schmalensee (2000, p. 210).

are eligible to file. Thus under BAPCPA, debtors are less likely to file for bankruptcy and, if they file, they will be worse off because the costs of filing are higher and the amount of debt discharged in bankruptcy is lower. But for credit card lenders, the adoption of BAPCPA means higher profits.

Overall, U.S. personal bankruptcy law pre-BAPCPA certainly needed reforming. But BAPCPA harms non-opportunistic debtors, while doing little to discourage opportunism.

IV. Outlines of an optimal bankruptcy system

Consider the outlines of an economically efficient bankruptcy procedure.⁴ Debtors' ability to pay for consumption and to repay debt depends on their combined wealth plus earnings, which together constitute their purchasing power. This means that the key policy parameters in bankruptcy are the exemption levels for wealth and post-bankruptcy earnings, since these exemptions determine how wealth and future earnings are split between consumption versus debt repayment in bankruptcy. Both exemption levels should be determined exogenously in order to reduce debtors' incentive to behave opportunistically. Both the wealth and earnings exemption levels can be fixed dollar amounts, percentages of earnings/wealth, or can be based on exogenously-determined formulas (like the Bapcpa allowances for housing and transport). The earnings exemption also must specify the period during which the debtor must use non-exempt earnings to repay.

When either of the exemption levels are higher, risk averse debtors are made better off because their consumption is less variable and their minimum consumption levels are higher. If debtors' ability-to-pay turns out to be low, they can file for bankruptcy, their debts will be discharged, and they will have to use little or none of their wealth or future earnings to repay. The higher the exemption levels, the more completely debtors' consumption is insured. Higher exemptions also make it more attractive for risk averse

⁴ For a more formal version and a simulation, see White (2005) and Wang and White (2000). General considerations are discussed in Jackson (1986).

debtors to go into business, because the consequences of business failure aren't as bad. On the other hand, higher exemptions make lending less attractive to lend, since debtors are more likely to default. As a result, lenders raise interest rates and may ration credit, which harms both debtors who repay and debtors who would like to borrow but are turned down. The optimal wealth and earnings exemption levels are determined by this tradeoff, combined with work effort and opportunism considerations.

Consider again a two-period model in which a consumer borrows a fixed amount B in period 1 and agrees to repay an amount D (including interest and other charges) in period 2. Suppose in period 1, the debtor has a fixed level of earnings e and a fixed amount of wealth w . In period 2, the debtor's wealth is uncertain because financial returns are risky and the debtor's earnings are also uncertain because the debtor may lose her job or have health problems. At the beginning of period 2, suppose debtors learn their draws on the wealth distribution, W , and on the earnings distributions, E . They then decide whether to file for bankruptcy. Period 2 is assumed to cover the entire repayment period in bankruptcy and debtors' earnings E are defined over this period.

In bankruptcy, the amount of debt discharged is D_o , where $D_o \leq D$. The subscript o refers to the optimal bankruptcy system. (Policy issues that are ignored here are how much and what types of debt should be discharged and how discharging additional debt in bankruptcy trades off against higher exemption levels.) Assume that the bankruptcy exemptions are fixed dollar amounts: X dollars for wealth and x dollars for earnings over the repayment period. The costs of filing for bankruptcy, which are paid by the debtor, are assumed to be C , where $C < D_o$. Debtors are assumed to bear these costs, which include the costs of bankruptcy stigma and reduced access to credit in the future.

If debtors do not file for bankruptcy, their period 2 consumption will be $W + E - D$. If they file, there are four cases to consider: (1) High wealth/high earnings, or $W > X$ and $E > x$. Debtors' period 2 consumption in bankruptcy is $X + x - (D - D_o) - C$. (2) Low wealth/high earnings, or $W \leq X$ and $E > x$. Debtors' period 2 consumption in bankruptcy is $W + x - C$. (3) High wealth/low earnings, or $W > X$ and $E \leq x$. Debtors' period 2 consumption in bankruptcy is

$X + E - (D - D_o) - C$. (4) Low wealth/low earnings, or $W \leq X$ and $E \leq x$. Debtors' period 2 consumption in bankruptcy is $W + E - (D - D_o) - C$.

Assume that debtors file for bankruptcy whenever doing so increases their period 2 consumption. Since debtors only file for bankruptcy if their financial gain is positive, their financial gain is:

$$\max[D_o - C - \max(W_i - X, 0) - \max(E_i - x, 0), 0] \quad (1)$$

Figure 3 shows the region in which debtors gain from filing for bankruptcy under the optimal bankruptcy system. There are four sub-regions, corresponding to the four cases discussed above, and debtors are indifferent between filing versus not filing along the border of the region (shown in green). Debtors' financial gain from bankruptcy is largest at the origin and falls in size as distance from the origin increases. Thus the financial gain from bankruptcy is inversely related to debtors' purchasing power, which is both efficient and equitable.

Suppose there are many debtors, all of whom are identical as of period 1 but have different realizations of earnings and wealth in period 2. Assume that the loan industry is competitive and lenders make zero profits. This means that lenders are willing to lend as long as there exists an interest rate that allows them to make zero expected profit as of period 1.⁵

Now consider the determination of the optimal exemption levels. Suppose for simplicity that the earnings exemption is unlimited (so that $x = \infty$) and assume that the wealth exemption increases from X to X' . When X rises, lenders raise the interest rate so that the amount that debtors owe in period 2 increases from D to D' and the amount of debt that is discharged in bankruptcy increases from D_o to D_o' . As a result, debtors' period 2 consumption if they do not file for bankruptcy falls by $D' - D$ and their consumption in bankruptcy increases from $E + X - (D - D_o) - C$ to

$E + X' - (D' - D_o') - C$ (although consumption remains the same when it is

⁵ At sufficiently high exemption levels, no interest rate exists that allows lenders to make zero expected profit and, in this situation, loan markets collapse. See Fan and White (2000) for discussion.

below $E + X - (D - D_o) - C$). Also, the bankruptcy threshold $W_o^* = X + D_o - C$ increases to $W_o^{*'} = X' + D_o' - C$, so that debtors are more likely to file for bankruptcy. Figure 4 shows debtors' period 2 consumption as a function of their wealth when the wealth exemption is X (the solid line) and when it rises to X' (the dashed line). The increase in the wealth exemption lowers debtors' consumption if they do not file for bankruptcy and raises their consumption if they file, i.e., the variance of consumption drops.

Does the increase in the exemption level improve economic efficiency? This depends on debtors' degree of risk aversion and on bankruptcy costs. Suppose debtors are risk averse, the cost of filing for bankruptcy C is zero, and debtors' work effort in period 2 is fixed. Then the optimal exemption level is the highest level at which lenders are willing to lend. This is an application of the well-known result that risk averse consumers always buy insurance when it is offered at the "fair" price. Now suppose C is positive rather than zero. In this situation, debtors pay twice for higher exemption levels—once in the form of higher interest rates and a second time in the form of higher expected bankruptcy costs. Because bankruptcy insurance now costs more than the "fair" price, the optimal exemption level is less than the highest level consistent with loan markets operating. The higher the degree of debtors' risk aversion, the higher is the optimal exemption level. These results remain qualitatively the same if we examine the determination of the optimal earnings exemption rather than the optimal wealth exemption.

Finally, consider how non-competitive loan markets, opportunistic behavior, and work effort considerations affect the determination of the optimal exemption levels. Consider the non-competitive loan markets first. As discussed above, credit card lenders have changed how they charge for credit card loans, so that the cost of credit (including interest and all penalties) has increased at times when debtors' ability-to-pay is low and fallen at times when debtors' ability-to-pay is high. Because the pricing of credit card loans has increased the variance of debtors' consumption, the consumption insurance that bankruptcy provides is more valuable. An efficient bankruptcy system would therefore respond by raising the exemption levels so as to provide more insurance.

Now turn to opportunistic behavior by debtors. In the model discussed above, debtors file for bankruptcy in period 2 if their purchasing power turns out to be below the threshold $(W + E)_o^*$. But opportunistic debtors may also file when their purchasing power is above this threshold, either because they use bankruptcy planning strategies that raise the exemption levels or because they hide some of their wealth or earnings when they file for bankruptcy. Opportunistic behavior reduces credit availability by increasing default and causing lenders to raise interest rates. It also reduces equity in bankruptcy, because opportunistic debtors receive debt relief even though they have high purchasing power. An important advantage of requiring debtors to repay from their future earnings is that it tends to discourage opportunism. This is because earnings are more difficult to hide in bankruptcy than wealth, so that debtors with high earnings are discouraged from filing if they must use some of their future earnings to repay. This consideration implies that the optimal bankruptcy system should have a lower earnings exemption if the level of debtor opportunism is higher.

Finally, work effort considerations have the opposite effect on optimal exemption levels. When debtors are required to repay from their post-bankruptcy earnings, they work less. This is because the substitution effect is large and negative, while the income effect is positive but small--as long as some income or wealth is exempt. If the earnings exemption is a fixed dollar amount, then debtors have an incentive to earn up to the exemption level but no more, since additional earnings go entirely to creditors. If instead the earnings exemption covers a fixed fraction of earnings, then debtors reduce their work effort generally because their return per hour is smaller. The higher the fraction of earnings that is exempt in bankruptcy, the higher is debtors' work effort. In contrast, the wealth exemption has less effect on work effort because wealth represents the return to past rather than current work effort. Overall, as work effort considerations become stronger, the optimal earnings exemption increases but the optimal wealth exemption remains unaffected.

Wang and White (2000) simulated a bankruptcy system of the type discussed here and their results provide some evidence concerning the opportunism and work effort issues. (In their model, lending markets were assumed to be competitive.) They assumed that the wealth exemption was a fixed dollar amount, while the earnings exemption was a

fixed fraction of earnings. They also assumed that individual debtors have a varying taste for opportunistic behavior and, when opportunistic debtors file for bankruptcy, they hide a pre-determined proportion of their wealth (but they do not hide any of their earnings). Debtors decide individually whether to behave opportunistically depending on their taste for opportunism and their financial gain from behaving opportunistically. Wang and White varied the amount that opportunistic debtors hide in bankruptcy from 0 to 30% of wealth in 10% increments. In each case, they solved for the optimal wealth and earnings exemptions. In their base case, they found that when debtors do not behave opportunistically, an earnings exemption of 100% combined with a relatively low wealth exemption is optimal. But when debtors behave opportunistically, an earnings exemption of 93% combined with a higher wealth exemption was economically efficient. This is because the obligation to repay from future earnings strongly discouraged opportunistic behavior, while having little adverse effect on work effort. (Of course, this result might not carry over to alternate specifications of the model.) Wang and White also found that the wealth and earnings exemptions were always substitutes, since both provide debtors with consumption insurance. Therefore whenever it was efficient to lower one exemption, it was always efficient to offset the loss of consumption insurance by raising the other.

V. Notes on Bankruptcy in France and Germany

New consumer bankruptcy laws have recently been adopted in a number of countries besides the U.S., so it is of interest to compare these bankruptcy systems to BAPCPA. In particular, both the French and German bankruptcy procedures are closer to the optimal bankruptcy system described in section IV than U.S. bankruptcy law under BAPCPA. Each of the two countries has a single bankruptcy procedure that obliges debtors to repay from both wealth and future earnings over a multi-year period, each has a long waiting period until debt is discharged, and each attaches some stigma to the bankruptcy process by denying discharge to debtors unless the bankruptcy judge decides that the debtor has made a good faith effort to repay.⁶

⁶ The discussion of French and German bankruptcy law is based on Kilborn (2004) and (2005).

Under the French system, there is a fixed wealth exemption that is too low to protect equity in owner-occupied homes and a fixed earnings exemption that is set at a poverty-level standard of living. Debtors are obliged to use all of their non-exempt earnings to repay for 8 to 10 years, after which they receive a discharge. Because the French definition of earnings is debtors' actual post-bankruptcy earnings, debtors in bankruptcy have little incentive to earn more than the exemption level. However the bankruptcy judge may deny debtors a discharge if they reduce their work effort by quitting their jobs or engage in opportunistic behavior by moving to avoid repayment. The presumption is that the discharge should only be issued if debtors have either repaid a substantial amount of their debt or the judge decides that they will never be able to do so. Thus while the French bankruptcy system conforms to the outlines of the optimal bankruptcy system, French exemption levels are too low to provide an efficient level of consumption insurance and they discourage work effort too strongly. But since the French government guarantees a higher minimum standard of consumption than the U.S. government, low exemption levels are likely to be more efficient than in the U.S. context. Nonetheless, France recently adopted a new law that allows for an immediate discharge of debt for those debtors who are determined to have no ability to repay from either earnings or wealth.

In Germany, debtors are also obliged to repay from both wealth and post-bankruptcy earnings for a six-year period after filing. German exemptions are more generous and they typically cover all of debtors' earnings and wealth—leaving most debtors with no obligation to repay. Nonetheless debtors must still wait the six year period before they can receive a discharge and the discharge may still be denied for bad behavior.⁷

The French and German bankruptcy laws suggest that while requiring debtors to repay from post-bankruptcy earnings is useful in discouraging opportunism, in practice few debtors in bankruptcy have sufficient earnings or assets to repay unless policymakers are willing to reduce them to a poverty-level standard of living.⁸

⁷ In both France and Germany, repayment plans are negotiated between debtors, creditors and a government representative, so that exemptions differ across debtors. See Kilborn (2004) and (2005).

⁸ Bankruptcy systems in Canada and England/Wales are more similar to the U.S., with more than one bankruptcy procedure and a much shorter period to discharge. See Ramsay (2007) and Ziegel (2007).

Table 1: Non-Business Bankruptcy Filings, 1980-2005

	Non-business filings	% of U.S. population
1980	287,570	0.13%
1985	341,233	0.14%
1990	718,107	0.29%
1995	874,642	0.33%
2000	1,217,972	0.43%
2001	1,452,000	0.51%
2002	1,539,000	0.53%
2003	1,625,000	0.56%
2004	1,563,000	0.53%
2005	2,000,000	0.68%
2006	450,000	

Source: Data on number of non-business bankruptcy filings are taken from www.abiworld.org. Data for 2006 is based on the first quarter. Note that married couples who file for bankruptcy are counted as a single bankruptcy filing, so that the number of filings is less than the number of people who file for bankruptcy.

Figure 1a

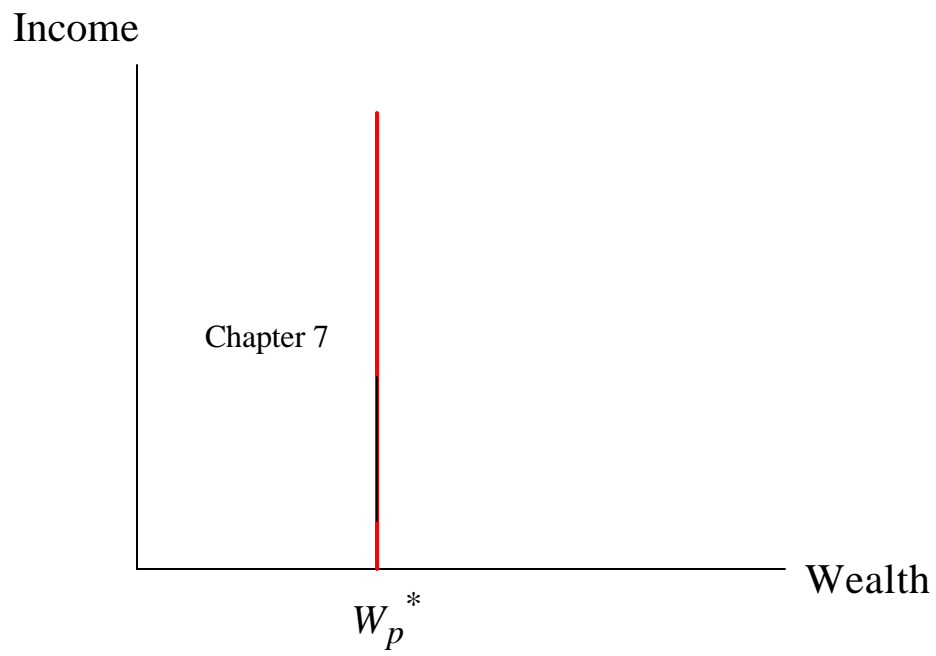


Figure 1b

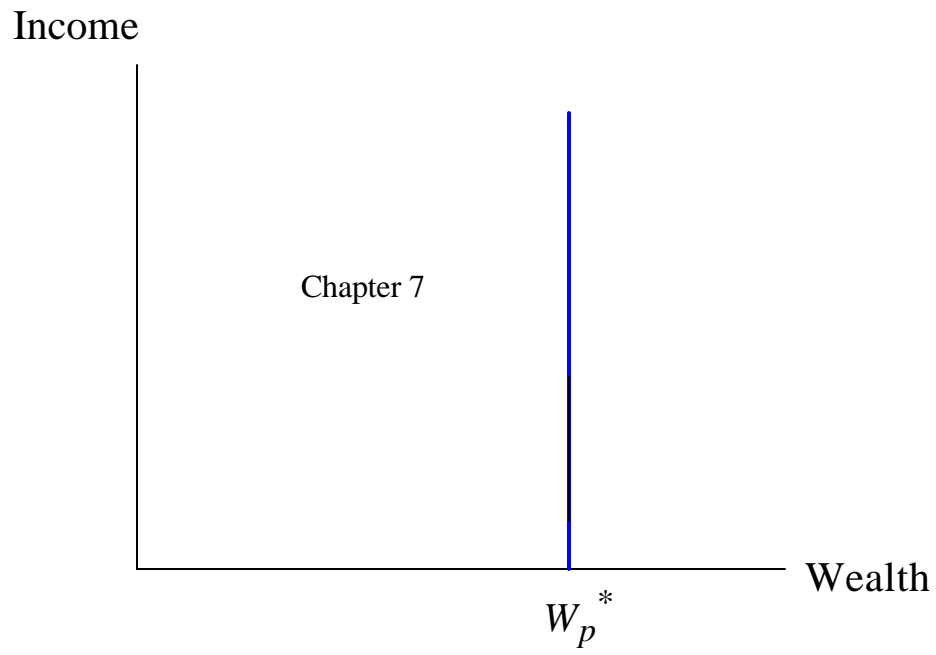


Figure 2a

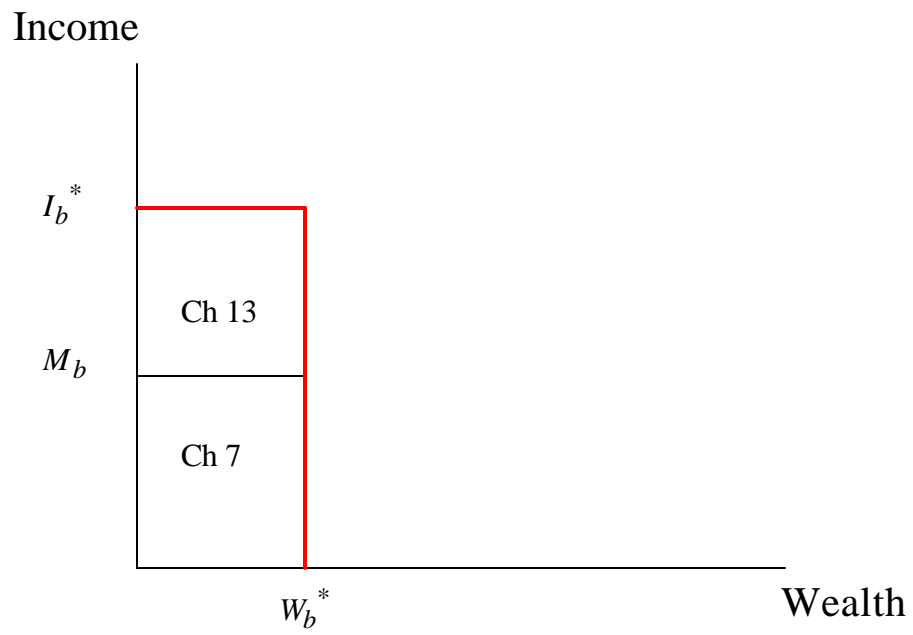


Figure 2b

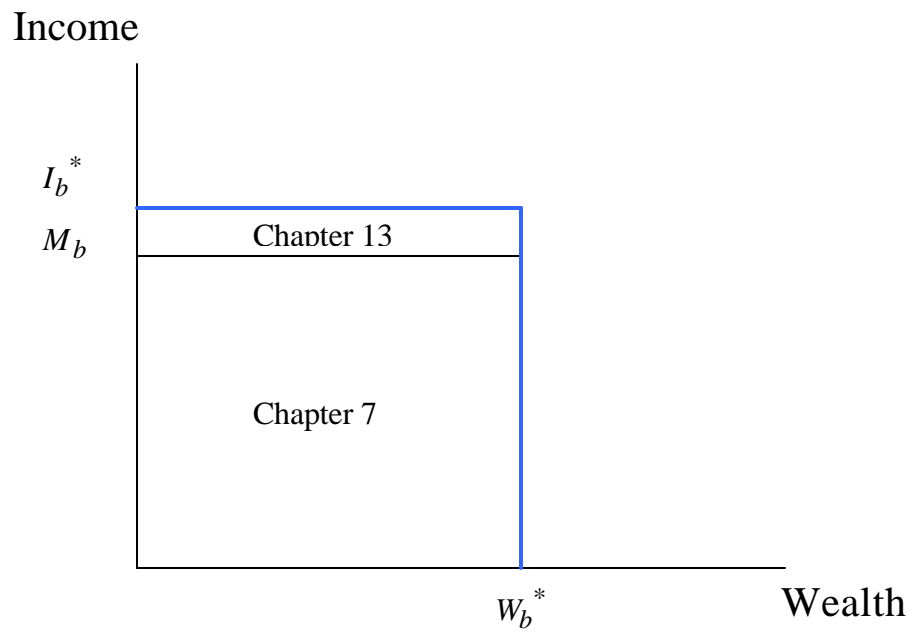


Figure 3

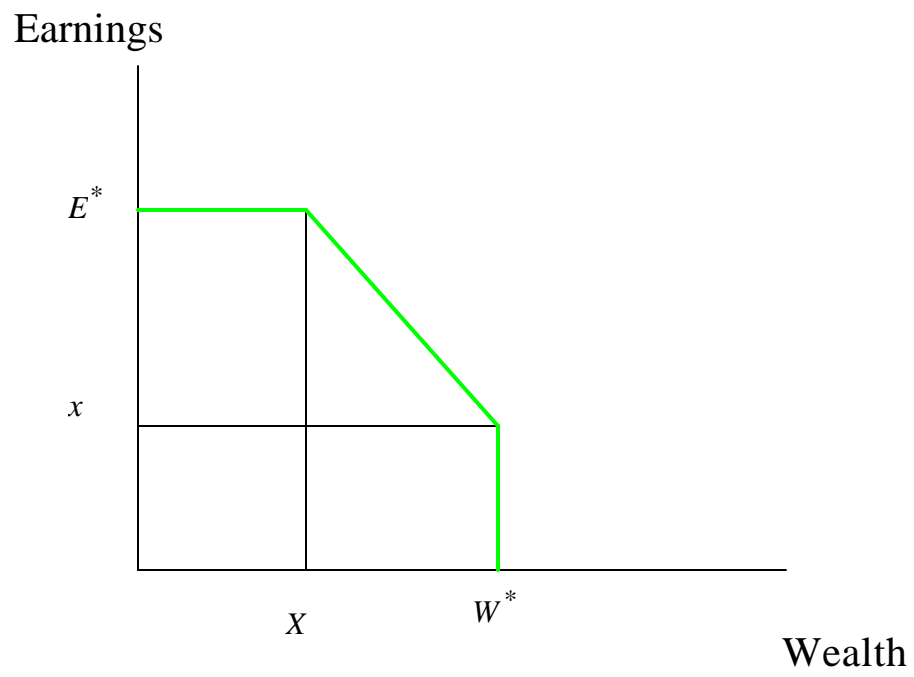
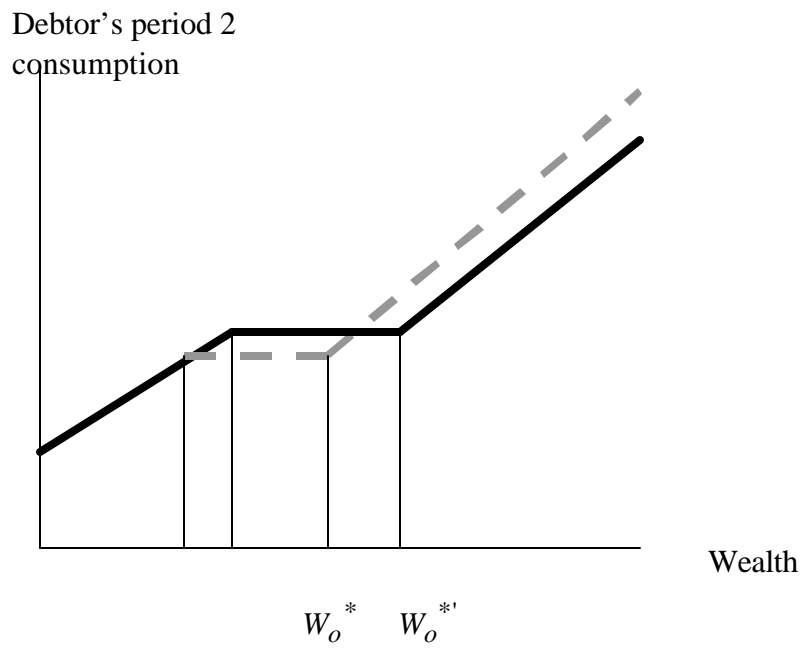


Figure 4



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