

CFI in Focus

Incentives and Debt Repayment in Consumer Bankruptcy

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Consumer bankruptcy is costly to creditors and debtors. Debtors may lose their assets in bankruptcy, or they may be required to repay debts out of their future income for years. Creditors lose substantial portions of debt owed to them. On the flip side, consumers receive a fresh start and partial debt forgiveness in bankruptcy, while creditors are able to recover some debt balances from debtors. Bankruptcy policies are designed to balance the interests of creditors and debtors. In general, many insolvent debtors have limited assets to repay to their creditors in bankruptcy. Thus, recent bankruptcy reforms have focused on requiring debtors to repay out of their future income. For example, the U.S. Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 (BAPCPA) requires debtors with higher assets or incomes to file under Chapter 13 bankruptcy, which is essentially a three-to five-year debt repayment plan. Similarly, a 2009 reform of the Canadian bankruptcy system focused on requiring debtors to make payments to creditors for longer periods using their future income.

Repaying creditors out of future income has its own problems because this income is uncertain and difficult to verify. In simple words, conditioning debt payments on expected future income can create an incentive for some filers to understate their income to reduce their debt payments. In addition, requiring repayments based on future income creates incentives for some debtors to change their default behavior. Finally, it is not uncommon for bankruptcy codes to specify repayment schedules based on where they fall in terms of a discrete level of income. Consumers just above this level pay significantly more than consumers just below this cutoff value. This too creates an incentive to manipulate income.

In this article, we summarize findings from two recent studies on how requiring higher debt repayment to creditors in bankruptcy can lead to unintended consequences. In our first study, “[Reducing Strategic Default in a Financial Crisis](#),” we examine how increasing the

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penalty for default affects future default on consumer proposals, which are debt repayment plans available to distressed and insolvent debtors in Canada. We show that a higher default penalty reduces subsequent default, which suggests that not all defaults are the result of unfortunate events a borrower faces and that some defaults are what economists sometimes call “strategic.” The second study, “[Debtor Income Manipulation in Consumer Credit Contracts](#),” examines how requiring debtors to make higher repayment to creditors based on their income can induce some borrowers to misreport their income. These behaviors are important to understand because similar incentives exist in many other settings. For example, the potential for strategic default appears in studies of various credit markets, such as mortgages, credit cards, and auto loans, but it is difficult to measure because strategic defaulters are not willing to reveal their motivation. Similarly, the incentive to misreport income may exist in other settings.

Reducing Strategic Default in a Financial Crisis

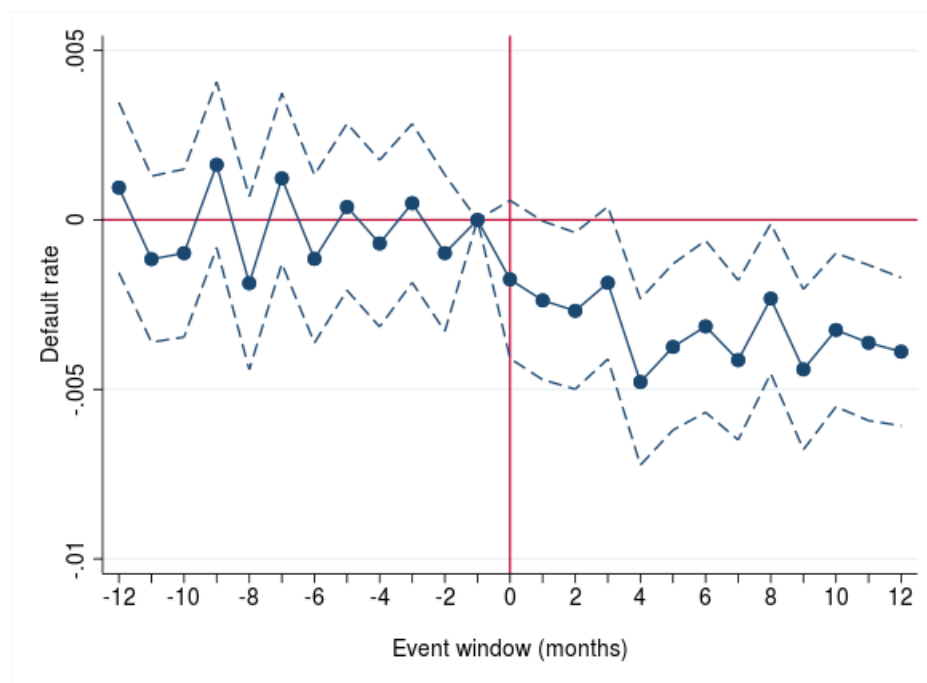
In our study, “[Reducing Strategic Default in a Financial Crisis](#),” we examine an unusual policy intervention by Canadian insolvency regulators, in the crisis year of 2009, that effectively increased the penalty for default on long-term debt repayment contracts, while not affecting the liquidity of debtors. This setting allows for a simple test of whether debtors have the current resources to avoid default. If these debtors respond to this increase in the penalty for default — by subsequently reducing their default — then this implies that the debtors had the resources to reduce default, even without the increased penalty. The literature describes debtors who default in spite of having resources to pay their debt as strategic defaulters; thus, our setting allows us to provide evidence on strategic default in a financial crisis.

We focus on Canadian consumer proposals, which are part of the Canadian consumer insolvency system. Proposals are a long-term (up to five years) legal contract to restructure outstanding consumer unsecured debt through a long-term stream of lower payments. If the debtor makes all payments on time, then the remaining unsecured debts are forgiven. If the debtor does not make agreed-to payments on time for three months, then the debtor has defaulted on the proposal, and creditors can pursue actions (such as collections and wage garnishment) to enforce repayment of the original debt. Most debtors who default on their proposals subsequently file for personal bankruptcy to receive new legal protection from creditors. This feature connects these two types of consumer insolvency.

The 2009 bankruptcy reform introduced an arbitrary cutoff in debt repayment for consumers with surplus income (SI) equal to and above \$200. In simple words, SI is calculated as income minus authorized expenses. After the reform, existing proposal filers who default on their proposals and have SI of \$200 or more need to pay at least \$1,200

extra to their creditors in bankruptcy. However, there is no change in default penalty for filers below \$200. We use this difference in incentives to test how additional default penalty affects proposal default.

Figure 1: Differences in Monthly Default Rates Between Filers With and Without a Higher Default Penalty



Note: The dashed lines show 95 percent confidence intervals.

Figure 1 shows the difference in default rates between debtors with a higher default penalty and those without the higher penalty before and after the reform date. This figure shows that there is no difference in default between these two groups before the law change (shown in the figure as negative time). In addition, immediately after the reform implementation, the default rate in the group with the higher penalty declines relative to the group without the penalty and remains suppressed for at least 12 months.

We estimate that, over the life of their proposal contracts, debtors facing the higher default penalty reduced their default rate by 14 percent, relative to debtors without this penalty. This finding — that a higher default penalty can incentivize debtors to reduce their default rate — is consistent with those debtors being strategic defaulters. In addition, we show that proposal filers who are homeowners reduce their default rate by a larger degree than nonhomeowners. This result is consistent with the idea that homeowners with the higher penalty face an additional incentive to avoid losing the house, compared with nonhomeowners with the higher penalty. In the paper, we also show that debtors with adverse life events (e.g., health shocks, income loss) are less responsive to the increased

default penalty compared with debtors without adverse life events. These findings are consistent with the idea that liquidity constraints (e.g., created by adverse life events) and strategic motivations can induce borrowers to default, and liquidity-constrained debtors are less able to respond to any strategic motivation.

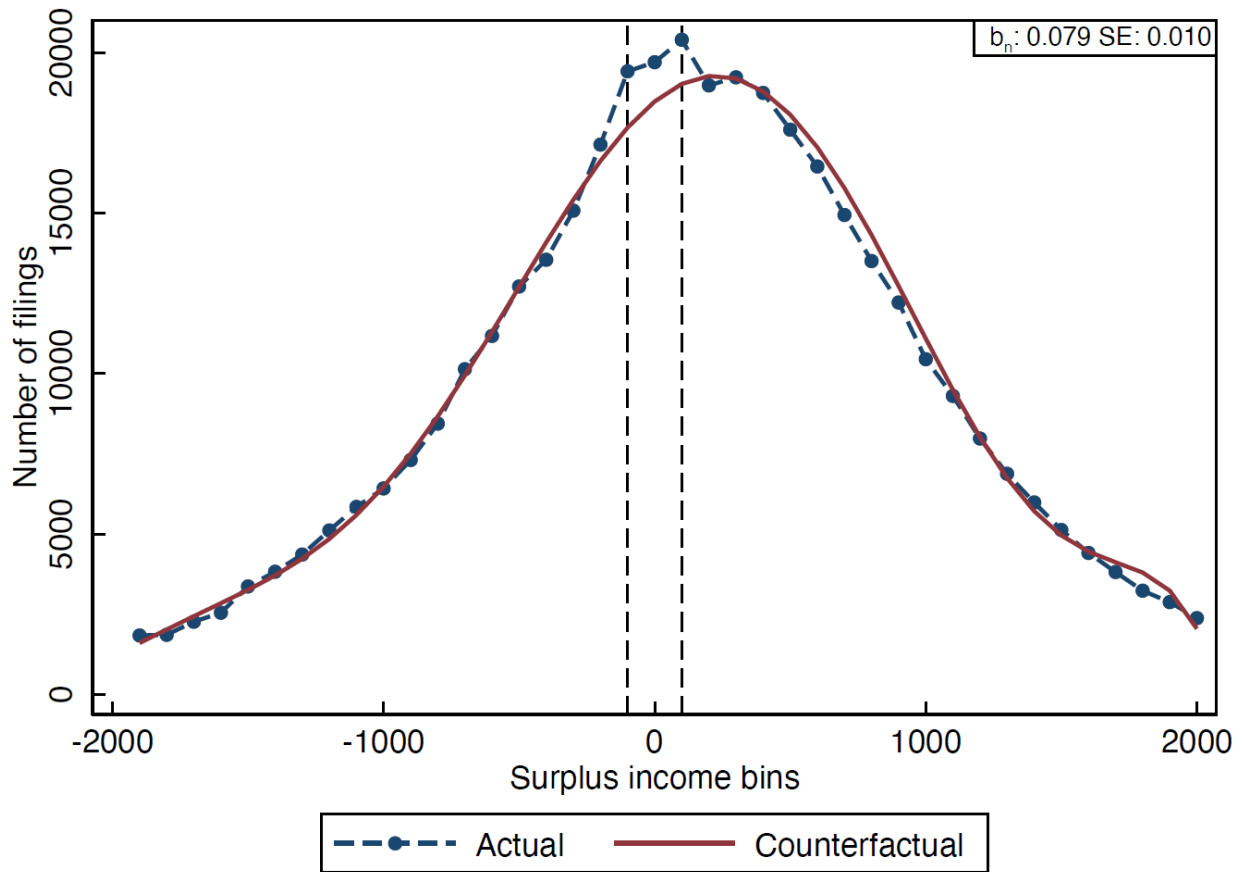
Overall, our results show that increasing the penalty for default reduces default on debt repayment plans, even in the middle of a financial crisis. Discharging debts in consumer bankruptcy has costs for lenders and consumers. More relief in bankruptcy to those who are not willing to pay their debts (the “won’t pay”) when we intend to target those who “can’t pay” increases the costs of credit for most borrowers. In this sense, liquidity-based policy interventions, such as debt forgiveness or forbearance, may be less cost effective when some debtors default despite having resources to avoid this outcome. Policymakers may need to take this into account when designing and implementing crisis mitigation policies.

Debtor Income Manipulation in Consumer Credit Contracts

While in the previous section, we discussed how the 2009 bankruptcy reform in Canada affected existing consumer proposals, in this section, we discuss the effect of this reform on new proposal filings. As we explained in the previous section, the 2009 reform introduced a big incentive to misreport income for debtors with a SI greater than or equal to \$200.

Using this natural experiment, we examine how debtors reacted to the increased incentive to strategically manipulate income. To obtain a sense of how many borrowers might misreport their income, we focus on the reported income distribution of filers around the \$200 SI cutoff. If no borrowers misreported their income, the distribution of filings should be smooth around the \$200 SI cutoff (see the red line in Figure 2). A jump in the distribution to the left of the cutoff would indicate that some filers are misreporting their SI to “bunch” on the more advantageous side of the cutoff. Using this idea, we show that the higher debt repayment requirement leads to bunching responsible for 7.9 percent of post-reform filings just below the \$200 SI cutoff (see the blue dashed line in Figure 2). This result confirms that some insolvent debtors respond strategically to the increased incentive to avoid higher income-contingent payments by manipulating their reported SI downward. And it provides a quantitative estimate of the size of this problem.

Figure 2: Distribution of Surplus Income and Estimation of Bunching Magnitude



By strategically reporting lower SIs, these strategic bunching filers may retain additional “hidden” income which, in turn, may provide additional liquidity and reduce their likelihood of default in bad periods. We show that debtors who manipulate income indeed are less likely to default on their repayment plans relative to their peers. This is consistent with these strategic debtors having extra “hidden” income that allows them to reduce their long-term default rate on proposal repayment plans.

The strategic income manipulation we document implies that some debtors repay a lower proportion of their debts, which may induce losses to their creditors. Using our repayment data, we calculate two estimates of creditor loss by comparing the repayment amount paid to creditors by bunchers with what the bunchers would hypothetically have paid if they had not misreported their SI. Our findings suggest that creditors lose between 12 percent to 36 percent of their total repayment amount per filing because of manipulated SI.

Based on our research, we offer a few implications. First, our findings highlight the potentially problematic incentives created by regulatory discontinuities and thresholds. Such discontinuities can induce borrowers to strategically manipulate the information they disclose, which may lead to credit market distortions. We also show that debtors can manipulate their income and other financial information downward, in contrast to findings in the previous literature documenting that some debtors inflate their financial position. Our findings imply that regulators should consider carefully how (rather than if) market participants may react to regulatory thresholds by strategically manipulating the information they report. Similar incentives exist in other environments (e.g., means-tested benefit programs, wage garnishment schedules, mortgage markets thresholds), and this conclusion also may apply to them.

Second, our paper highlights the potentially unintended consequences of regulatory attempts to increase debtor repayments to creditors. Prior literature has documented that requiring debtors to repay more to their creditors leads to debtors' financial distress and default. We focus on the incentive for some debtors to strategically manipulate the information they disclose as a previously undocumented response to such regulation. Our findings suggest that requiring higher income-contingent payments from debtors may unintentionally generate increased avoidance of such payments and, in doing so, be costly to creditors. In turn, our findings reinforce the importance of research informing policymaking as a mechanism to better understand and reduce the possibility of unintended consequences.