



Research article

The insolvency choice during an economic crisis: the case of Canada

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Abstract: Total insolvencies filed by Canadian Households reached a record number in 2009 when close to 152,000 individuals sought the protection of the Bankruptcy and Insolvency Act. This paper aims to investigate the factors that dictate the choice of insolvent debtors during an economic crisis, by comparing their choice before, during and after the crisis. Using data provided by the Office of the Superintendent of Bankruptcy, and in addition to explain insolvency choice by the debtor's wealth, income and level of debt, the results show that insolvent debtors are more likely to file for bankruptcy during an economic crisis than before and after. This is in fact, a significant contribution to the literature, for never before had debtors' insolvency choice been looked at in light of the effects of an economic crisis.

Keywords: bankruptcy; proposal; recession; debtor; choice

JEL Codes: G33, G38

1. Introduction

Over the last decades, the proportion of Canadians who access the insolvency system to get rid of their debt has constantly increased. In twenty years, the number of insolvencies filed with the Office of the Superintendent of Bankruptcy (OSB) has doubled, going from roughly 68,000 files in 1995 to 126,000 files in 2016. Total insolvencies filed by Canadian Households reached a record number in 2009 when, under the pulse of the 2008–2009 crisis, close to 152,000 individuals sought the protection of the Bankruptcy and Insolvency Act (BIA). During that period, the proportion of insolvent debtors

who picked proposal over bankruptcy¹ reached its lowest level before rising up again the subsequent years to new heights. Between 2007 and 2015, the share of proposals in total insolvency files increased by more than twofold, going from 21.2% in 2007 to 47.9% in 2015. Although this increase observed in the proportion of proposals is widespread, it is not identical throughout the country. It is relatively low in the Atlantic Provinces, moderate in Quebec and very high in Ontario and the western Provinces. It is true that the 2009 amendments to the BIA, whose coming into force coincided with the economic recovery, now enabled a group of debtors who were not eligible before due to their level of debt, to file a consumer proposal² (Allen and Basiri, 2018). However, those changes are far from explaining the deep drop in bankruptcy filings coupled with steep rise in consumer proposals observed during that period. The BIA is a federal law that is applied equally all over the country, the amendments do not seem to explain the gap observed in the proportion of proposals between the provinces, or even between regions. As a regulator, the OSB has the responsibility to make sure that not only the insolvency system is accessible to all “*honest but unfortunate*”³ debtors, but also that creditors received the maximum dividend possible from the estates of those who have recourse to the insolvency system.

After reviewing the changes made to the bankruptcy law in the United States in 2005, Currie (2009) supposes that, instead of playing the mere function of a debt collection law, the insolvency system should play an important social insurance function, where the other social security tools fail. Beyond this social function, we consider that the insolvency system can be used as a two-edge sword. On the one hand it can be used as a socioeconomic stabilization tool that mitigates the effects of economic crises, and on the other hand, as an irritant that can worsen their social, economic and financial effects. In this paper we investigate the factors that dictate the choice of insolvent debtors during an economic crisis, by comparing their choice before, during and after the crisis.

The insolvency data used in the paper is provided by the OSB, which is the federal agency responsible for maintaining a public record on insolvencies filed in Canada. We collect a random sample of 58,811 files, which represents 10% of all the insolvencies filed each year between January 2007 and December 2011. In addition to explain insolvency choice by the debtor’s wealth, income and level of debt, the results show that insolvent debtors are more likely to file for bankruptcy during an economic crisis than before and after. This is in fact, a significant contribution to the literature, for never before had debtors’ insolvency choice been looked at in light of the effects of an economic crisis.

Moreover, the results obtained show that, compared to the region of Quebec, significant differences were observed only for the Atlantic region. So, we found no significant differences between the West and the Ontario regions compared to the Quebec region. Our analysis leads us to conclude that regional macroeconomic characteristics are diluted by debtors’ regional microeconomic characteristics.

¹The Canadian insolvency system offers two alternative paths to insolvent debtors: bankruptcy and proposal. While debtors who file for bankruptcy are required to turn over all their non-exempt assets to the Licensed Insolvency Trustee (LIT), those who file a proposal negotiate with their creditors a partial or total repayment plan which can be established over up to 60 months.

²Before the 2009 amendments, the debt ceiling for a consumer proposal was \$75,000 for one person and \$150,000 for a couple, excluding outstanding debt on hypothec or mortgage on principal residence. With the amendments, the ceiling was raised to \$250,000 for one person and \$500,000 for a couple.

³The expression “honest but unfortunate debtor” is borrowed from the OSB and the court lexicon and does not call for a value judgment.

This paper is organized as follows. The literature review is discussed at the second section. Section 3 presents the qualitative choice model. Section 4 analyzes the data, and the empirical results are presented at the fifth section. Finally, section 6 concludes our analysis.

2. Literature review

The literature on the costs and benefits of filing for insolvency is relatively abundant, but few papers look at the elements that can explain insolvent debtors' choice between different alternatives. For Fay et al. (2002), this deficiency can rather be explained by a lack of data on insolvent debtors who use the insolvency system. The rare papers that investigate this matter are divided in three streams, which can be placed in three specific historical contexts.

First, we have those who see the recourse to the insolvency system as the result of a strategy that the end game is to maximize the debtor's wellbeing. Although they recognize that not all debtors use the insolvency system as the solution to their debt issues, these works suggest that those who use the insolvency system decide which of its mechanisms could provide them the best economic outcome. In this category, we have the works of Braucher (1993), White (1998), Domowitz and Sartain (1999), Fay et al. (2002), Gross and Souleles (2002), Agarwal et al. (2003) and Athreya (2004). In fact, all of these papers were produced in the US before the 2005 reforms of the American bankruptcy law and reflect the situation that prevailed at the time where insolvent debtors could freely decide the proceeding (chapter) that fitted their needs. The conclusions of some of these papers influenced, in fact, those reforms that clearly serve the interest of creditors while worsening the debtors stand.

Next, we find a set of papers who see the insolvency system as a last resort response either to a financial, economic, social or health failure. According to this perspective, debtors cannot decide their insolvency choice. Those who are unable to repay their debt can only choose the form of default they want to use, which amount only to insolvency or ignoring their debt. For the proponents of this view, the recourse to the insolvency system is the result of a spontaneous and not strategic decision. In this category, we find the works of Sullivan et al. (2006), Dick et al. (2008), Cohen-Cole and Duygan-Bump (2009) and Livshits et al. (2010), mainly on insolvency stigma hypothesis which argues that debtors' only concern when face with the prospective of filing for insolvency is their social status. In this perspective, when a debtor decides to use the insolvency system, the insolvency choice is provided by the system based on the debtor's personal situation. Those works that were all conducted in the US after the 2005 amendments reveal the depth of the reforms, whose main objective would be, according to some, to limit the access to the insolvency system and reduce the growing number of abuses observed over the years.

Finally, in the middle is another group who explain insolvency choice either by the cultural or religious background of the debtors. In this category, we find the works of Efrat (2004) and Beck et al. (2014). The works of Efrat (2004) rest on the difference established between what some authors call the "*formal law*", which correspond to the law of the book, and the law of action, which is considered as the way the formal law is applied in different regions of a country. Analyzing the case of Israel, he concludes that internal legal culture of a country has an important impact on the implementation of legislative reforms, in general, and on the bankruptcy law, in particular. He further explains that the values, the attitudes, the beliefs shared by the key persons of the insolvency system in Israel play a fundamental role in defining the practice in use in the insolvency system of that country. For their part, Beck et al. (2014) analyzed the proportion of debtors who file under chapter 7

(equivalent of bankruptcy in Canada) compared to those who file under chapter 13 (equivalent of proposal in Canada). They conclude that religion is the main factor explaining the high proportion of debtors filing for bankruptcy under chapter 13 in the southern states, mostly evangelical and fundamentalists, compared to the rest of the country. They explain that the choice between chapter 7 and chapter 8 constitutes a moral one as to the obligation for a debtor whether to repay their debt or not. Therefore, since morale and religious values are closely related to religious beliefs, religion is then paramount in the insolvency choice of the debtor.

Despite the relevance of all of these cited papers, none of them have examined the determinants of insolvency choice in different economic contexts. The main contribution of our paper is to fill this void and to shed empirical light on this issue.

3. Methodology

The potential variables affecting the insolvency choice of insolvent debtors having been identified, we will now be drawing an empirical model of qualitative choice to explain how debtors choose between bankruptcy and proposal. This approach should enable us to understand and comment insolvent debtors' choice in different circumstances through Canadian provinces. In fact, with respect to exemptions in bankruptcy, contrary to a country like the United States where a debtor can choose either the state or the federal Exemptions, in Canada, only the provincial exemptions apply, and they differ largely from one province to another. To account for differences in legal provisions between the Canadian provinces, we have recourse a nested logit model. The utility function to maximize is written as follows:

$$U_n^i = V_n^i + \varepsilon_n^i \quad (1)$$

where i and n represents respectively the insolvency choice and the insolvent debtor. In this equation, i can take two values: 1, 2. If $i = 1$, the insolvent debtor chooses bankruptcy. If $i = 2$, the insolvent debtor chooses proposal.

The error terms ε_{1n} and ε_{2n} are taken to be distributed according to Gumbel extreme value type B with correlation coefficient $1-\beta^2$, for all $0 < \beta \leq 1$. The random perturbation ε_0 is taken to follow a Weibull distribution.

According to McFadden (1981), the probability for an insolvent debtor to choose bankruptcy, conditional to the accession of the insolvency system is given:

$$P(i = 1|z_n) = \frac{e^{(V_n^1/\beta)}}{e^{(V_n^0/\beta)} + e^{(V_n^1/\beta)}} \quad (2)$$

Here, z_n represents the information set revealed to the insolvent debtor and upon which is based the decision to choose between bankruptcy and proposal.

The criterion governing the choice between bankruptcy and proposal deduced from Manski and McFadden (1981)'s estimator for choice-based sampling:

$$L_1(\theta_1) = \sum_{n=1}^N \ln \frac{P(i_n|z_n, \theta_1)\omega_i}{\sum_{j \in C} P(j_n|z_n, \theta_1)\omega_j} \quad (3)$$

$P(i_n|z_n, \theta_1)$: is the conditional probability of the n^{th} debtor to choose the alternative i from the set $S = \{1, 2\}$, given the information set z_n and a parameter vector θ_1 .

According to Manski and McFadden (1981), ω_i is given: $\omega_i = H_i/Q_i$ where H_i is the distribution according to which the choice is sampled and Q_i is the population distribution of choice i , conditional on θ_1 . Finally, the information set in equation (2) is parametrized to provide:

$$\mu_{in} = X'_n\beta + Z'_n\alpha \quad i = 1, 2 \quad (4)$$

While the vector X is formed of variables indicating the debtor and their financial status, Z is formed of the variables indicating the characteristics of bankruptcy and proposal that may be pertinent to the debtor's choice. For their part, $\beta = (\beta_1, \beta_2 \dots \beta_K)$ and $\alpha = (\alpha_1, \alpha_2, \dots \alpha_K)$ are vectors composed of $K \times 1$ coefficients to be estimated.

We have a finite sample of individuals that choose between bankruptcy and proposal, and what we observe is not the probabilities but rather the actual choices. We will use the method of maximum likelihood to estimate the parameters β and α .

The insolvency data used in the paper is provided by the OSB, which is the federal agency responsible for maintaining a public record on insolvencies filed in Canada⁴. When an insolvent debtor decides to file for insolvency, the BIA requires the LIT to complete two initial forms: a Statement of Affairs (SA), also known as form 79, and a Statement of Income and Expenses (SIE), which is also called forms 65. Along with these two forms, we find a third one called Estate Information Statement (EIS), which contains other information, such as language, occupation, nature of debts, etc. is filed with the OSB. Although the EIS is not statutory, it forms part of the initial documents that are provided at the filing, and the LIT is required to submit it for the estate to be processed. All the financial and sociodemographic variables used in this paper are collected from these forms. Beginning in 2003, the OSB launched an electronic data collection process that completed in 2007 when all insolvencies were filed electronically. Each insolvency file is associated with a file number, which prevents the identification of the filer. We collect a random sample of 58,811 files, which represents 10% of all the insolvencies filed each year between January 2007 and December 2011. It is important to note that we are dealing here with cross sectional data. Therefore, the filing date is used only to determine the recession periods, and that debtors who file for insolvency at a certain period do not necessarily have anything to do with those who file at a different period. Repeat filings, sometimes, occur many years apart, and in this dataset no debtor happens to file more than once during the period under study.

From a theoretical viewpoint, we know that the last recession lasted for a total of three quarters in Canada, that is, from the fourth quarter of 2008 to the second quarter of 2009. However, from a practical standpoint, we believe that the effects of the great recession on insolvency filings lasted longer than that. Following Amine and Predelus (2019)'s account that the impacts of a recession last fourteen months on consumer insolvency filings in Canada and given that Canada was in recession up until June 2009, we then conclude that the impacts of the great recession on insolvency filings lasted until August 2010. As for the post recession period, to capture all the emotion of the crisis, it covers the period going from September 1st, 2010 to December 31, 2011. For its part, the pre-recession period goes from January 1st, 2007 to September 30th, 2008.

Using our data, we obtain the distributions of the insolvency files by period. Of the 58,811 files, 24.3% were proposals and 75.7% were bankruptcies. In all, 29.8% were filed during the pre-recession

⁴Research data are not shared. Researchers wishing to access the data should make a request to the OSB.

period, 43.5% during the recession period and 26.7% during the post-recession period. While proposals accounted for 18.3% of the insolvencies filed during the pre-recession period, they represent 23.1% of the insolvencies filed during the recession period and 33% of the files submitted during the post-recession period.

The financial variables: asset, liability, and income, were all converted in 2007 dollars to take into consideration the effect of inflation. The asset regroups cash in hand (at filing), furniture, personal effects, cash surrender, security, house, cottage, land, automobile, motorcycle, snowmobile, other motor vehicles, recreational equipment, estimated tax refund and other assets. The debt includes real property mortgage, bank loans (except real property mortgage), finance company loans, credit cards bank/trust company issuers, credit cards - other issuers, taxes - federal/provincial/municipal, student loans, loans from individuals and other liability (see Appendix A).

As for the income, we have the debtor's monthly net income and the family monthly net income. During the insolvency filing, only the insolvent debtor is required by law to disclose their income to the LIT. As a result, when two people are in a marital relationship and only one spouse files for insolvency, the other spouse and other dependent may refuse to disclose their income in the process. Debtor's income originates from one or more of the following sources: employment income, self-employment income, pension/annuity, child support, spousal support, employment insurance benefits and social assistance. As shown in Appendix A, only 4,534 or 7.7% of the 58,811 insolvencies were filed by debtors with a net annual income higher than \$40,000. In addition, the analysis of the data further reveals that the share of proposals in insolvencies filed by lower-income debtors is very small and increases with the individual annual net income. Beyond the \$40,000 mark of individual net annual income, the share of proposals in total insolvencies becomes higher than bankruptcies. As for the family annual net income, while the share of proposals in insolvencies is higher than bankruptcies beyond the \$50,000, only 9.2% of the insolvencies have such a high family net annual income. This confirms one of the observations made in our theoretical model, which predicts that insolvency would be less popular among higher-income and middle-income debtors who, when they used the insolvency system, tend to file a proposal rather than bankruptcy. In fact, since wealth is supposedly correlated with income and bankrupts are required to pay surplus income, in addition to turn over their non-exempt asset to the LIT, debtors with higher level of income are less likely to file for bankruptcy. For, if they can negotiate the terms a proposal with their creditors and keep all their asset when they file a proposal, they lose the control of their asset in the case of bankruptcy.

4. Results

The results of the regression are provided in Appendix B. After controlling for province of residence, year of filing, neighborhood of residence, and the causes of insolvency cited, the regression results indicate that, compared to the recession period, insolvent debtors were less likely to choose bankruptcy before and after the recession. In other words, bankruptcy is more attractive during the crisis than before and after the crisis. These results are central to our theoretical model which predicted that during an economic crisis, insolvent debtors are more likely to choose bankruptcy over a proposal because of the generally observed decline in their wealth during a crisis.

At the regional level, the results indicate that only debtors in the Atlantic region differ significantly from debtors in the Quebec region in terms of their choice of insolvency over the entire study period. These results therefore indicate that, except for the Atlantic region, the differences

observed in bankruptcy exemptions at the provincial level have no impact on the choice of insolvent debtors in these regions compared to those in the Quebec region.

Moreover, the following variables are negatively related to the likelihood of insolvent debtors to choose bankruptcy: family income, gender, homeownership, residence in the highest tercile of foreign-born population, repeat bankrupt, having an employment income, having a self-employment income and listing financial mismanagement as insolvency reason (Fisher and Yao, 2017; Hallahan et al., 2004; Xu et al., 2016).

For instance, living in urban area significantly affect the insolvency choice of a debtor. Indeed, insolvent debtors living in urban area were 23.4% less likely than those living in rural area to choose bankruptcy. While insolvent debtors living in the lowest tercile of foreign-born population were 41.9% more likely than those living in the middle tercile of foreign-born population to choose bankruptcy, those living in the highest tercile of foreign-born population were 47.4% less likely than the latter to choose bankruptcy. Compared to insolvent debtors living in the middle-income quintile neighbourhood, those living in the lowest-income quintile neighbourhood were 22% more likely and those from the highest income quintile neighbourhood were 8.3% less likely to choose bankruptcy. Therefore, we can conclude that the level of income is paramount in the choice of insolvent debtors who tends to choose proposal more often than bankruptcy. In fact, the model predicts that the probability to choose bankruptcy will fall by 4.2% if the net annual family income increases by \$1,000. Such a result had, indeed, been predicted by the theoretical model, and that, due to the obligation for the debtors who file for bankruptcy to use their future income to pay back a share of their debt in the form of surplus income. Considering this constraint and given that debtors with higher income tend to have a high level of wealth, the choice of becomes then less attractive in the presence of insolvency. This situation requires a further look at the finding regarding debtors living in the highest tercile of foreign-born population who are 47.4% less likely than those living in the middle tercile of foreign-born population to choose bankruptcy. If the strong presence of immigrants in a neighbourhood reduces the chance to choose bankruptcy relatively to proposal, is it due to cultural reasons in how immigrants perceive their financial obligations or to their level of wealth and/or income? In light to the findings of Picot and Lu (2017) who explain that low-income rate is higher among immigrants who arrived in Canada in the year 2000s than among native Canadians, we should rule in favour of the former. We suppose that culturally speaking, immigrants perceive indebtedness differently than native Canadians, which make them feel obligated to repay, at least partially, their debts, even in the presence of a lower wealth. As a result, we can conclude that insolvency choice is closely related to the culture of the insolvent debtor.

From a wealth standpoint, we further observe that homeownership reduces the chance to choose bankruptcy by 56.4%. This means that bankruptcy is less attractive than proposal when the debtor owns a house. Given that house constitutes the most important asset in the insolvency files, in terms of value, these results confirm one of the central hypotheses of our model that predicted a high level of wealth reduces the debtor's chance to choose bankruptcy. Moreover, while the debt-income and debt-asset ratios are positively related to the probability of filing for bankruptcy, the level of credit card debts is negatively related to the probability of filing for bankruptcy. These results reveal that the higher the debt level compared to income, the more likely the debtor will choose bankruptcy over proposal; and the higher the level of credit card debts, the less attractive is bankruptcy. Indeed, high level of credit card debts projects the image of a reckless debtor who spent creditors' money while knowing themselves to be insolvent. Therefore, to avoid the risk of their discharged in a possible

bankruptcy to be opposed, debtors with high level of credit card debts might try to propose a repayment plan to their creditors.

As for the sources of income of insolvent debtors, employment and self-employment income are found to be negatively related to the probability of choosing bankruptcy. For instance, debtors who declared an employment income were 33.1% and those who declared a self-employed income were 39.5% less likely to choose bankruptcy relatively to proposal. The closeness of these numbers indicates income originated from the labour market is determinant in the choice of insolvent debtors. Moreover, while debtors who declared an income from pension/annuity were 18.8% more likely to choose bankruptcy, employment insurance and social assistance recipients were respectively 6.1% and 64.7% more likely to choose bankruptcy. Income being negatively related to the probability of choosing bankruptcy, we can conclude that, on average, employment insurance recipients do better than pensioners who use the insolvency system (Amine and Predelus 2020). Likewise, pensioners a better off than social assistance recipients. In the case of the latter, the gap is even far larger, but it is still surprising to observe that social assistance recipients are able to make proposal, given their level of income. In all circumstances, the results indicate that debtors who make a proposal often do it to maintain the control of their asset.

Regarding the reason for insolvency, only “financial mismanagement” (10%) and “rejected proposals” (65.6%) were negatively related to the probability to choose bankruptcy relatively to proposal. Given that “financial mismanagement” constitutes no less than 60% of the reasons for insolvency cited by the debtors, even though the likelihoods are relatively low, the fact that it is negatively related to the choice of bankruptcy should be considered as good news for creditors. Furthermore, among the reasons for insolvency that are strongly related to the probability of filing a bankruptcy, we have: “tax debt” (twice more likely), “addiction, other than gambling” (56% more likely), “business failure” (45.1% more likely), “legal matters” (39.8% more likely) and “marital breakdown” (28.5% more likely). Contrary to results obtained for the USA, debtors who mentioned “health issues” as reason for insolvency came last with only 10.2% chance to choose bankruptcy over proposal. This result is not surprising when we know that, in general, compared to the Americans, Canadians do not have to take out their credit cards to have access to health care.

Moreover, while debtors who had already been bankrupt in their life were 83.1% less likely to choose bankruptcy, those who had only used the insolvency system were 4.2 times more likely to choose bankruptcy. These results lead to the conclusion that the choice of bankruptcy leaves such a bad taste that debtors are not attracted to it when they face another insolvency. In fact, this can be the result of either an undue imbalance between the alternatives or a change directly related to the debtor’s prior insolvency.

As for the debtor’s sociodemographic situation, let us begin to say that while age and the language are not significantly related to the insolvency choice, men were 11.4% less likely than women to choose bankruptcy. In addition, those who were in marital relationship were more likely than the other matrimonial statuses to choose bankruptcy. In fact, whereas the debtors who were in common law relationship were 9.6% more likely to choose bankruptcy, those who were single were 25.4% less likely and those who were divorced were 19% less likely to choose bankruptcy than those who were married. These findings indicate that if being in a marital relationship could increase the likelihood of having a second income that can reduce the probability to choose bankruptcy, when the family income is taken into account, debtors who are in a marital relationship are more likely to choose bankruptcy. This situation can be explained by the fact that insolvency debtors’ spouse who are not insolvent are not

legally required to disclose their income, which, therefore, is not used to calculate the surplus income to be paid by the bankrupt. In fact, if the spouse with the higher income is not bankrupt, they can decline to disclose their income to the LIT, and as a result, constrain the calculation of the surplus income from only one income, and therefore increase the financial benefit of a bankruptcy relatively to a proposal.

Furthermore, if the fact of not having a spouse reduces the probability of choosing bankruptcy, being a single parent increases it. In fact, compared to the other type of debtors, insolvent single parents were 33.9% more likely to choose bankruptcy. Such a situation can be understood in the sense that not only single parents have only one income, but also above all, they must care for dependents for whom most expenses are incompressible.

5. Conclusions

In a consumption- and credit-based economy, the insolvency system can play the role of an automatic stabilizer to counter the perverse effects of an economic and social crisis. However, for it to be effective in this role, it is important to have a good understanding of how debtors react to changes affecting their income, their consumption, and their wealth in order to ensure that its proposed tools are well suited to achieve what they called for.

In this paper, we assumed that insolvent debtors' choice is sensitive to economic crisis because the latter alters the value of non-exempt assets and reduce debtors' ability to repay their debts. We further assumed that the gaps in provincial exemption in bankruptcy matters could also have their role in decision process of insolvent debtors. The findings confirm that, compared to a recession period, insolvent debtors are less likely to choose bankruptcy during and after a recession. This fundamental result can be explained by the drop-in debtors' net value during an economic crisis. Furthermore, based on our assumptions, we expected to observe important differences between the regions, given that the amplitude of an economic crisis is not necessarily uniform throughout the Canadian provinces. Another element that could explain the existence of differences between the provinces is the legal culture or the predominant religion as observed by Braucher (1993), Effrat (2004) and Beck et al. (2014). The results obtained show that, compared to the region of Quebec, significant differences were observed only for the Atlantic region. So, we found no significant differences between the West and the Ontario regions compared to the Quebec region. Our analysis leads us to conclude that regional macroeconomic characteristics are diluted by debtors' regional microeconomic characteristics; a result that was not foreseeable. Furthermore, the results confirm our assumption that debtors' insolvency choice closely related to their wealth and their income. The higher the wealth and/or the income, the more attractive is proposal, and vice versa. In the same vein, while secured debts are negatively related to the probability to choose bankruptcy, unsecured debts are positively related to bankruptcy, which leads us to conclude that some debtors act strategically.

Indeed, if insolvency can relax the budget constraint of insolvent debtors and increase demand in the economy, this should not be done to the expense of those who manage to pay back their debt.

Conflict of interest

All authors declare no conflicts of interest in this paper.

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