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Financial difficulties and economic recession: Evidence from Canadian seniors

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Abstract. *Pressured by financial difficulties and the relatively low income from participating in the labour market, many seniors become insolvent. In this article, we analyze the financial situation facing Canadian seniors who have accessed the insolvency system due to a deterioration in their socio-economic and financial conditions, particularly since the 2008 economic crisis. Using federal statistical data, we observed that seniors who used the insolvency system during the recession period were more indebted than those who accessed it before, and less indebted than those who accessed it after the recession.*

Keywords: seniors, income, asset, debt, recession.

JEL Classification: C32, G33, G51.

1. Introduction

The empirical and theoretical literature has extensively studied the effects of the economic crisis on the various socio-professional categories especially young and the less skilled (Agarwal et al., 2003; Garrett and Wall, 2014; Livshits et al., 2010; OECD, 2016; Mian et al., 2017; Piketty, 2019; Rampini, 2005). Nevertheless, the impact of an economic recession on the financial situation of the seniors has been little discussed in the literature (Amine and Predelus, 2020).

Indeed, western countries have embarked on a process of reforms to absorb the budget deficit and reduce the accumulation of public debt (OECD, 2013). Pension reforms, which are part thereof, have been readjusted without taking into account the financial consequences of the aging workforce as observed in most developed countries.

In this context, faced with financial difficulties and barriers to higher returns from their professional engagement, many seniors find themselves unable to meet their obligations with respect to mortgage and living expenses. As such, they turn towards the insolvency system in search of relief from their debt load. The Canadian insolvency system provides two solutions: outright bankruptcy or proposal, with the latter allowing insolvent debtors to keep most of their asset while paying only a portion of their debts. Filing for bankruptcy, on the other hand, requires insolvent debtors to hand over the portion of their asset that is not exempt by law to a Licensed Insolvency Trustee (LIT), who will in turn liquidate the assets and distribute the proceeds among eligible creditors. In the Canadian insolvency system, the decision to file either for bankruptcy or proposal rests solely with the insolvent debtor, though failure to file a proposal where it can be established they were financially capable of doing so, is ground for opposition of their discharge in bankruptcy under Canada's Bankruptcy and Insolvency Act (BIA) (Predelus and Amine, 2022). However, the maximum debt allowed in a consumer proposal is \$ 250,000 – minus the outstanding debt on principal residence. While first time bankrupts can be eligible for an automatic discharge after nine months in the absence of surplus income, and twenty-one months where surplus income is required, the terms of a proposal cannot go beyond sixty months.

In this article, we determine and analyze the factors characterizing Canadian seniors who accessed the insolvency system around the period of the 2008-2009 recession to assess impact of the crisis on their financial situation. Using federal data on insolvencies filed in Canada, we observed that seniors who used the insolvency system during the recession period were more indebted than those who accessed it before, and less indebted than those who accessed it after the recession. When we look at their income, we further observed that those who live in high and middle-income neighbourhoods or with higher income tend to carry more debt.

The rest of the article is organized as follows. We explain the data used before presenting the main results of our empirical analysis. Finally, the paper is concluded in section 4.

2. Data

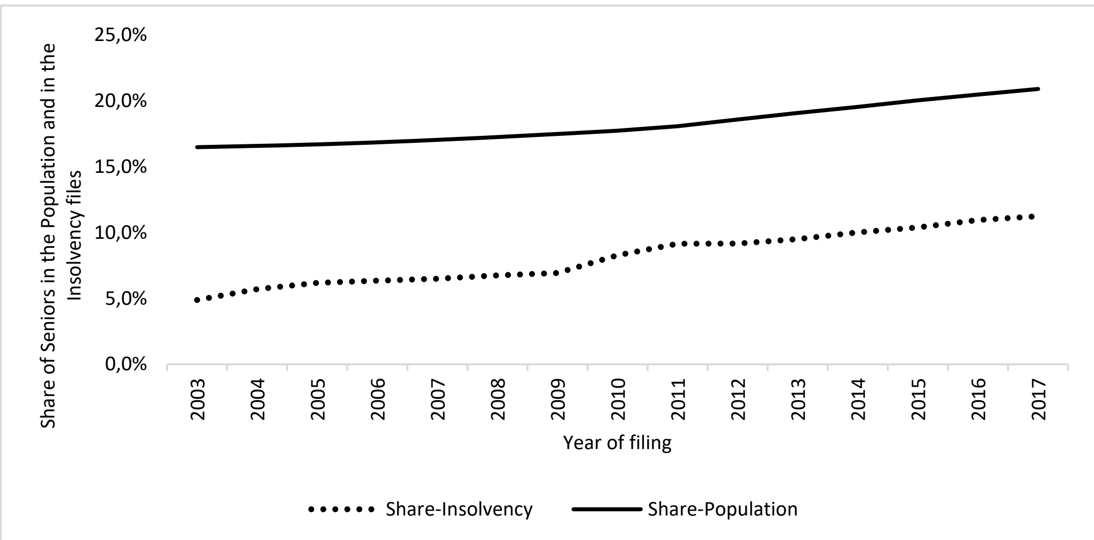
The data used in this article was collected from two different sources. The data on the population comes from Statistics Canada, whereas the insolvency data is produced by the Office of the Superintendent of Bankruptcy (OSB). The OSB is the federal agency responsible for supervising the administration of insolvency files in Canada. It processes insolvency filings and collects socioeconomic data (age, gender, marital status, employment status. etc.), financial data (asset, liability, income, expenses, etc.) and geographic data (province, city, postal code, etc.) from insolvent debtors who access the insolvency system.

The part of the data that covers insolvency volumes, assets and liabilities comprises all consumer debtors who accessed the insolvency system between 2003 and 2017. Data on the income of seniors is taken from a sample of 4,510 insolvencies filed by Canadians aged 65 or over. This data is extracted from a sample of 58,948 insolvencies filed between 2007 and 2011 by individuals of all age groups. All the monetary variables have been adjusted for inflation based on 2003 dollars.

The primary objective of the Canadian insolvency system is to offer a fresh start to honest but unfortunate debtors. However, it is virtually impossible for seniors to take advantage of the "second chance" following an insolvency filing given their old age. It follows that the situation is even grimmer for seniors who are obliged to choose bankruptcy over proposal because.

In fact, while a proposal enables them to keep most of their asset while paying back only a percentage of their debt, filing for bankruptcy requires that they turn over the share of their asset that is not exempt to the Licensed Insolvency Trustee (LIT).

Figure 1. *Share of seniors in the population and in insolvency files (2003-2017)*



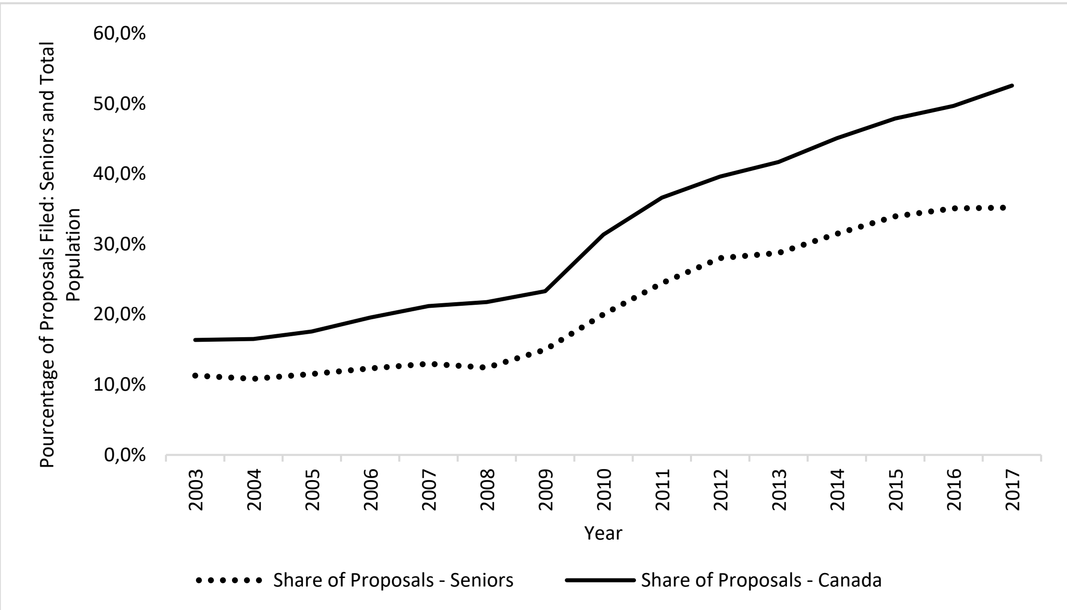
Source: Statistics Canada and the Office of the Superintendent of Bankruptcy.

Over the last 15 years, while the share of insolvencies filed by seniors in Canada has increased at a relatively identical pace as their share in the total population aged of 18 years old and over (Figure 1), the share of proposals in insolvencies filed by seniors has decreased relative to that of the population average (Figure 2).

In 2003, no less than 11.3% of insolvencies filed by seniors in Canada were proposals, compared to 16.5% for the total population aged of 18 years old and over. However, by 2017, the proportion of proposals filed seniors who sat at 35.2% while that of the total population was 52.6%. The gap then grew from 5.2 percentage points to 17.4 percentage points. This thus indicates that Canadian seniors are proportionally less likely to file for proposals than the general population, which in turn means that they are in fact more likely to file for bankruptcy, turning over almost all their asset to the LIT. Of note, the deterioration of the senior's financial well-being does not seem to be related to the performance of the financial market, which was enjoying an all-time high during the same period.

Given that proposals, in general, require that a debtor have sufficient income to pay periodic payments as a result of the agreement with the creditors, the lower percentage of seniors who choose to file for proposals instead of bankruptcy indicates that they face a more dire financial situation that the average debtor. Therefore, if we assume that the behaviour of seniors is not different from the rest of the population, we may conclude that the purchasing power of senior is weaker than the population average.

Figure 2. *Share of proposals filed by seniors and the general population (2003-2017)*

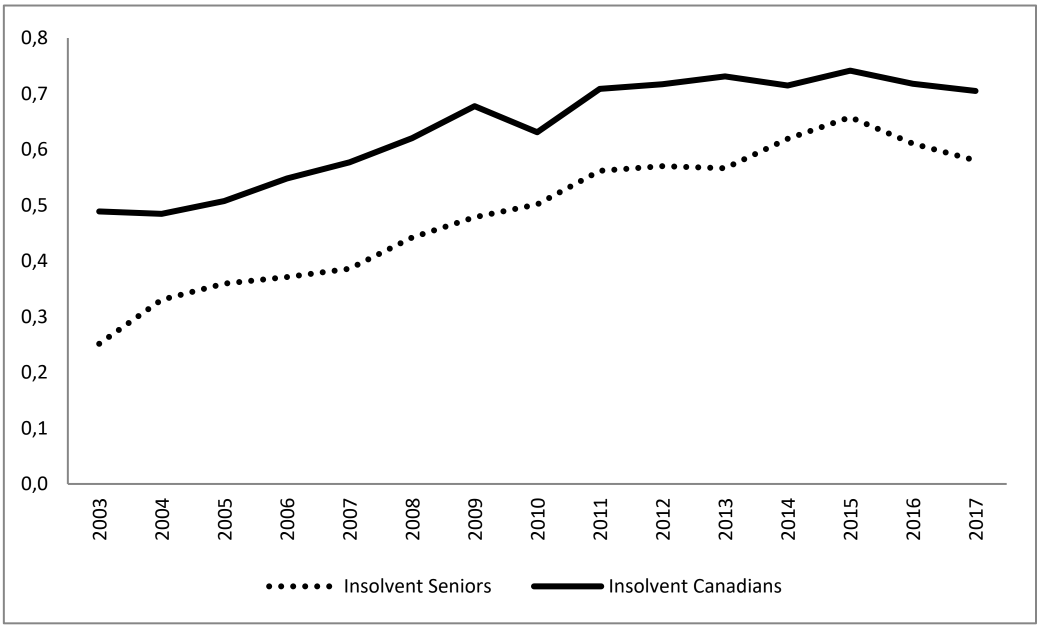


Source: Statistics Canada and the Office of the Superintendent of Bankruptcy.

2.1. The asset of insolvent seniors

Although the asset declared by insolvent seniors increased faster than their debt up until 2015, they have been in a worse financial shape than the general insolvent population in Canada for over 10 years. Moreover, relatively to their asset, seniors are in general more indebted than the rest of the Canadian population who accessed the insolvency system over the period in question. Despite a deceleration observed in the asset-debt ratio starting in 2016, the financial situation of the both the seniors and the general population has worsened over the recent years, a trend which is even more pronounced for seniors when compared to the rest of the population (see Figure 3).

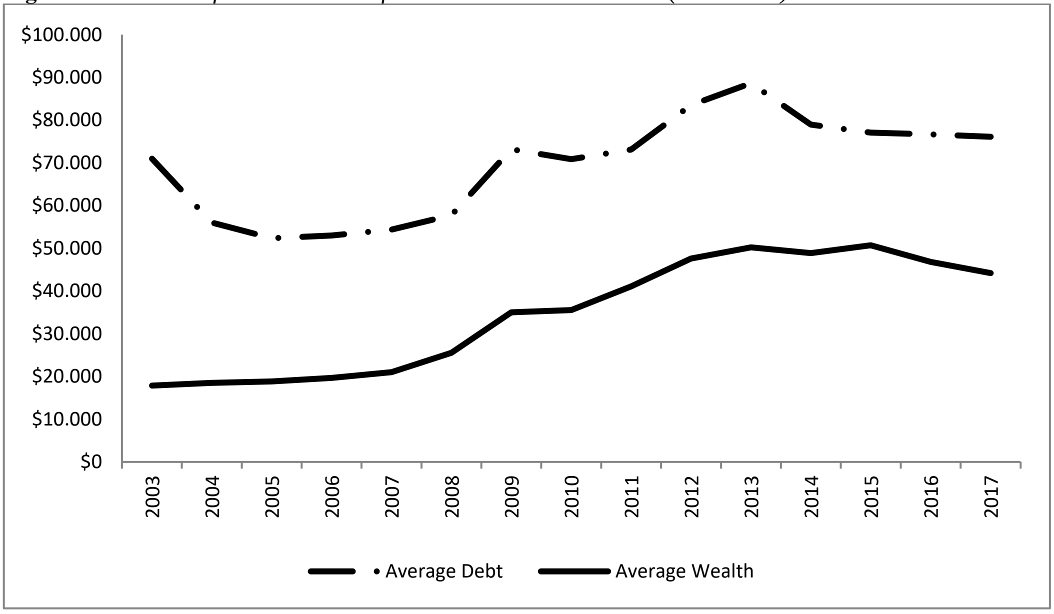
Figure 3. *Evolution of the asset-debt ratio of insolvent seniors in Canada (2003-2017)*



Source: Office of the Superintendent of Bankruptcy.

Figure 3 shows that the drop in the asset-debt ratio (Figure 3) seems to be the result of a decrease in the average asset declared by insolvent seniors over the last two years. In addition, both the average debt level and asset were at a peak for insolvent seniors around 2009 at the height of the last economic crisis in Canada. This suggests that the economic crisis was so severe that relatively wealthy people, who had previously managed to remain solvent due to their assets, ended up being insolvent during this period. Not surprisingly, the volume of insolvencies filed by seniors remained high until 2013, as shown in Figure 4, as many only accessed the insolvency system as the last resort following a prolonged period of financial distress.

Figure 4. *Evolution of debt and asset of insolvent seniors in Canada (2003-2017)*



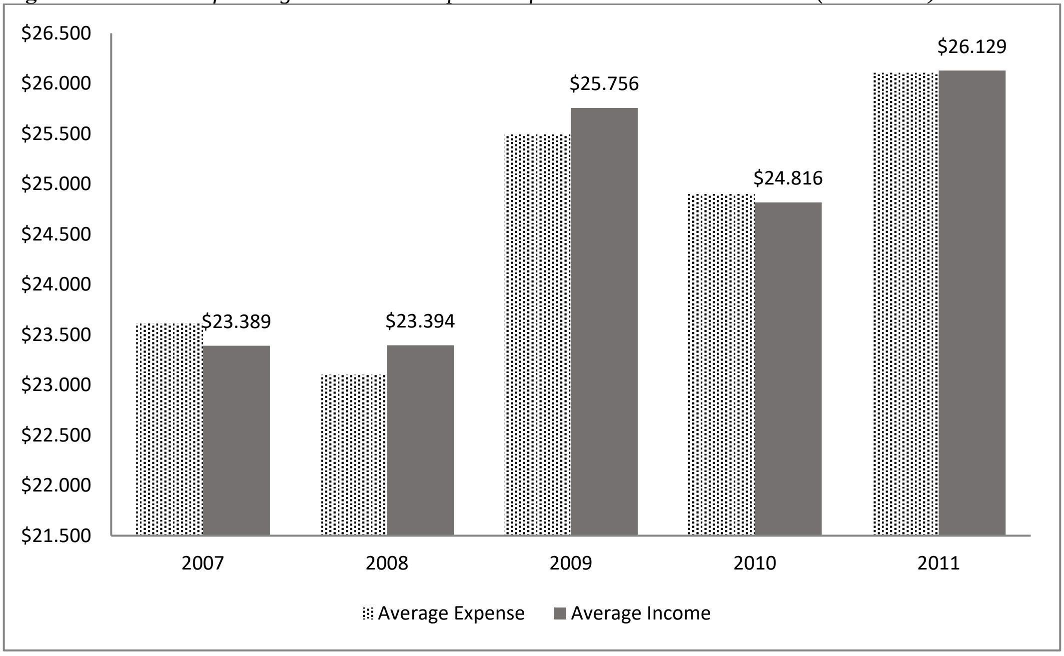
Source: Office of the Superintendent of Bankruptcy.

2.2. The income of insolvent seniors

An analysis of the income and expenses declared by seniors who accessed the insolvency system from 2007 to 2011 reveals that between 32% and 38% of them live with a net income grossly insufficient to cover their expenses excluding debt and interest repayment. While between 42% and 54% of these debtors declared an income that was just enough to cover their living expenses, only 14% to 21% were able to cover their living expenses and continue to service, at least partly, their debts. In fact, between the years 2007 and 2008, the average income of insolvent seniors remained stable at $23,389 before rising by 11% in 2009 to $25,760 (see Figure 5).

This sudden and relatively significant increase in the income declared by insolvent seniors can be understood as a direct consequence of the 2008-2009 recession, which, inevitably, led the relatively wealthier seniors down the path of insolvency (Amine and Predelus, 2019). This cohort of insolvent seniors actually reported a higher income than their counterparts who filed for insolvency before the recession. If the relative decrease in the average income of insolvent seniors observed in 2010 may explain a slow return to the pre-recession trend, the increase registered in 2011 sends an alarming signal about the state of financial well-being of seniors in Canada: the successive cohorts of senior citizen debtors report a rising level of income. It therefore follows that not only have the financial woes worsened among seniors, but they have also spread to a much wider range of income groups.

Figure 5. *Evolution of average income and expenses of insolvent seniors in Canada (2007-2011)*



Source: Office of the Superintendent of Bankruptcy.

In light of these facts, we look at the sources of income declared by insolvent seniors who accessed the insolvency system. Between 2007 and 2011 the share of insolvent seniors who declared an income from labour market activities fluctuated between 11.5% and 14.8%. These numbers indicate a deterioration in the financial well-being of seniors who, in some instances, had to return to the labour market to earn an income in a bid to avoid insolvency.

On the other hand, when we look at the reasons for financial difficulties mentioned by insolvent seniors, there is no doubt that, due to the liberalization of credit, even seniors with sufficient income remain financially vulnerable if they are not financially literate. In fact, among the most common reasons for financial difficulties declared by senior citizen debtors between 2007 and 2011, "financial mismanagement" is cited by no less than 72% of them, which is followed by "loss of income" (25%) and "medical reasons" (22%). While insufficient income alone could lead inevitably to insolvency, when it is coupled with financial mismanagement, it would be a financial disaster. This may explain why individuals who are supposed to be retired indicate "loss of income" as main reason for financial difficulties in no less than 25% of the cases.

3. Empirical analysis

Now that we have observed the trends in seniors' asset and income before, during and after the great recession, we are going to determine the factors associated with their indebtedness. To do so, we use the Ordinary Least Square method to estimate the following model:

$$Y_i = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \dots + \beta_k x_{ik} + \varepsilon$$

where:
Y: represents the total debt reported by seniors at filing;
x_1, x_2, x_3, …, x_k: represent the explanatory variables, such as: region of residence, income, expenses, homeownership, gender, marital status, age, official language, etc.;
i: the individuals.

Given there is no established theory on the factors associated with indebtedness, we decide to use the income and expenses, the reasons for financial difficulties, the sources of income declared by seniors in their statement of affairs and their statement of income and expense. We also look whether situations like homeownership or business ownership can explain indebtedness among Canadian seniors. The results of the model are provided in the annex section.

After controlling for their neighbourhood of residence, their gender, their marital status and their reasons for insolvency, we observe that seniors' indebtedness has been on the rise since the last recession. In fact, compared to the recession period, seniors who filed for insolvency were less indebted before and more indebted after the recession period. For instance, while those who filed for insolvency had on average 13.9% less debt before the recession than during the recession, post-recession filers had 3.2% more debt than those who filed during the recession. The rise in seniors' indebtedness is consistent with the trends observed in overall consumer's debt in Canada over the last decade.

On the geographical side, the results show that insolvent seniors in the region of Quebec had on average higher debt than seniors in any other part of the country. For instance, while those in the Atlantic region had on average 32.1% less debt than those in the Quebec region, those in the Western region had 22.5% and those in Ontario 12.4% less indebted. These results unveil a rather troubling picture for seniors in the Quebec region where general statistics oftentimes show Quebecers carrying less debt than other Canadians.

When we look at the presence of immigrant in insolvent seniors' neighbourhood, we further observe that the more immigrants in the neighbourhood, the lower the level of debt reported in seniors' insolvency files. For example, while seniors from the lowest tercile of foreign-born population had on average 8.3% less debt than those from the middle tercile, those from the highest tercile had 9% more debt than the latter. When read in light of the findings of Picot and Lu (2017) regarding the rampant poverty observed among immigrant seniors in Canada, these results exhibit a positive correlation between indebtedness and asset, which is very intuitive. In fact, the findings reveal that seniors who declared a house in their insolvency files had 114.4% more debt than those with no house. As for those who operated a business within the five years leading up to the insolvency, they had 51.1% more debt.

Likewise, while seniors from the lowest income quintile neighbourhood carry 17.2% less debt than those living in the middle-income quintile neighbourhood, those living in the highest income quintile neighbourhood had 20.4% more debt. Furthermore, it is observed that the higher the senior's family income the more indebted they are, which reinforce the results for the correlation between asset and indebtedness. For instance, a 10% increase in senior's family annual income is associated with 4.4% in total debt. In fact, this shows that not only seniors with higher income have a greater access to credit, but they are more inclined to accumulate more debt.

On the expense side, seniors' indebtedness is significantly driven up by car lease payments, condominium fees and dental care expenses. In fact, although these expenses' marginal effects are not very high and none of them is essential to seniors' survival, they are nonetheless necessary to maintain a certain quality of life. Therefore, it can be said that insolvent seniors who turn to the insolvency system for solution to their debt are in big financial trouble.

4. Final remarks

In a mass consumption society where the liberalization of credit is the norm, the notion of insolvency is surely not a paltry matter that only applies to reckless and inveterate consumers. When financially vulnerable senior citizens, who are unlikely to have a true "*fresh start*" after declaring for insolvency, due to their age, the plight of these senior citizens should be a policy concern. In fact, seniors who are chronically short of adequate income would not be able to get long-term financial relief by declaring insolvency. In this paper, we showed that the number of insolvencies filed by seniors grew proportionally to their share in the total population as the society ages. Therefore, this may eventually lead to pressures on public health expenditures. Consequently, a proactive approach to senior indebtedness would be required: we should consider increasing the retirement benefits for seniors instead of paying into the health system, which would have to deal with seniors' physical and psychological problems due to indebtedness.

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Annex. Results of the seniors indebtedness regression model

Residuals:				
Min 1Q Median 3Q Max				
-2.8455 -0.4382 0.0019 0.4170 5.7073				
Coefficients:				
	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	9.583763	0.763838	12.547	< 2e-16***
Pre Recession	-0.13872	0.028661	-4.84	1.35e-06***
Post Recession	0.032076	0.026367	1.217	0.223856
Region – Atlantic	-0.32059	0.066928	-4.79	1.73e-06***
Region – Ontario	-0.12376	0.058912	-2.101	0.035724*
Region – West	-0.22473	0.061791	-3.637	0.000279***
Gender (Male)	0.15324	0.025341	6.047	1.61e-09***
Age at Filing (ln)	-0.84944	0.16566	-5.128	3.07e-07***
Debtor Language (French)	0.31015	0.058306	5.319	1.10e-07***
Marital Status (with a partner)	0.052623	0.028195	1.866	0.062060.
Place of Residence (Urban)	0.031161	0.028664	1.087	0.27704
Mono-parental (Yes)	-0.0515	0.240554	-0.214	0.830504
Family Annual Income (ln)	0.440521	0.034838	12.645	< 2e-16***
Business Ownership (Yes)	0.51084	0.042021	12.157	< 2e-16***
Previous Bankruptcy (Yes)	-0.1184	0.082827	-1.43	0.152932
Previous Insolvency (Yes)	-0.09391	0.081147	-1.157	0.247244
Home Ownership (Yes)	1.144118	0.036661	31.208	< 2e-16***
Immigrant (Foreign-Born) Tercile				
Lowest Tercile	-0.08253	0.032573	-2.534	0.011330*
Highest Tercile	0.089529	0.045966	1.948	0.051518.
Neighborhood Income Quintile (National)				
Lowest Quintile	-0.17238	0.03393	-5.08	3.94e-07***
Medium-Low Quintile	-0.03064	0.035347	-0.867	0.386091
Medium-High Quintile	0.05699	0.040801	1.397	0.162557
Highest Quintile	0.203575	0.044141	4.612	4.11e-06***
Expenses				
RENT/MORTGAGE (ln)	-0.0026	0.006226	-0.417	0.67688
PROPERTY/CONDO Fees (ln)	0.019698	0.008553	2.303	0.021323*
Dining, Lunches Restaurants (ln)	0.008491	0.006249	1.359	0.174304
Allowances (ln)	0.007301	0.013094	0.558	0.57715
Drug Prescriptions (ln)	-0.00978	0.006499	-1.505	0.132329
Dental (ln)	0.02269	0.010059	2.256	0.024152*
Smoking (ln)	-0.03434	0.005851	-5.87	4.72e-09***
Alcohol (ln)	0.009836	0.009396	1.047	0.295234
Entertainment/Sports (ln)	-0.00613	0.006166	-0.995	0.319979
Other Medical Expenses (ln)	0.011829	0.011187	1.057	0.290391
Food-Groceries (ln)	-0.008	0.009666	-0.828	0.407662
Laundry, Dry cleaning (ln)	-0.01069	0.007723	-1.384	0.166451
Grooming, Toiletries (ln)	0.001273	0.007409	0.172	0.863576
Clothing (ln)	-0.00147	0.006884	-0.214	0.830505
Car Lease Payments (ln)	0.034223	0.005167	6.623	3.98e-11***
Repair, Maintenance, Gas (ln)	0.006261	0.008165	0.767	0.443264
Vehicle Insurance (ln)	-0.02829	0.00946	-2.99	0.002805**
Gift, Donation (ln)	-0.00408	0.007621	-0.535	0.592902
Automobile-Value (ln)	0.022135	0.003641	6.079	1.32e-09***
Source of Income				
Employment Income (Yes)	0.012098	0.037543	0.322	0.747277
Pension/Annuities Income (Yes)	-0.04771	0.046436	-1.027	0.304332
Child Support Income (Yes)	-0.15119	0.106612	-1.418	0.156226
Spousal Support Income (Yes)	0.02924	0.134802	0.217	0.828291
Employment Insurance Income (Yes)	0.032761	0.09114	0.359	0.71927
Social Assistance Income (Yes)	-0.02027	0.108592	-0.187	0.851913

Self-employment Income (Yes)	-0.02565	0.06836	-0.375	0.707475
Reasons for Financial Difficulties				
Financial Mismanagement (Yes)	-0.06149	0.026884	-2.287	0.022224*
Loss of Income (Yes)	0.017373	0.027118	0.641	0.521796
Medical Reasons (Yes)	0.007973	0.027845	0.286	0.774627
Business Failure (Yes)	0.393736	0.054269	7.255	4.78e-13***
Gambling (Yes)	0.210557	0.06325	3.329	0.000879***
Addiction Other than Gambling (Yes)	-0.11156	0.208868	-0.534	0.593275
Relationship Breakdown (Yes)	0.087746	0.06903	1.271	0.203757
Tax Liabilities (Yes)	0.249305	0.052157	4.78	1.82e-06***
Financial Support of Others (Yes)	0.160241	0.056825	2.82	0.004827**
Student Debt (Yes)	0.272358	0.272826	0.998	0.318201
Legal Matters (Yes)	0.530079	0.112352	4.718	2.46e-06***
Moving Relocation Expenses (Yes)	-0.21653	0.116281	-1.862	0.062657.
Failed or Rejected Proposal (Yes)	0.159695	0.127546	1.252	0.210621
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Residual standard error: 0.7161 on 4037 degrees of freedom Multiple R-squared: 0.5206, Adjusted R-squared: 0.5134 F-statistic: 71.88 on 61 and 4037 DF, p-value: < 2.2e-16				