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The value of a good credit reputation: Evidence from credit card renegotiations☆

Andres Liberman*

NYU Stern School of Business, 44 West Fourth Street, New York, NY 10012, United States

A R T I C L E I N F O

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A B S T R A C T

I exploit a natural experiment to estimate borrowers' willingness to pay for a good credit reputation. A lender in Chile offered lower installments to borrowers who were in default. Those who owed more than a fixed arbitrary cutoff were additionally offered a clean public repayment record. Using the cutoff in a fuzzy regression discontinuity design, I show that borrowers are willing to pay the equivalent of 11% of their monthly income for a good reputation. Borrowers use their reputation to take on more debt with other banks, but default more. Thus, renegotiations may impose informational externalities on other lenders.

1. Introduction

Credit reputation, defined as public information on borrower repayment behavior, affects the allocation of consumer credit. Indeed, lenders are more willing to supply credit to borrowers who have a reputation of timely repayment. As a result, borrowers have an incentive to repay their debt to have a clean credit record.[1] Previous studies (Brown and Zehnder, 2007; De Janvry, McIntosh and Sadoulet, 2010) and an abundance of anecdotal evidence (e.g., "Effect of Foreclosure on Credit Score" on CreditCardForum[2]) support this claim.

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* Tel.: +1 212 998 0322; fax: +1 212 995 4233.
E-mail address: aliberma@stern.nyu.edu

[1] Eaton and Gersovitz (1981) and Diamond (1989), among others, provide models of debt repayment based on the value of a good credit reputation. Bulow and Rogoff (1989a, 1989b) examine this motive for repayment in the context of sovereign lending. Pagano and Jappelli (1993) and Padilla and Pagano (2000) study the effects of information sharing on credit supply and on repayment behavior, respectively.

[2] See http://creditcardforum.com/blog/effect-of-foreclosure-on-credit-score/.

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But there is no direct evidence on how much consumer credit borrowers care about their credit reputations. In particular, asking borrowers how much they would pay in exchange for a clean credit record is typically infeasible or unreliable. An alternative approach, which I pursue in this paper, is to infer borrowers' willingness to pay for a clean credit record from debt repayment. However, uncollateralized borrowers may repay for a number of other reasons, such as to avoid non-pecuniary costs of default (e.g., moral and social costs). The empirical challenge associated with this approach is to isolate the amount borrowers repay to have a good credit reputation from what they pay for other reasons.

In this paper I exploit a natural experiment to estimate the willingness to pay for a good credit reputation of a group of consumer credit borrowers. To my knowledge, this is the first paper to estimate this measure.[3] The natural experiment allows me to address the empirical challenge described above and resembles the following idealized setting. Consider two identical uncollateralized consumer credit borrowers, T and C (for "Treated" and "Control," respectively) who are in default—i.e., have stopped making their payments—and, as a result, have a bad credit reputation as seen by other lenders. By revealed preference, either both borrowers' willingness to pay to have a clean credit record is less than their full payment due, or they both face a binding liquidity constraint that prevents them from paying. Suppose the creditor offers both borrowers a renegotiation of their repayment terms that lowers their payments due, thereby helping to relax any liquidity constraint they may face. However, the offers differ in one respect: the lender also offers to restore T's public credit reputation, while C will still appear as in default to outside lenders, even if she repays. Because all other contract terms are held constant, the difference between the expected repayment of T and C after the renegotiation corresponds to their willingness to pay to have a good credit reputation.

The natural experiment, which closely resembles the above idealized experiment, was implemented by a large department store in Chile (The Store) that issues unsecured credit cards. Clients of The Store use the credit card to buy products or for cash advances and repay in fixed monthly installments. A borrower who misses one monthly installment is in default and receives a negative entry in the credit bureau—i.e., has a bad credit reputation. If the borrower pays the late installments any time before reaching 180 days in default, the negative entry is eliminated and no record of it is available to users of the credit bureau. However, after 180 days in default The Store writes off the debt and the negative entry remains as public information in the credit bureau for at least five more years, even if the borrower agrees to pay.[4] The information in the credit bureau is primarily used by lenders to infer a borrower's creditworthiness, but it is also used informally and many times illegally in other settings (e.g., when evaluating job candidates or for long-term cellular phone contracts). Anecdotal evidence suggests that Chileans are well aware of the costs of having a bad credit reputation.[5]

The natural experiment occurred as follows. All borrowers whose debts are written off—i.e., who are in default for more than 180 days—receive from The Store an offer via phone or email to renegotiate their debt. This policy allows all borrowers to pay their debt in lower installments after write off. Borrowers may reject this offer, in which case The Store may sue to recover the balance. However, The Store does not typically pursue judicial enforcement given the relatively high legal costs and small balances involved. In this setting, on February 2010, The Store began an unexpected monthly phone campaign with the purpose of offering a renegotiation to borrowers who were in default for more than 30 but *less* than 180 days. Borrowers who endogenously accepted this offer to renegotiate before write off also lowered their monthly installments and agreed to pay more installments. Importantly, because renegotiations were offered before write off, borrowers who accepted them also obtained a clean record at the credit bureau for as long as they paid their new installments on time.

My empirical strategy consists of measuring the repayment of borrowers who renegotiate before write off in excess of what their own counterfactual repayment would have been had they instead not renegotiated with The Store. This comparison closely resembles the idealized setting described above: just like borrower T in the idealized setting, delinquent borrowers who renegotiate before write off face a lower monthly payment and are able to obtain a clean slate with the credit bureau. On the other hand, just like borrower C in the idealized setting, borrowers who do not renegotiate before write off and remain in default can also lower their monthly payment after write off but cannot obtain a clean credit record.[6]

The remaining challenge is to estimate the repayment of borrowers who renegotiate before write off in excess of their own counterfactual repayment had they not renegotiated, which is not observable. Because renegotiating before write off is an endogenous outcome, the counterfactual repayment is not necessarily the average repayment of borrowers who do not renegotiate. Indeed, borrowers who renegotiate before write off may be different from those who do not in ways that are correlated with ex post

[3] Related papers have estimated this willingness to pay in other markets by observing how the prospect of a good reputation changes the incentives to obtain it over time via repeated interactions, e.g., Gorton (1996) (in the market for corporate debt) and Livingston (2005) (in the market for apples).

[4] There is no personal bankruptcy law in Chile. Thus, the persistence of the negative entry in the credit bureau is similar to the long but limited duration feature of the signal of bankruptcy in public credit records in the U.S. (e.g., Musto, 2004).

[5] A July 23, 2011 article in the *The New York Times* about the Chilean consumer credit market indicates that: "A [bad credit score] usually means being blacklisted for jobs, mortgages or political office. If you [have a bad credit reputation], if you are not in hell, you are on the way there."

[6] The counterfactual action of a borrower who renegotiates before write off could instead be to pay her late installments and "self-cure" out of default. Because the payment required to self-cure is higher than the renegotiated installment, borrowers who self-cure would end up paying relatively more. This reduces the estimate of the excess repayment induced by renegotiation before write off.