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Research Article

What does not kill us makes us stronger: the story of repetitive consumer loan applications

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Abstract

We investigate borrower and lender behaviours when the borrower has experienced a sequence of failed loan applications. Our analysis is based on half a million observations from an established peer-to-peer (P2P) loan platform in China from 2010 to 2018. We find that borrowers who have better credit scores and who accept to pay higher interest rates are likely to reapply for funds after experiencing an earlier failed attempt. However, women and applicants with more education are discouraged from re-applying compared to their male or less-educated counterparts, respectively. On the funding supply side, lenders strive to fund safe borrowers who have high credit ratings and high income, though not those who offer a high interest rate.

KEYWORDS:

JEL Classifications:

G14

G32

M10

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Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes

1 E.g. see FT.com <https://www.ft.com/content/4c66b622-dea5-11e9-9743-db5a370481bc>, accessed 25 January 2020.

2 The impact of previous loan application turndowns has not been considered in the discouraged borrower literature except for Rostamkalaei, Nitani, and Riding ([2018](#)), who examined the effects of informal turndowns.

3 Educated applicants are expected to have better incomes in the future and can postpone their financial needs rather than borrowing a loan that will require them to pay high interest rates.

4 Similarly, Crook ([1999](#)), using US Consumer Finance survey data, provided evidence that minorities and single females are more likely to be discouraged from applying for loans.

5 See, for instance, Kim and Moor ([2017](#)).

6 Along these lines, see De Roure, Pelizzon, and Tasca ([2016](#)).

7 See Caglayan, Talavera, and Zhang ([2019](#)) or Gao et al. ([2020](#)) for more detailed information about the dataset.

8 The data also contain information on loan applications for medical expenses. But this segment is very small and corresponds only about 0.5% of the data amounting to 3,510 entries. We, therefore, merged loans on medical expenses with personal expenditure data.

9 China's cities are typically divided into four categories based on population size, income level, and institutional environment. Tier 1 cities include Beijing, Shanghai, Guangzhou, Shenzhen, Chengdu, Hangzhou, Chongqing, Wuhan, Suzhou, Xi'an, Tianjin, Nanjing, Zhengzhou, Changsha, Shenyang, Qingdao, Ningbo, Dongguan, and Wuxi.

10 The loss of better-quality applicants upon a rejection can lead to the collapse of the market as at the limit the only borrower type left for funds would be those with a high-risk profile (Akerlof [1970](#)). However, we do not claim that only the high-quality borrowers drop out of the market. It is also expected that some of the risky borrowers will self-select and leave the market if they think the investors would not lend any funds to them.

11 This figure includes all applications, including those that were successful from the first attempt.

12 See Chakravarty and Xiang ([2013](#)) and Cole and Sokolyk ([2016](#)) for a similar modelling strategy.

13 An inverse-U-shape relationship is found between age and investment skills (Agarwal et al. [2009](#); Korniotis and Kumar [2011](#)), loan approval (Muravyev, Talavera, and Schäfer [2009](#)), and even entrepreneurial job satisfaction (Pham, Talavera, and Zhang [2018](#)).

14 We have also experimented with a number of additional control variables, including a vector of dummy variables corresponding to purpose of loan (car purchase, education, home refurbishment, housing or wedding). The obtained results are quantitatively similar and available upon request.

15 Clustering errors by loan purposes or by listings yield similar p-values. Detailed results are available upon request from the authors.

- 16 Focusing on firm-level data, Tang, Deng, and Moro ([2017](#)) reported that the amount of the loan does not affect the probability that the business manager is a discouraged borrower.
- 17 Interest rates charged by loan sharks or payday lenders in China are much higher than those that P2P lenders receive. Yet, unlike funds from other sources, such funds are available to anyone who agrees to pay the rates.
- 18 See <https://www.renrendai.com/help/borrow/borrow!creditrating.action>, accessed 21 February 2019.
- 19 When we move through the application stages, the number of reapplicants drops to 27 and 10 K. Considering that better educated applicants have already dropped out in earlier stages, significance throughout the exercise should decline as we move across the columns.
- 20 We conducted a similar investigation in which we restricted our attention to at least five loan applications with one or more successful outcomes. The results were similar and are available from the authors upon request.
- 21 Renrendai.com allows borrowers to create new loan applications before an existing loan is paid off.
- 22 Detailed discussions about the propensity score matching approach can be found in Rosenbaum and Rubin ([1983](#)), Rosenbaum ([2001](#)) and Chen, Leung, and Goergen ([2017](#)). We have also tried nearest neighbour matching and received quantitatively similar results, available upon request.
- 23 The results on remaining variables are quantitatively similar as shown in Table 3. The full table is available from the authors upon request.
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