Expanding Financial Access Via Credit Cards: Evidence from Mexico

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Sector(s): Finance

Location: Mexico

Sample: 144,000 new-to-banking clients

Target group: Rural population Urban population Adults

Outcome of interest: Credit balance/repayment

Intervention type: Credit Information Contracts Credit or debit cards

AEA RCT registration number: AEARCTR–0003941

Partner organization(s): Banco de Mexico

Across many low- and middle-income countries, credit card borrowing is an increasingly common way to include low-income individuals in the formal financial sector. Researchers leveraged data from a randomized evaluation conducted by a large bank in Mexico to test the impact of varying credit card contract terms on loan default, card cancellation rates, and bank revenue for first-time formal sector borrowers. Clients in the evaluation were randomly assigned to one of four levels of reduced interest rates and one of two higher minimum payment rates. Variations in these terms had little impact on default, suggesting that contract terms may do little to mitigate risk among new borrowers.

Policy issue

Credit card borrowing is increasingly common in many low- and middle-income countries and is often the first formal sector loan product for borrowers. While expanding credit card use to low-income populations can deepen financial inclusion, financial institutions struggle to screen first-time borrowers prior to lending. New borrowers lack a credit history, and little data exist to predict borrower behavior. This limited scope to evaluate applicants' ability to repay before extending a credit card offer increases the importance of contract terms, including minimum payments and interest rates, in preventing default.

Policymakers have raised concern that low minimum payments could lead to excessive borrowing and increased default and have advocated for raising minimum payments to mitigate these risks. In response, banks have enacted different strategies to reduce default by designing credit card contract terms that encourage low debt and timely repayment. For example, higher minimum payments might lower debt by requiring payments of greater value each month, thereby reducing the likelihood of default, or they might encourage default by placing greater strains on household cash flows. Lowering interest rates might mitigate default by reducing total debt levels and providing an incentive to avoid risky spending. Can larger minimum payments and lower interest rates reduce default, thereby overcoming the risk that financial institutions face in expanding formal credit access to new, low-income borrowers?

Context of the evaluation

Formal credit access in Mexico is low, but over the past two decades, it has been expanding primarily through credit cards issued by large banks. Specifically, the number of credit cards nationwide in Mexico grew from 10 million to 24.6 million between 2004 and 2011, and credit cards were the first loan type for 74 percent of formal sector borrowers. In an effort to limit excessive borrowing and default during this time of rapid expansion, the Mexican Central Bank instituted a limit (or a "floor") on how low minimum credit card payments could be in 2010. The credit card examined in this evaluation was targeted to low-income individuals with no or limited credit histories and accounted for 15 percent of all first-time formal sector loans in 2010.

The bank selected new-to-banking clients who represented all 31 states and the Federal District. Just over half of participants were male, with an average age of 40, and about 60 percent were married. About a fifth of the sample (18 percent) held formal sector jobs. On average, these clients earned less than average borrowers that took out loans from formal banks; average income for sampled clients at the start of the evaluation was MXN 13,855 (US$1,252.19) in comparison to MXN 22,641 (US$2,046.25) for experienced borrowers. In addition, participants were viewed as risky due to the unpredictability of their behavior. The average credit score for borrowers was 645; where, typically, a credit score below 670 is considered ineligible for many credit cards. For 47 percent of participants, the credit card studied here was their first formal loan product.

Details of the intervention

Researchers leveraged a randomized evaluation conducted by a large commercial bank to test the impact of contract term variations on default rates (forced exit initiated by a bank following three consecutive monthly payments that were each less than the minimum payment due), card cancellations (contract exit initiated by client after paying the outstanding debt), and bank revenue (return generated by contract terms).

Of its 1.3 million new-to-banking customers, the bank randomly selected 162,000 to participate. Borrowers were, first, classified into three categories based on their tenure with the bank and another three categories based on their history of repayment. Clients had an active credit card with the bank under its standard contract terms (approximately 55 percent annual interest rate and 4 percent minimum payment) and had paid at least the minimum amount due in each of the six months prior to January 2007. All participating clients were randomly assigned by the bank to one of four levels of reduced interest rates and one of two increased minimum payment rates, for a total of eight intervention groups, or a comparison group. Researchers did not use the bank's comparison group in their analysis because they lacked interest rate data for these clients' credit cards, and therefore focused on the 144,000 new-to-banking customers assigned to the eight intervention groups.

Prior to the start of the evaluation in March 2007, individuals received a letter alerting them to the changes in their contracts. While each participating client experienced a change in his/her contract terms, some experienced greater changes than others. For example, the group subject to the least amount of change from the original contract terms experienced a drop in the interest rate from 55 to 45 percent, and an increase in the minimum payment rate from 4 to 5 percent, which served as the researchers' comparison group.

Group	Interest Rate (%)	Minimum Payment (%)
1 (18,000 clients)	15	10
2 (18,000 clients)	15	5
3 (18,000 clients)	25	10
4 (18,000 clients)	25	5

5 (18,000 clients)	35	10
6 (18,000 clients)	35	5
7 (18,000 clients)	45	10
8 (comparison group, 18,000 clients)	45	5

To measure the impact of these changes in contract terms, the bank collected monthly data on financial behaviors such as purchases, payments, debt, credit limits, defaults, and cancellations between March 2007 and May 2009.

Results and policy lessons

Even large variations in contract terms had limited effects on default rates, suggesting that contract terms do little to mitigate risk among new borrowers.

Defaults: Changes in contract terms had a limited effect on default risk for new borrowers. Though increasing minimum payments from 5 percent to 10 percent decreased debt, changes in minimum payments did not significantly affect default in the short-run. Three years later, higher minimum payments imposed during the evaluation reduced default by 4.6 percentage points relative to a base of 40.5 percent (an 11.4 percent decrease). Despite the regulatory emphasis on increasing minimum payments to protect inexperienced borrowers, these findings suggest that they were of limited effectiveness in reducing default.

Decreasing interest rates by a factor of three (from 45 percent to 15 percent) decreased card default rates by 2.6 percentage points from a base of 19 percent (a 13.5 percent decrease). The weak relationship between interest rates and default suggests that other factors, like unemployment, may drive default.

Cancellations: Borrowers assigned to higher minimum payments were more likely to cancel their credit cards. Doubling the minimum payment—which made the card less attractive to borrowers—increased cancellation rates by 1.7 percentage points from a base of 13.4 percent (an increase of 12.7 percent). Conversely, lower interest rates increased the credit card's attractiveness and fewer borrowers chose to cancel. Reducing the interest rates of the study card from 45 to 15 percent lowered cancellations by 3.5 percentage points from a base of 13.4 percent (a decrease of 26 percent). This is consistent with consumers engaging in some search or being open to outside credit card options.

Bank revenues: Lower interest rates and higher minimum payments reduced bank revenues. A reduction in interest rates from 45 percent to 15 percent decreased revenue per borrower by about MXN 2,859 (US$217.06) (for the 5 percent minimum payment group). Borrowers did not respond to lower interest rates by increasing risky behaviors; instead they maintained previous spending habits, made smaller monthly payments, reduced debt, and incurred lower fees. Similarly, banks earned MXN 469 (US$35.61) less per borrower from those assigned to pay a minimum of 10 percent compared to the 5 percent group due to lower debt levels and increased cancellations. Borrowers responded to the change by making small increases to purchases and payments, which moderately decreased debt and had no effect on default.

The variety of contract term combinations did not consistently improve debt or default levels, suggesting that instituting minimum payment floors and other changes to contract terms to minimize default may be an ineffective policy lever. This had consequences for both borrower and lender, as borrowers that defaulted faced fewer formal opportunities to borrow and banks lost revenue on cancellations. Coupled with the fact that pre-application acceptance screening is difficult, these results highlight the challenges to expanding access to formal financial services for low-income, new-to-banking people using contract terms as a policy tool.

As substantial changes in contract terms were relatively ineffective in reducing default, the bank reduced its interactions with new-to-banking borrowers and completely stopped issuing the credit card in 2010.

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