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Forgone Investment: Civil Conflict and Agricultural Credit in Colombia

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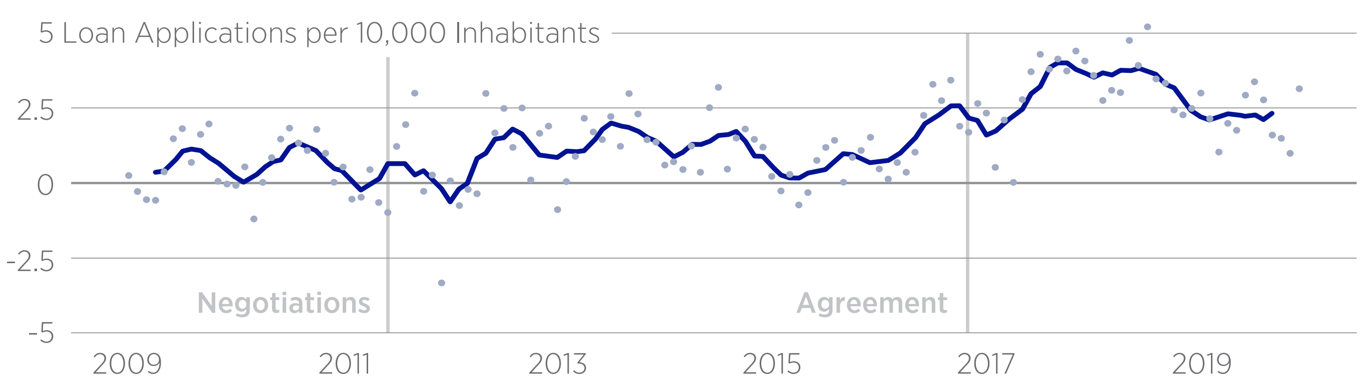
Credit to small producers increases after a peace agreement in municipalities with high exposure to insurgent groups; overall, higher investment, unchanged default rates, and increased nighttime luminosity imply an overall positive economic impact of conflict resolution.

While research has offered insights into the economic costs of civil conflict, the effect on investment decisions is little understood. Do producers forgo profitable investment opportunities when faced with the uncertainties surrounding civil conflict? If so, such missed investment could restrict economic growth and further exacerbate cycles of violence.

The authors address this research gap by examining the effect of civil conflict on investment by Colombian farmers using granular credit data from the country's largest agricultural bank, Banco Agrario de Colombia (BAC). BAC is the only source of formal credit in many rural areas, and the authors' dataset includes the universe of the bank's business loans to small producers between 2009 and 2019 (2.9 million), corresponding to 1.7 million different applicants, which is equivalent to 64% of the country's agricultural producers. These data also have unique features pertaining to timing, applicant status, and loan outcomes.

The authors examine variation in conflict arising from the 2016 demobilization agreement signed by the Colombian government and FARC, the Marxist guerrilla group fighting against the government in a civil conflict that ravaged the Colombian countryside for over 50 years, with an estimated death toll exceeding 200,000 victims. The authors calculate total FARC activity per municipality between 1996 and 2008, the most violent years in the conflict, and then rank those municipalities according to conflict exposure. This allows them to compare credit outcomes based on FARC exposure.

Figure 1 • Monthly Loan Applications in Event Study



Note: This figure shows point estimates from a regression of the monthly number of loan applications (per 10,000 inhabitants) with intended destination to the municipality on monthly dummies interacted with an indicator for municipalities with FARC exposure (i.e. in the upper quartile of the distribution of total FARC events per 10,000 inhabitants between 1996 and 2008). The unit of observation is the municipality-month. Regression includes municipality and department-month fixed effects, as well as additional sets of month fixed effects interacted with time-invariant measures of (i) rural share of population, (ii) the basket of crops produced in the municipality, (iii) coca cultivation. The solid line depicts a moving average of the three previous and the three following point estimates. See the text for further details.

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Their findings include the following:

- The end of the conflict leads to a sizable increase in credit to small farmers in municipalities with high FARC exposure, about 19 million Colombian pesos ($14,500) in total monthly credit disbursements per 10,000 inhabitants, equivalent to a 17% increase over the sample average. This increase is driven by higher loan applications, without any meaningful change in supply-side factors, including approval rates and interest rates.

- The increase in the demand for credit in FARC municipalities is disproportionately driven by new clients with lower wealth and longer-term investments (i.e., higher loan maturity). Importantly, there is no change in the average credit score of loan applicants, nor in delinquency rates for new or outstanding loans over various time horizons.

- There are significant heterogeneous effects across time and space, that is, the authors find no evidence of an increase in credit demand during the interim negotiations period, despite a substantial de-escalation of the conflict. This suggests that armed group presence and uncertainty about renewed violence affect investment more than contemporaneous intensity. Moreover, the increase in credit demand is concentrated in municipalities close to markets.

Taken together, these findings provide key insight into the effect of civil conflict on investment decisions. While this research does not capture the macroeconomic impact of the peace agreement, it does provide evidence suggestive of a broadly positive economic impact. First, the fact that farmers are demanding more credit and paying back their loans suggests that these are profitable investments. Also, in-person audits of project sites indicate that farmers are generally using the funding for the declared purpose. Finally, the documented increase in nighttime luminosity in FARC municipalities following the peace agreement is consistent with a broad expansion of local economic activity, which arguably contributes to higher returns to investment and greater demand for credit.