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EXECUTIVE SUMMARY

FIRM-LEVEL AND LOCAL LABOR MARKET EFFECTS OF A LARGE CREDIT SHOCK: EVIDENCE FROM BRAZIL

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This paper aims to contribute to the general topic of financial constraints and development. This link is explored in a wide literature spanning from theoretical to empirical contributions. One strand of this literature deals with financial frictions in developing countries. Indeed, less developed countries have low levels of financial development, with lower avail ability of formal financial services and lower measures of external finance to gross domestic product (GDP) than those of developed countries (Banerjee and Duflo, 2005). Another strand emphasizes the relatively poor performance on firms' outcomes also in developing countries. For instance, firm size distribution seems to have a high concentration in small firms at the expense of a low share of middle-sized firms, a regularity coined as missing middle (Tybout, 2000). Additionally, there is evidence pointing to more pronounced missallocation of resources among firms in developing countries (Hsieh and Klenow, 2009) and even more among small ones. Hence, a common explanation for the poor performance of entrepreneurs in developing economies is their inability to obtain credit to expand their scale of operation.

We assess the aggregate impacts of the Cartão BNDES (BNDES Card), a credit line of the Brazilian Development Bank (Banco Nacional de Desenvolvimento Econômico e Social – BNDES) targeted at small and medium enterprises (SMEs). The BNDES Card is an SMEs-earmarked credit line based on the idea of personal credit cards: it is a pre-approved revolving credit based on a fixed credit limit established by the credit card's issuer. The BNDES card provides financing for the isolate purchase of a list of financeable products through a list of registered suppliers (based on the concept of a marketplace). It finances both inputs (goods and services) and capital goods (mainly machinery and equipment).

We use the major expansion of credit supply within Cartão BNDES to estimate causal effects of credit supply on firm size distribution, entry and exit, employment, as well as GDP per capita and GDP per formal worker. We rely on a distinguished feature of this credit line to construct a variable that capture a credit supply expansion that varies exogenously across regions. This motivates the use of an instrumental variable, difference-in-difference

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estimator, that exploits differential access to the line and expansion of registered suppliers to recover these causal effects. Our dataset combines two unique administrative data from Brazil. The first is the Annual List of Social Information (Relação Anual de Informações Sociais – RAIS) dataset, a matched employer-employee data that contains the universe of formal firms and workers. The second is the administrative data from the Cartão BNDES credit line, which contains firm-level information on beneficiaries, credit use and suppliers. Our analysis focuses on the 2005-2012 period, which is characterized by a rapid expansion of the credit line.

Our main result points that a 1% increase in BNDES card loans will foster average local formal employment, which will increase between 6.7% and 10.3%. This increase in employment is driven by the increase in the average size of firms, specially by the average size of new entrant firms. Also, we obtained that a 1% increase in BNDES card credit availability is associated with an increase in the number of entrant establishments (between 9.2% and 9.6%), and a null reaction on firm survival. These are relevant results as they suggest that the type of credit provided by BNDES card foster the dynamics of local labor markets, increasing the entrance of new firms, which are pointed as the group most affected by credit constrains. Moreover, we have no evidence that such credit availability will avoid the exit of low productivity firms, nor that it will harm productivity.

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