

Microfinance, Micro-entrepreneurship and Misallocation

Authors: Girija Bahety, Marina M. Ngoma

In this paper, we focus on the interplay between credit and labour market frictions and their role in generating misallocation in occupational choice and business investments. We then investigate whether this interplay can help explain the low average returns of microfinance.

Introduction

For almost half a century, microfinance has been seen as a powerful tool to improve access to credit for the poor. However, the evidence on microfinance in developing countries is characterised by modest take up and limited average impacts on income, profits and consumption, raising questions about the extent to which microfinance can catalyse significant growth. Another major challenge faced by the poor are imperfect labour markets, characterised by a lack of wage work or large search frictions. The interplay of both imperfect credit and labour markets may lead poor households to make constrained occupational choices. Those who prefer to do wage work may start a small business for sustenance due to lack of appropriate jobs or out of necessity ("involuntary entrepreneurs") while those who prefer to start a business ("voluntary entrepreneurs") may face credit constraints and not be able to grow their business optimally. The presence of involuntary entrepreneurs signifies excess entrepreneurship in the economy. These constrained occupational choices may lead to over- or under-investment of resources in businesses, i.e., allocative inefficiency of resources and hence, lower returns to credit or investments. In this paper, we focus on the interplay between credit and labour market frictions and their role in generating misallocation in occupational choice and business investments. We then investigate whether this interplay can help explain the low average returns of microfinance.

Specifically, we evaluate the following research questions: Do credit and labour market frictions lead to involuntary entrepreneurs with low entrepreneurial productivity and lower capacity to invest and cause them to grow their business sub-optimally? What is the prevalence of involuntary and voluntary entrepreneurs given these market frictions? And to what extent do microfinance treatment impacts differ by these entrepreneur types?

Methodology and Data

We build on the occupational choice framework in the presence of credit and labour market frictions, developed by Karaivanov & Yindok (2022), to classify involuntary and voluntary entrepreneurs and wage workers. We further allow for two modifications in the model. First, the entrepreneur is not the only labour

input and hires wage workers. Second, access to microfinance leads to crowding-in of additional loans from formal and/or informal sources. We use the Simulated Method of Moments (SMM) to estimate parameters related to credit and labour market frictions, to simulate policy counterfactuals of microfinance and other credit and labour market policies, and to quantify their impacts and understand the mechanisms of change. It is not possible to directly observe in the data whether a given entrepreneur is voluntary or involuntary. We classify these entrepreneurs by inferring counterfactual incomes had they chosen a different occupation or faced different constraints by using observable schooling and wealth levels from the data and structural modelling.

We use data from two randomised controlled trials (RCTs): one conducted in Hyderabad, India (Banerjee et al., 2015) and the other conducted in Bosnia and Herzegovina (Augsburg et al., 2015), to structurally estimate the model. With randomised access to microfinance and different experimental contexts, the RCTs provide us with causal identification and lend internal and external validity to the results. These RCTs span two different economic environments: high economic growth and widespread lending from MFIs between 2005 and 2010 in Hyderabad and economic recession of 2008-09 in Bosnia and Herzegovina. Moreover, in Bosnia and Herzegovina, microfinance was available to only those who were previously rejected by MFIs and hence, could lead to relatively more credit constrained participants.

Findings and Policy Impact

We find that a majority of entrepreneurs in our sample are involuntary entrepreneurs, providing consistent evidence of misallocation at the extensive margin, i.e., occupational choice or labour rationing. We further match the model-implied predictions of entrepreneur types with survey data to provide insights into characteristics of involuntary entrepreneurs. These involuntary entrepreneurs, on average, earn much lower incomes than voluntary ones. They are older, more likely to be female, more likely to be married and have larger households and lower educational qualifications. This description of these low-return involuntary entrepreneurs is also consistent with previous literature on own-account workers being similar to wage workers.

We then introduce access to microfinance and its crowding-in effects of additional credit supply from other formal and/or informal sources in the model to explore the distributional impacts of microfinance. We find that by relaxing credit constraints, microfinance improves credit and labour investments and improves entrepreneurial incomes by 30%. Microfinance reduces total entrepreneurship by 5% and increases voluntary entrepreneurship by 8%. We validate these results by matching households in the survey data with their model-predicted probability of involuntary entrepreneurship and running heterogeneous treatment effects regressions. The treatment effects we estimate using the model complement the findings on lack of transformative impacts on incomes and profits on average and on the important role of entrepreneurial heterogeneity. Most of the entrepreneurial income gains are driven by voluntary entrepreneurs and those in lower terciles of wealth, who face binding credit constraints. We also find that involuntary entrepreneurs who have access to microfinance earn lower business revenue and more wage income than those without, consistent with microfinance inducing some involuntary entrepreneurs to shift away from self-employment

and toward wage employment. The presence of uneven distributional impacts is consistent with recent literature documenting large heterogeneous results of microfinance.

By modelling entrepreneurs as potential employers and not just own-account workers, we find that access to microfinance leads to increased labour demand from existing businesses and hence, leads to higher equilibrium wages. We further show that with microfinance, while voluntary entrepreneurs now pay higher wages for labour inputs into their businesses, some involuntary entrepreneurs switch to wage jobs in response to higher equilibrium wages and hence earn higher wage incomes.

Constrained occupational choices and lower incomes of involuntary entrepreneurs provide further evidence to the existing literature explaining the dispersion in marginal products of capital and labour observed in businesses in developing countries. We further use model simulations to compare the entrepreneurship rates and the business investments in scenarios with different credit and labour market frictions such as the first-best scenario with a scenario featuring only of labour market frictions or only of credit market frictions. We find that misallocation in occupational choices decreases with schooling and initial wealth. We also find that relaxing labour market frictions leads to significantly greater improvements in allocative efficiency at both extensive and intensive margins than relaxing credit market frictions through microfinance.

These findings highlight the powerful role of labour market policies for improving welfare outcomes relative to increasing credit access, i.e., microfinance with small loan size is not a panacea. Recent studies have shown that very large asset transfers or asset-based microfinance help the poor to escape poverty traps by reducing misallocation in occupations. Efficient targeting of loans to high-return borrowers or voluntary entrepreneurs is another possible solution. Moreover, labour market policies such as public works programs; provision of adult education, skills or vocational training; and removal of hiring barriers may be more effective at reducing involuntary entrepreneurship and lead to large welfare gains.

Moving Forward

Our study benefits from combining both structural and reduced form methods. However, there are areas that could be better explored in future research. First, our analysis relies on the assumption that initial wealth and schooling are orthogonal to each other. Second, we rely on experimental datasets that were not necessarily intended to study enterprise activity in greater detail and hence, are prone to measurement errors. Third, for simplicity, we assume that all microfinance loans are used for business activity and make no distinction between consumption and business loans. Fourth, while risk neutrality may be a valid assumption in the model given the weak correlation between wealth and entrepreneurial productivity, we will explore relaxing this assumption in future research. In future, we will further explore the external validity of the results using other microfinance RCTs from Morocco, Mexico and Mongolia (Angelucci et al., 2015; Attanasio et al., 2015; Crepon et al., 2015). We will also explore the impact of specific labour market policies relative to microfinance and complimentary effects of credit and labour market policies as future extensions to this research.

References

- Angelucci, M., Karlan, D., & Zinman, J. (2015). Microcredit Impacts: Evidence from a Randomized Microcredit Program Placement Experiment by Compartamos Banco. *American Economic Journal: Applied Economics*, 7 (1), 151-182. doi: 10.1257/app.20130537
- Attanasio, O., Augsburg, B., De Haas, R., Fitzsimons, E., & Harmgart, H. (2015). The Impacts of Microfinance: Evidence from Joint-Liability Lending in Mongolia. *American Economic Journal: Applied Economics*, 7 (1), 90-122. doi: 10.1257/app.20130489
- Augsburg, B., De Haas, R., Harmgart, H., & Meghir, C. (2015). The Impacts of Microcredit: Evidence from Bosnia and Herzegovina. *American Economic Journal: Applied Economics*, 7 (1), 183-203. doi: 10.1257/app.20130272
- Banerjee, A. V., Duo, E., Glennerster, R., & Kinnan, C. (2015). The Miracle of Microfinance? Evidence from a Randomized Evaluation. *American Economic Journal: Applied Economics*, 7 (1), 22-53. doi: 10.1257/app.20130533
- Crepon, B., Devoto, F., Duflo, E., & Pariente, W. (2015). Estimating the Impact of Microcredit on Those Who Take It Up: Evidence from a Randomized Experiment in Morocco. *American Economic Journal: Applied Economics*, 7 (1), 123-150. doi: 10.1257/app.20130535
- Karaivanov, A., & Yindok, T. (2022). Involuntary entrepreneurship - Evidence from Thai urban data. *World Development*, 149, 105706. doi: 10.1016/j.worlddev.2021.105706

This note is based on research conducted as a part of PEDL [ERG 8409](#).