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Microfinance and Poverty: What Does the Cross-Country Evidence Really Show ?

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01 RATIONALE & BACKGROUND

- The fight against poverty remains one of the most serious economic issues in the world. At the United Nations Summit in 2015, 17 sustainable development goals were adopted and approved by 193 countries around the world with the eradication of poverty at the top of these goals. According to the World Bank (2018), in 2015, an estimated 736 million people were living below the international poverty line (US\$1.90). Therefore, the World Bank has set a target of reducing the number of people living in extreme poverty to less than 3% of the world's population by 2030.
- The World Bank group considers financial inclusion as a mean of fighting extreme poverty and has put forward an ambitious global goal to reach Universal Financial Access (UFA) by 2020. But because of high interest rates, collateral requirements, complicated application procedures, and long admissions processing, the poor do not have formal financial services.
- Microfinance is considered among the strategies which resolves the problem of financial exclusion and combat poverty (Morduch and Haley, 2002, Khandker, 2005). It is considered as the only financial mechanism which is also a strategy oriented towards poverty reduction since it gives hope to a disadvantaged section of the population excluded from the traditional financial system.
- The aim of Microfinance institutions (MFIs) is to provide microcredit to those who have no access to traditional banks, in order to reduce poverty and to help the poor with setting up their own income generating businesses. This explains the growth observed in the microfinance sector. In fact, between 1999 and 2018, the number of borrowers from MFIs increased from 9 million borrowers to 140 million. Similarly, the size of loans granted by MFIs has increased from 2 billion to 124 billion worldwide. This is because the majority of people living in developing countries do not have access to the conventional financial system and, as a result, they turn to MFIs for credit for consumption or investment (Morduch ,1999).
- In general, most economists argue that microfinance is beneficial for economic activity, especially in developing countries. Many studies have shown, at the microeconomic levels, that microfinance can reduce poverty, increase education and investment in productive activities (Ghalib et al. 2015, Khandker and Samad , 2018, Lønborg and Rasmussen , 2014).
- At the macroeconomic level, there has been little research that studies the relationship between microfinance and poverty. The best known are Imai et al. (2012), Bangoura et al. (2016). These studies found a negative relationship between microfinance and poverty, that is to say, a country with a higher MFI gross loan portfolio per capita tends to have lower poverty indices. Indeed, these macroeconomic studies have investigated the effect of microfinance on poverty. But none of these studies have examined through which channel microfinance can reduce poverty. Moreover, although the country samples used are largely heterogeneous, none of the previous studies have conducted a disaggregated study to detect the effect of the level of economic development on the results.

02 AIMS & OBJECTIVES

This paper aims to contribute to the microfinance literature by analyzing the relationship between microfinance and poverty at macroeconomic level. It extends the macroeconomic literature in four respects:

- Compared to Imai et al. (2012), whose poverty estimates are only available for two or three specific years for most countries. This paper uses a sufficiently large dataset to enable robust conclusions to be drawn. Specifically, the sample used in this study consists of annual data for 116 countries from 1999 to 2018.
- Since the aggregate analysis may hide the fact that the impact of microfinance on poverty depends on the level of development of countries, a disaggregated analysis was conducted in this paper, and the results show that microfinance has positive effects on poverty reduction in the group of middle and high-income countries. However, there is no significant relationship between microfinance and poverty in low-income countries.
- Compared to Imai et al. (2012), this study develops a more elaborate specification of the empirical model and addresses the potential problem of endogeneity accurately, resolving through panel data models using Two Stages Least Squares, To the best of my knowledge, there have been no previous studies that have succeeded to deal, accurately, with this problem in the case of a panel estimation.
- In order to understand the mechanisms behind the effects of microfinance on poverty, this paper study the relevance of a channel (education) through which MFIs gross loan portfolio might affect poverty ratio. Two education indicators are employed in the analysis -- education index and gross secondary school enrollment -- to capture various aspects of human capital. The results show that any increase in the size of the microfinance sector promotes education which, in turn, reduces poverty. To the best of my knowledge, there are no studies in the previous literature on the poverty-microfinance nexus that have identified channels to explain this relationship at the macroeconomic level.

03 DATA & METHODOLOGY

DATA

- Sample of 116 countries over the 1999-2018 period.
- The data on MFIs stem from the Microfinance Information Exchange (MIX) database.
- As a proxy to measure the size of the microfinance sector in a given country, I use the Gross Loan Portfolio (GLP) indicator. It is equivalent to all outstanding clients loans. This includes current, delinquent and renegotiated loans, but not the loans that have been written off.
- The data on poverty stem from World Bank's PovcalNet database.
- As a proxy to measure poverty in a given country, I use the Poverty Head Count Ratio, It measures the percentage of population living in households with consumption or income per person below the poverty line.
- Control variables related to poverty: GDP per capita, Trade, Control of Corruption, Inflation, Agriculture, Government Consumption, Population Growth and Education.
- All control variables are obtained from the World Development Indicators database of the World Bank, except for the control of corruption index, which comes from the World Governance Indicators database of the World Bank and the education index, which stems from Human Development database.

METHODOLOGY

- In a first stage, I estimate the following regression:

$$\boldsymbol{Poverty_{it} = \beta_1 GLP_{it} + \beta'_2 X_{it} + \varepsilon_{it}}$$

where $Poverty_{it}$ is the poverty head count ratio for country i at time t, GLP_{it} is the logarithm of the gross loan portfolio per capita, X_{it} is a vector of control , ε_{it} is the error term.

- However, microfinance and poverty might be endogenously related. Therefore, we need to control for the potential endogenous bias.
- To this end, I resort to instrumental variables and estimate the following model using a 2SLS approach :

$$\boldsymbol{GLP_{it} = \pi'_1 Instruments_{it} + \pi'_2 X_{it} + \vartheta_{it}}$$
$$\boldsymbol{Poverty_{it} = \beta_1 \widehat{GLP}_{it} + \beta'_2 X_{it} + \varepsilon_{it}}$$

where $Instruments_{it}$ is a vector of (excluded) instrumental variables and X_{it} is the vector of control variables.

- The instrumental variables used are the number of personnel and the administrative expense.

04 FINDINGS & RECOMMENDATIONS

FINDINGS

This paper has allowed us to fill some gaps in the existing macroeconomic literature on the microfinance-poverty nexus.

- Compared to previous studies, this study uses the largest and most extensive dataset to be able to draw solid conclusions. Indeed, the sample used in this study consists of annual data for 116 countries from 1999 to 2018.
- It controls, very accurately, for endogeneity and reverse causality of both the microfinance variable and the independent variable (poverty) using a 2SLS-based approach.
- It has provided a macroeconomic empirical evidence showing that microfinance intensity is significantly and negatively associated with poverty, which means that in countries with a high MFI gross loan portfolio, poverty tends to be lower.
- It has also shown that this positive impact of microfinance on poverty reduction comes through a transmission channel, namely education. The results show that microfinance has a positive impact on the level of education. This means that an increase in microfinance loans leads to an enhancing in the level of education, which in turn leads to poverty reduction.
- The findings reveal a systematically positive poverty effect of microfinance for both middle and high income countries. But a non-significant effect in low-income countries.

RECOMMENDATIONS

This analysis corroborates the assertion that microfinance is one of the instruments available to enable unbanked and poor people to become financially independent, improve their income and escape poverty.

- Thus, governments are invited to encourage the creation of inclusive financial systems on a large scale by promoting microfinance, while making it a profitable commercial sector linked to international finance. This will enable it to entice greater amounts of capital and involve a larger number of banks, strengthening financial sustainability and growth.
- Moreover, microfinance institutions must revise their credit granting strategy by targeting the poorest of the population and trying not to derive from the mission for which microcredits are created, i.e. the reduction of poverty.
- In addition, there is a need for more microfinance programs aimed at enhancing the educational level of borrowing households and their children. This will lead to an improvement in their standard of living and well-being.

05 KEY REFERENCES

- Bangoura, L., Mbow, M. K., Lessoua, A., and Diaw, D. (2016). Impact of microfinance on poverty and inequality a heterogeneous panel causality analysis. Revue d'économie politique, 126(5):789-818.
- Ghalib, A. K., Malki, I., and Imai, K. S. (2015). Microfinance and household poverty reduction: Empirical evidence from rural pakistan. Oxford Development Studies, 43(1):84-104.
- Imai, K. S., Gaiha, R., Thapa, G., and Annim, S. K. (2012). Microfinance and poverty: A macro perspective. World development, 40(8):1675-1689.
- Khandker, S. R. and Samad, H. A. (2018). Bangladesh's achievement in poverty reduction: The role of microfinance revisited. In Economic and social development of Bangladesh, pages 177-198.
- Khandker, S. R. (2005). Microfinance and poverty: Evidence using panel data from Bangladesh. The world bank economic review, 19(2):263-286.
- Lonborg, J. H. and Rasmussen, O. D. (2014). Can microfinance reach the poorest: evidence from a community-managed microfinance intervention. World Development, 64:460-472.
- Morduch, J. (1999). The microfinance promise. Journal of economic literature, 37(4):1569-1614.
- Morduch, J. and Haley, B. (2002). Analysis of the effects of microfinance on poverty reduction. New York: NYU Wagner Working Paper, 1014.