Microfinance and Poverty: What Does the Cross-Country Evidence Really Show?
Asma Boussetta
asma.boussetta@univ-orleans.fr

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 non-performing 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 less than or equal to 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 United Nations Development Programme.

- **METHODOLOGY**
  - In a first stage, I estimate the following regression:
    \[
    \text{Poverty}_{it} = \beta_0 \text{GLP}_{it} + \beta_1 \text{X}_{it} + \epsilon_{it}
    \]
    where \(\text{Poverty}_{it}\) is the poverty head count ratio for country \(i\) at time \(t\), \(\text{GLP}_{it}\) is the logarithm of the gross loan portfolio per capita, \(\text{X}_{it}\) is a vector of control variables, \(\epsilon_{it}\) 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:
    \[
    \text{GLP}_{it} = \beta_0 + \beta_1 \text{Instruments}_{it} + \beta_2 \text{X}_{it} + \epsilon_{it}
    \]
    where \(\text{Instruments}_{it}\) is a vector of (excluded) instrumental variables and \(\epsilon_{it}\) is the error term.
  - The instrumental variables used are the number of personnel and the administrative expense.

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 Imari et al. (2015), 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 Imari et al. (2015), 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 per capita might affect poverty ratios. 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 previous studies in the literature on the poverty-microfinance nexus that have identified channels to explain this relationship at the macroeconomic level.

This paper has allowed us to fill some gaps in the existing microfinance literature on the microfinance-poverty nexus. Compared to previous studies, this study uses the largest and most extensive dataset to 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 MFIs 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.

References:

04 FINDINGS & 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.

This, 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 drive greater amounts of capital and involve a larger number of banks, strengthening financial sustainability and growth.

Moreover, microfinance institutions must revist their credit granting strategy by targeting the poorest of the population and try 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 borrowers’ household and their children. This will lead to an improvement in their standard of living and well-being.