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Financial development and poverty reduction in developing countries: New evidence from banks and microfinance institutions

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Abstract

The literature on financial development and growth has received a lot of attention over the past two decades. Unlike growth, not much of consideration has been given to poverty reduction. Moreover, most of the past studies focus on bank and stock market development. The advent of microfinance institutions (MFIs) lets to think about the potential role MFIs can play in a countrywide economy. In this study, we consider to what extent banks and MFIs reduce poverty. We apply the instrumental variables approach, namely the fixed-effects two-stage least squares, to a panel of 71 developing countries over the period 2002–2011. Using credit to GDP as the main financial development indicator, the results indicate that banks reduce poverty when poverty is measured by the headcount ratio and poverty gap. As for the squared poverty gap, there is no significant effect of banks. On the other hand, MFIs do not appear to have any impact on poverty regardless of the measure of poverty employed. These results imply that while banks have some ability to reduce poverty, MFIs do not, at least at the aggregate level. Our results are robust to the use of assets to GDP as an alternative measure of financial development.

JEL classification: O11; G21

Keywords: Banks; Microfinance; Poverty; Developing countries

1. Introduction

Numerous studies have considered interactions between financial development and economic growth, including the direction of causality between the two. Some research has also considered poverty and financial development. These studies include Honohan (2004), Beck et al. (2007), Odhiambo (2010), and Jeanneney and Kpodar (2011). Studies such as Jalilian and Kirkpatrick (2002) consider a "trickle-down" approach. Building upon the framework of Beck et al. (2000) and Dollar and Kraay (2002), Jalilian and Kirkpatrick (2002) first consider how financial development affects economic growth and then examine to what extent growth reduces poverty. A common element of these studies is that they have considered economy wide measures of financial development, such as money and quasi money, market capitalization, or private credit in their empirical work. Such indicators fail to capture how different institutions within the financial sector influence poverty.

This omission could be especially important when examining microfinance institutions (MFIs) since they were promoted for the specific purpose of providing financial services to the poor, especially credit, in order to alleviate poverty. Microfinance first gained prominence during the 1970s with organizations such as the Grameen Bank in Bangladesh and the work of advocates like Mohammad Yunus. The scope of MFIs has since grown manifold. From 2002 to 2011, the gross loan portfolio of MFIs in developing countries increased by more than 1700% and its number of active borrowers increased by 400%.[1] MFIs have been most prevalent in South Asia, especially compared to other poor regions such as Africa and Latin America although they have grown in these regions as well. They also often serve

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[1] MIX Market data from www.mixmarket.org.

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rural communities where banks often cannot be found. Although MFIs also make loans from their deposits as do banks, their financing can also come from investor borrowing, from equity, and from grants. Since they often serve poor communities, loans to individuals are generally much smaller than typical bank loans and often not collateralized. Therefore, given that banks and MFIs serve different clienteles, make different types of loans, and are financed from different sources, they capture distinct aspects of financial development and so could have different impacts upon poverty alleviation.

The objective of this paper is to compare traditional banks to microfinance institutions as to what extent each contributes to poverty reduction. In this sense, we coincide with Jeanneney and Kpodar (2011) in that we characterize financial development as access to financial services in the "banking system" composed of traditional banks and MFIs. Studies such as Khandker (2005) and Mahjabeen (2008) have considered to what extent microfinance has lowered poverty at the local level. More recent theoretical work (Ahlin and Jiang, 2008; Yusupov, 2012; Buera et al., 2012) has suggested the potential for macroeconomic effects of microfinance. For example, Donou-Adonsou and Sylwester (2015) find that microfinance loan growth increases economic growth and total factor productivity in developing countries. In this paper, we take the potential for MFIs to have macroeconomic impacts seriously, especially given the rapid growth in MFIs, and examine to what extent this rise has been able to reduce poverty at a national level. Comparing this effect to that from traditional banks helps to place any impact in better context as well as to see if MFIs do, indeed, play an enhanced role in reducing poverty.

An example of such a comparison comes from Thanvi (2010) for the Cooch Behar District of West Bengal, India. Thanvi describes a shift from banks to MFIs due to the unavailability (in part or total) of loans from banks. For Thanvi, MFIs supplement the role of banks by reaching the unreached. In this way, one might infer that MFIs should be able to reduce poverty to a larger extent than banks. However, Thanvi also documents that MFIs charge higher interest rates. One MFI, Bardhan, charges an effective rate of 24%, twice that charged by banks. These higher rates raise questions regarding how effective MFIs are at reducing poverty.

This study employs an instrumental variables approach to a panel of 71 developing countries over the period 2002–2011. The results indicate that banks reduce poverty when poverty is measured by the headcount ratio or the poverty gap but not when poverty is measured by the squared poverty gap. On the other hand, MFIs do not appear to have any impact on poverty regardless of the measure employed. While the results suggest that banks play a role in reducing poverty, MFIs do not appear to have done so, at least at the aggregate level.

The paper is structured as follows: Section 2 provides a more detailed description of the literature. Section 3 describes the data and outlines the methodology. Section 4 presents and explains the results. In Section 5, we provide a robustness check using an alternative measure of financial development, and Section 6 offers concluding discussion.

2. Literature review

Greenwood and Jovanovic (1990) develop a model where financial intermediaries analyze imperfect information and channel funds from savers to borrowers. Their model includes a participation cost, a lump-sum fee that agents must pay to participate in the financial sector. This fee effectively keeps the poor from taking advantage of opportunities in the financial sector. Not only would the poor not benefit, but the income distribution could even widen between low and high income agents. This implication is endorsed by Stiglitz (1993) for whom financial market failure is the fundamental cause of poverty in developing countries. Applying this model to our case, the participation fee would likely be lower for MFIs and so they would be better able to obtain credit, invest, and escape poverty. Of course, whether it is sufficiently low so as to benefit the poor is another question.

Such considerations have not been examined at a macroeconomic level where, as stated, economy wide measures of financial development are used. Jalilian and Kirkpatrick (2002), Beck et al. (2008), and Jeanneney and Kpodar (2011) have used the trickle-down approach – an indirect effect of financial development on poverty reduction through economic growth – to investigate financial development and poverty reduction in developing countries and find that financial development fosters growth which then reduces poverty. For instance, Jalilian and Kirkpatrick (2002) argue that by widening financial services access to the poor, their income will grow, which eventually will reduce poverty. For example, an insurance service provided to the poor can better protect them against income shocks. Other studies have investigated the direct relationship between financial development and poverty reduction or the income distribution. These studies include Honohan (2004), Jalilian and Kirkpatrick (2005), Beck et al. (2007), Perez-Moreno (2011), Jeanneney and Kpodar (2011), and Sehrawat and Giri (2015) although they differ both in terms of what proxies for financial development they use as well as in their outcome variable (headcount ratio, poverty gap, Gini coefficient, etc.).

Given the purported role of MFIs in assisting lower income households, various studies have focused upon these institutions and examined to what extent they can help raise living standards among the poor. Several studies have found beneficial effects upon consumption or income (Khandker, 2005; Kondo et al., 2008; Berhane, 2009; Collins et al., 2009; Imai and Azam, 2011; Berhane and Gardebroek, 2011), housing conditions (Berhane, 2009; Berhane and Gardebroek, 2011), village-level wages and investment in agriculture (Kaboski and Towsend, 2012), savings (Kondo et al., 2008; Dupas and Robinson, 2009), and health and food security (Stewart et al., 2010). Other studies remain skeptical. For instance, Chowdhury (2009) casts doubt on the effectiveness of microfinance as a poverty alleviation tool given the profit-seeking nature of financial institutions. He argues that microfinance, though it provides a safety net and can help smooth consumption, needs its borrowers to have business skills and marketing information for loans to expand businesses and create jobs. Likewise, Copestake and Williams (2011) argue that MFIs by themselves cannot bring sustainable growth and reduction in