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The role of financial development in poverty reduction☆

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Abstract

This paper investigates whether financial development is conducive in poverty reduction. Separating financial development into four categories and using newly available data this paper finds that both financial deepening and greater physical access is beneficial in reducing the proportion of people below the poverty line. Using alternative measures of financial instability, the results also challenge existing findings that it may increase the incidence of poverty. In addition, the results remain robust even when controlling for mobile money, providing a further valuable contribution to the literature.

JEL classification: G21; I3; O16

Keywords: Financial development; Poverty reduction; Mobile money

1. Introduction

As the millennium development goals (MDGs) drew to a conclusion in 2015, one of the main aims was to halve the poverty headcount rate worldwide. Alongside several other policies, promoting financial sector development was one of the key strategies to achieve this outcome. Specifically, policy was geared at increasing the depth of the financial sector, but recently, greater attention has been paid towards its inclusiveness or outreach. Indeed, since the turn of the Millennium, many technocrats argued that increasing access to the financial system may be as important in reducing poverty as increasing its depth. Furthermore, half way through the 15 year period of the MDGs, the world suffered one of the largest financial crises since the Great Depression of which the financial sector bore the brunt of the blame. This led to policymakers becoming more attentive to the issue of financial stability, adding a further policy goal to their financial sector objectives. A World Bank study by Cihak et al. (2013) categorises financial development into four components to measure the characteristics of the financial system. The first category is the size of the financial system (its depth) and the second is the accessibility of the financial system. This is defined as the degree to which individuals and firms can use financial services. The third category examines the efficiency of the financial sector, examining how well financial intermediaries can facilitate financial transactions at the lowest cost possible, and finally the stability of the financial system, and its robustness to withstand negative shocks. To this end, this paper examines all four aspects of financial development in one comprehensive study, examining the role of financial sector development in poverty reduction. The results show that financial development may be poverty reducing, drawing from a sample of developing countries over the period 2004–2015. Whilst the results are largely consistent with many prior empirical findings, a key contribution of this paper is that the results remain robust when controlling for a dummy variable that captures the presence of mobile money in an economy. As mobile money may result in the poor no longer requiring formal financial services, the results show that despite this innovative shock, formal financial development is still important in the quest to alleviate poverty. The majority of prior studies examining the role of finance on poverty examine the role of financial deepening in poverty reduction. Beginning with Honohan (2004), studies have shown that financial depth is negatively related with headcount poverty. The causal nature

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of this relationship was investigated by Perez-Moreno (2011) who shows that financial development may reduce headcount poverty, although there are caveats in his findings. For example, the results are sensitive to the time periods studied, and depend on the nature of the financial development indicator used. Perez-Moreno (2011) shows that when measuring financial deepening using liquid liabilities to GDP, the results are more supportive that finance reduces poverty than when using credit to the private sector.[1] A recent study by Donou-Adonsou and Sylwester (2016) provides evidence that financial sector development may reduce poverty using a plethora of poverty measures as their dependent variables. Using both depth measures of formal and informal financial sector variables, they find that whilst both contribute to poverty reduction, the impact of the informal sector is not as strong as the formal banking sector. Studies examining the impact of financial access on the poor are far fewer than those on financial deepening. One possible reason for this is due to data availability, however, Burgess and Pande (2005) provide a comprehensive study on India. The authors study the impact of the Indian Social Banking Experiment, where the Bank of India decreed that for every bank branch opened up in a previously served area, an institution had to open four branches in currently unserved areas. The impact on poverty was dramatic with the rural headcount falling by 14–17 percentage points. Notably, rural savings accounts increased by over 100 million and rural loan accounts by 25 million. A further study on financial access is carried out by Mookerjee and Kalipioni (2010). The authors investigate the link between financial access and income inequality finding a negative and significant correlation between bank branch expansion and the Gini coefficient. The additional two characteristics of financial development are financial sector efficiency and financial stability. Banking sector efficiency is primarily constructed to measure the cost of intermediating credit and its role in poverty alleviation may not be obvious. However, the most efficient banks should be able to deliver financial services to the poor in a cost effective manner, for example via low interest rate spreads, and using quick, cheap administrative procedures to facilitate service exchange.[2] As a result, a more efficient financial system should be in a strong position to identify the poor who are low credit risk, provide them with the correct services they require, and avoid costly account fees so that financial efficiency should be poverty reducing. Nevertheless, the impact of financial sector efficiency on poverty is largely under-researched and to our knowledge this is one of the first empirical studies to investigate it. Akhter and Daly (2009) show that financial instability is an unintended negative consequence that arises with greater financial development (deepening of the financial sector). The authors show that financial development is conducive in reducing headcount poverty; however, financial instability which accompanies financial deepening is harmful to the poor. A further study by Guillaumont Jeanneney and Kpodar (2011) confirms these findings, showing that although financial instability arising from financial development hurts the poor (measured by the income share of the lowest quintile), the benefits of financial development outweigh the costs overall. The remainder of this paper is structured as follows. Section 2 describes the data set and explains the estimation method. Section 3 presents the results and Section 4 concludes.

2. Empirical strategy

The baseline model estimates the poverty headcount ratio, conditional on financial development and a matrix of covariates that are shown to impact poverty. These include GDP per capita, trade openness, the inflation rate, government spending, economic growth and mobile money. The data is averaged from 2004 to 2015 to form a cross-section due to the limitations in the dependent variable.[3] Data on the headcount ratio is scarce and for a number of developing countries there are only one or two observations throughout the sample period. In more economically developed countries (middle income economies) where poverty is still largely prevalent, poverty data is far more abundant and in some cases a complete time series is available. Whilst a panel would permit the use of additional estimation techniques such as fixed effects that may capture unobserved country heterogeneity, there would be several drawbacks using this approach. First, we would have to estimate many additional parameters and as many cross-sections only have a few observations there would not be that many gains in degrees of freedom using this approach. Additionally, there are certain countries with far more reliable and historical data, specifically eastern European economies and Latin American countries. Adopting annual data would result in sample bias, with the majority of the data coming from middle-income countries as opposed to the poorest countries in the world, specifically sub-Saharan Africa. Finally, the data has far more between variation than within variation. This may result in variables that are economically significant being found to be statistically insignificant purely due to the variation in the data. A further method that was possible was to average into three non-overlapping four year periods. Again, this approach was rejected as for many poor countries, the four year averages were driven by one observation. Additionally, this would only provide two time periods when examining financial stability and efficiency. As a result, due to the data limitations we adopt a cross-sectional study. Nevertheless, this study offers an important benchmark for further studies to use as a springboard once more reliable data is made available in future. The data is available from the *World Development Indicators*, and we bring together two further databases to estimate the impact of financial development in poverty reduction. These databases

[1] The literature supports the view that the variable private credit best captures the lending channel to the poor. On the other hand, liquid liabilities to GDP may capture the McKinnon conduit effect, which assumes that even if financial institutions do not provide credit to the poor, they are still useful to the poor because they offer a profitable way to save.

[2] For example, as Prokopenko and Holden (2001) suggest, high interest rate spreads suggest the financial sector's ability to resolve the problem of informational asymmetries is low, indicating many credit-worthy but poor borrowers may be excluded from the financial system.

[3] For, the two variables that are used to measure financial stability and efficiency, the data is averaged from 2004 to 2012.