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Looking for Long-term Wellbeing: Access to Credit and the Impact on Rural Households

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The need is great

In developing countries, credit market imperfections have particularly serious impacts on rural economies. Farmers who have trouble getting credit may hold portfolios of less risky but less productive assets, undermining their ability to accumulate wealth over time. This impact goes far beyond just limiting investments in physical capital. If parents cannot borrow to finance their children's schooling, for example, the wellbeing of future generations is compromised. In short, credit constraints may result in behavioral adaptations that only work to keep people in poverty.

Worldwide, basic subsistence food prices are low. In poor agrarian economies, many families move away from subsistence farming to cash cropping in order to increase incomes. Poverty reduction policies often cite commercialized agriculture as providing opportunities by which households can increase production, gain higher incomes, and increase overall wellbeing. Yet, many cash crops are subject to greater production risk than basic food crops, and commercialized farmers are likely to have a greater demand for credit to finance production and as a form of insurance and consumption smoothing. The spread of rural financial institutions in certain regions dominated by commercialized farming reflects this higher need for credit. Should cash crop farmers be unwilling or unable to assume loans, however, their ability to accumulate assets and increase the family's welfare may be limited.

Research usually focuses on short- and medium-term impacts on families as a result of having little or no access to credit markets. The project "The Long-run Effects of Access to Financial Services on Asset Accumulation, Economic Mobility, and the Evolution of Wellbeing: Revisiting Agricultural Commercialization in Bukidnon, 1984-2003" provides a rare opportunity to study the long-term impact credit constraints have on human and physical asset portfolios, economic mobility, and wellbeing for households that shifted to commercialized agriculture. A longitudinal study like this will add to the growing body of evidence that policies and interventions do have long-term impacts on the ability of individuals and families to overcome poverty. The study will enable policymakers to assess the relative effectiveness of various policies in reducing poverty in the long run.

Mapping areas of credit constraints

The project's major hypothesis is that lack of access to credit limits families' ability to acquire physical assets and invest in their children's education. The assumption is that children from families that were credit constrained in the past will have fewer assets, less education, and lower levels of wellbeing than those from families who were less constrained. Limited access to credit could also block potential pathways out of poverty. For example, commercial agriculture, which could provide new opportunities for increased incomes, might be less attractive to households that do not have access to credit. It is possible that households with more collateral or land would be the first to adopt commercial agriculture, with potential negative effects on income distribution. However, if credit were more widely available to smallfarmers, whether through formal or informal mechanisms, a broader spectrum of society could adopt commercial crops. This issue is relevant given the importance of commercial crops and agricultural exports for developing countries (Table 1).

Table 1. Developing countries' dependence on agriculture

	Latin America and Caribbean	Sub-Saharan Africa	South Asia	East Asia and Pacific	All developing countries	Least developed countries
%of GDP from agriculture	7.9	17.9	28.3	15.4	13.2	36.7
Rural population (% of total population)	26.5	68.4	73.2	67.7	60.6	76.4
Ag. exports (% of total merchandise trade)	28.3	23.9	17.9	11.7	15.3	35.3

Source: Diao, Diaz-Bonilla, and Robinson (2003)

Mindanao in the Philippines provides a policy-relevant case study of possible avenues for asset accumulation for credit-constrained households engaged in different types of crop production. Mindanao is the Philippines' poorest region, with a long history of armed conflict. In 1977, when a sugar mill was constructed, many families shifted from farming corn for both subsistence and the market to farming sugar for sale. A disproportionately low number of the smallest farms, however, adopted sugarcane. In 1984, households were surveyed to examine the effects this shift to commercial production had on them, particularly with regard to consumption and nutrition. The study found that a typical household that adopted sugarcane devoted more than half of its area to sugarcane and the remainder to food and other crops (Table 2). A household that did not adopt sugarcane kept almost two-thirds of its land in subsistence crops. The introduction of export cropping led to a significant deterioration in access to land, as smallholder corn tenant farms using primarily family labor were consolidated into larger sugar farms using primarily hired labor. Households that grew sugarcane raised their income levels, but this did little to improve nutrition in the household. Also, women's participation in own-farm production declined.

A revisit to the site in 1999 and a random sampling of previously surveyed households indicates that a very high percentage of households and individuals can be found for resurvey. This creates the opportunity to examine more than the immediate effect of credit constraints on a household. Over the past 18 years, agriculture has become even more commercialized. Sugar has been adopted widely (the exception being households with farms not accessible by trucks for hauling sugarcane). Corn producers have likewise shifted to hybrid corn, an important input for commercial livestock producers. Only relatively small areas are devoted to corn production for home consumption.

By resurveying original respondents and their children from agricultural households first surveyed almost 20 years ago, the project will identify the differential effects of credit constraints on households that engage in commercial agriculture as opposed to food crop production. This will help in understanding how access to and use of rural financial services affects patterns of physical and human capital accumulation, economic mobility, and wellbeing over a long period of time. For example, we will be able to test whether adult children's education, nutritional status, and household assets are affected by the previous credit status of their parents. Thus, it will be possible to link this research on rural financial markets to many important issues of intrahousehold resource allocation that have been difficult to explore due to a limited number of panel data sets that cover a sufficiently long time period.

Increased commercialization of agriculture in rural areas raises many pressing policy concerns. USAID's Growth with Equity in Mindanao program is helping introduce or expand agricultural commodities that offer promise as export crops. This program and similar ones will benefit by a clear understanding of how a move into cash cropping impacts a household's welfare over time. Strategies can be devised to overcome potential problems commercialized farmers will face. Improving financial services for these farmers is one way policymakers hope to reduce poverty in the region, and USAID is working with large numbers of rural banks and credit cooperatives to help them develop the capability to profitably serve the microenterprise market. The project will be able to provide answers as to who is able to access these credit sources, who is not, and how this affects both types of households over the long term.

Who's in, who's out, and the long-term effects

By identifying credit-constrained households and the source and depth of the constraints, the project will create a picture of the external mechanisms and household choices that keep certain rural families from accessing available credit sources. An important first component is to distinguish between *access* and *participation*. A household participates in a financial market only if it actually borrows from a source of credit, yet a household may benefit from mere access to credit even if it does not actually borrow. By including explicit questions on access to credit as well as actual loans taken out, the project will delineate reasons why a household is kept from financial markets.

Table 2. Change in cropping pattern with adoption of new cash crops, Bukidnon, middle tercile of farm size groups, 1984/5

	Area with new cash crops (% of total farm area)	Area with staple food crops (% of total farm area)	Area with other crops (% of total farm area)
Sugarcane adopter	52.0	32.4	15.6
Non-adopter	0.0	66.1	33.9

Source: von Braun (1994)

What are the long-term effects from being kept out or choosing to stay out of the financial market? Access to and participation in financial markets affects household welfare through income generation, asset investment strategies to smooth disposable income over time, and use of credit to finance immediate consumption needs. These pathways provide opportunities to finance factor purchases and enhance the level of the household's human and physical capital, while decreasing the holding of assets with low risk-adjusted returns, reducing assets held for precautionary savings, and increasing assets held for speculative purposes. In addition, access to capital increases the risk-bearing capacity of the household, enabling the adoption of riskier but more profitable income-generating activities.

This project will show how access to financial markets affects household decisions in production, consumption and investment in physical and human capital. It will further demonstrate how these decisions affect agricultural productivity, farmers' choice of economic activity, and the human capital achievement of their children. At each stage, the analysis accounts for differences in the effects of access to credit markets and savings schemes on farms growing cash or food crops.

Increasing participation in financial markets

The goals of the project are to:

- characterize the evolution of rural financial markets in the Philippines, based both on the demand and supply side, accounting for differences in markets arising from introduction of commercialized farming,
- characterize the nature of credit constraints faced by rural households,
- understand the mechanisms households of different asset classes and commercial orientation use to cope with credit constraints, and,
- analyze how credit constraints have affected patterns of physical asset accumulation, investment in children's human capital, and economic mobility.

By choosing a cash crop, farmers gain affordable access to processing facilities and marketing services. This may relieve the working capital constraint through production credit provided directly from the mill or through lower interest rates, which represent the reduced risk premium for lenders to commercialized farmers. These changes result in higher credit and input use for commercialized farmers. Relaxing credit constraints has a larger marginal effect on agricultural production for cash crop farmers but a larger marginal effect on investment in the human capital of children for food crop farmers. (Of course, average investments in human capital of children may be higher for cash crop farmers whose incomes are higher.) These results can explain the differences in sources of demand for credit for sugar and corn farmers in the Philippines.

Rural credit markets in the Philippines have been characterized by a heavily regulated formal sector with minimal reach to poor farmers, as well as by the prevalence of informal credit. Directed credit programs have been a prominent part of the rural financial landscape, although these are gradually being phased out in the country's financial market liberalization process. In the meantime, microfinance institutions have been increasing in rural areas. These include group-lending programs, microfinance enterprises with low transactions costs and frequent repayments, cooperatives offering financial services, and rotating savings and credit associations. (Group lending accounts for only a small proportion of microfinance institutions in the Philippines.) The project will show the effectiveness of the various credit institutions that spring up in areas where farmers are shifting to commercialized agricultural production. While recent studies have focused on growth of both formal and

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semiformal financial institutions in the Philippines, studies that attempt to connect the demand side with the supply side are generally lacking. Building a lasting and sustainable rural financial sector, however, depends upon knowing what financial products and services are of value to rural clients, and then being able to provide these.

The project will investigate how the timing and location of the development of these institutions reflects the failure of formal savings and credit markets, the prevalence of credit constrained households, the sources of demand for credit, and the degree of commercialization of production. Clarifying the nature of financial constraints faced by rural households and pinpointing gaps in existing systems of service delivery will provide a much firmer basis to formulate newer and better policies that ensure a tighter—and therefore more productive and sustainable—fit between demand and supply.

By gathering perceptions of changes that have occurred in the communities over time, including the development and relative importance of different types of financial institutions, perceptions of poverty, perceptions of strategies used by households and individuals to improve their wellbeing over time, the qualitative aspect of the project will establish a timeline for the development and spread of village financial markets. The goal will be to show not only how financial institutions have increased in the region, but also who is able to access this availability of credit and what factors prevent others from doing the same.

Policy relevance

The Philippines has the following development priorities: (1) develop the banking and capital market, including improving financial intermediation through support to microfinance institutions, (2) develop Mindanao as a food basket and exporter of high value agriculture and fisheries products, (3) protect vulnerable groups through better delivery of social services, including microfinance programs.

This project will target its findings to an audience of policymakers and development practitioners as well as donors who can make decisions regarding interventions that have the potential to reduce poverty by improving the functioning of rural financial markets. Capacity building activities will include training economics faculty in Mindanao, funding graduate theses research, and coordinating visits by collaborators to each others' institutions.

Suggested reading

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