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Credit Program Participation and Child Schooling in Rural Malawi

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Summary. — We evaluate the impact of agricultural credit program participation on children's school attendance in rural Malawi. Our paired-site sampling survey reveals that credit uptake decreased school attendance by young girl children. This finding raises concerns that young girl children are exploited as child labor, either at home or in the field, when working adults become more involved in income-generating activities financed by credit. The data, however, do not show clear evidence for young girls staying at home to do household chores or working in the fields in households that obtained credit, but instead find simultaneous occurrence between attending school and taking responsibilities for domestic chores by young children. It would appear, therefore, that credit uptake delays the realization of this concurrence among young girl children and leads to delayed school enrollment.

Key words — micro-credit, education, child labor, Sub-Saharan Africa, Malawi

1. INTRODUCTION

Microfinance institutions, and particularly micro-credit, have attracted much attention from development practitioners because of the potential that micro-credit and savings have for reducing poverty. By providing capital to limited-asset and low-income households for investing in agriculture or micro-enterprise development, household income is increased. This should result in increased expenditures on household needs and increased consumption for household members, including children's education (Armendariz & Morduch, 2005; Khandker, 2000). Micro-credit, however, could decrease the schooling levels of children because the labor demand on children is increased for either household production or chores as working-age adults are more involved in income-generating activities financed with credit (Morduch, 1999). Therefore, the impact evaluation of micro-credit programs on child schooling is an empirical question.

There seem to be several more possible pathways through which micro-credit influences the progress of human capital accumulation. Jacoby (1994), for example, studied the effect of borrowing constraints on the timing of human capital investment in Peru and found that higher family income and more durable-goods holdings enhance school progress in credit-constrained households but not in un-constrained households. His finding thus suggests that micro-credit, by relaxing household credit constraints, could improve school progress if loan services are delivered to constrained families. Wydick (1999), on the other hand, argues that the effect of credit access can be either positive or negative. His argument is that, if a relaxation of working capital constraints allows the family to substitute hired labor for the labor of children, a major effect of access to credit is positive. Yet, an opposite effect arises if the marginal product of family labor increases as a household enterprise becomes more heavily capitalized and raises the opportunity cost of schooling. His study in Guatemala shows that the latter effect is dominant and microenterprise lending has a negative effect on child schooling. Hazarika and Sarangi (2008) also examine the effect of the expansion of credit access, measured by self-assessed credit limits, on children's school attendance in rural Malawi. Their investigation shows that, while more access to credit leads to an increase in children's working hours, there is no significant impact on child schooling. Our study is similar to Hazarika and Sarangi's, however, we evaluate the effects of actual credit use, a more direct measure for investigating the impacts of micro-credit program on child schooling. In addition, by utilizing an original data set recently collected by a paired-site sampling survey in rural Malawi, we intend to add one more piece of evidence.

The importance of this study can be found in the context of child labor as well. In Sub-Saharan Africa, even young children are responsible for certain kinds of household chores such as cleaning, cooking, fetching water, and collecting firewood. Furthermore, child labor becomes more valuable as children become older because even children and adolescents can substitute for adult labor in agrarian economies; in Malawi, child labor is used in most of the tobacco cultivation chores such as watering, weeding, transplanting, and picking (Otañez, Muggli, Hurt, & Glantz, 2006). Family labor is a precious resource for poor households and labor allocation, including child schooling, is a critical decision for their subsistence.

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A series of theoretical studies investigates the determinants of child labor. Baland and Robinson (2000) show that, even when parents are altruistic, child labor is inefficient if (1) negative bequest is not allowed or (2) the capital market is imperfect. Ranjan (1999) also argues that poverty in combination with credit constraints can give rise to inefficient child labor. By developing an overlapping generations general equilibrium model, Ranjan (2001) shows how inefficient child labor arises due to credit constraints. These studies suggest that the expansion of access to credit reduces children's likelihood of being involved in child labor, and enhances investment in human capital. Empirically, with cross-country comparison, Dehejia and Gatti (2005) examine the role of financial development and income variability on child labor and conclude that the development of financial services, by reducing the income variability, decreases child labor. Ersado (2005) uses data from three counties to show that improving access to credit has a great potential to alleviate child labor and enhance school attendance in rural areas.

Another line of literature has investigated the trade-off between child labor and schooling by using household surveys in a specific country. Amin, Quayes, and Rives (2006) test if both market work and household work deter schooling in Bangladesh. Binder and Scrogin (1999) study the relationship between labor force participation and household work in Mexico. Ravallion and Wodon (2000) examine whether child labor displaces schooling in Bangladesh. Furthermore, Nankhuni and Findeis (2004) investigate how natural resource collection work adversely affects children's schooling in Malawi. Despite the enormous efforts on this issue, however, conclusions have been very controversial. Our study thus also contributes to this line of the literature.

The following section contains a description of the history and features of financial institutions in rural Malawi, particularly our target microfinance institution: Malawi Rural Financial Company. Section 3 addresses selection problems that confound program evaluation and explain how we treat such problems with our paired-site sampling survey design and econometric techniques. Section 4 provides our empirical results, and Section 5 summarizes the findings of this study and concludes our discussions.

2. RURAL CREDIT PROGRAMS IN MALAWI

Rural financial services in Malawi have been historically targeted to estates producing cash crops since before independence. Government policy after independence continued support of estate production and financed the development of tobacco estates. Marketing board surpluses were channeled as subsidized loans through banks to the estate sector (Kydd & Christiansen, 1982). By 1980, over 50% of commercial bank credit went to estates, mostly for burley tobacco production (Mkandawire & Phiri, 1987). Smallholders producing for local markets had little access to formal credit and were limited to informal lenders. A credit revolving fund established by the National Rural Development Programme in the early 1980s was reported to favor better-off farmers, rather than smallholders. Beginning in 1987, the Ministry of Agriculture offered agricultural production credit for hybrid maize to small farmers through the Smallholder Agricultural Credit Administration (SACA). Because of severe droughts and credit defaults in the early 1990s, SACA eventually collapsed.

In spite of financial liberalization policies[1] in the recent past, including increased participation of the private sector in banking, savings and lending services for the great majority of rural residents have not increased, and may have even decreased (Burritt, 2006). Few financial services in Malawi are licensed to accept savings, thus this service is very limited. The only formal savings institutions broadly available to rural residents are the Malawi Savings Bank and the Malawi Rural Finance Company. Credit cooperatives, such as SACCO and MUSCCO, service both rural and urban areas, and in the former areas loans are used for agricultural production and nonfarm micro-enterprises (Diagne & Zeller 2001).

Microfinance programs were introduced in the late 1980s, one of the earliest being the Malawi Mudzi Fund supported by IFAD and based on the Grameen model (Chirwa, 1998; Hulme, 1991). Other microfinance providers operated by NGOs and donor agencies in the last 15 years, such as Pride Malawi and FINCA, have attempted to service smallholder farmers, but they are dependent on commercial banks for payment services. Since commercial banks have reduced their presence in rural areas (Burritt, 2006), this constrains most rural microfinance providers.

Malawi Rural Finance Company (MRFC) is the largest rural financial institution providing agricultural and business loans to smallholder farmers in Malawi and the only microfinance provider with national coverage. MRFC took over the bankrupt Smallholder Agriculture Credit Administration (SACA) in 1993 with financial and technical assistance from the World Bank, and started its operation in 1994. MRFC inherited much of SACA's infrastructure consisting of rural extension service offices in the Extension Planning Areas (EPAs).[2] Since 1995, MRFC has absorbed other rural financial projects such as the Malawi Mudzi project, the Food Security Program, and Promotion of Microenterprises for Rural Women (PMERW supported by GTZ).

According to its 2004 annual report, MRFC has headquarters in the capital city Lilongwe, and has seven branch offices, 23 satellite offices, and 122 field offices all over the country. The total loan portfolio in 2003–04 was 1,329.9 million MK (about 10m US$) with 20,455 loan accounts and 170,840 loan customers (of which 68,366 were women). Loans for agricultural production totaled 1,001.7m MK and 328.2m MK for micro-enterprise activities; the average loan size was 7,252 MK (about 70 US$). While this microfinance institution accepts savings deposits, about 70% of these are really forced savings to collateralize loans (Burritt, 2006).

Agricultural production (seasonal) loans are provided mostly in kind, that is, seeds and/or fertilizer, while business loans are distributed in cash. In the mid-1990s, MRFC's agriculture production loans were made mainly for hybrid maize production; lately, however, MRFC targets farmers who produce cash crops such as tobacco, cotton, and groundnuts because these goods are more profitable than maize. Tobacco production, in particular, has become a major income source for smallholder farmers, although the recent downtrend of world tobacco prices is reducing profits from tobacco production.

MRFC provides two types of agricultural production credit: individual (called estate) and group (club) lending; the latter are considered micro-credit. In either case, cash and/or other types of collateral are required. Smallholder farmers without land titles are required to belong to clubs (credit groups) to participate in the program, and to assume collective liability for the total amount of loan that the group borrows from MRFC. Until recently, there was one MRFC field office in each EPA; in order to reduce operation costs the number of MRFC field offices has been decreasing and many field offices have become responsible for multiple EPAs. Each EPA is subdivided into several zones and the MRFC field officer visits