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The Welfare Impact of Land Redistribution: Evidence from a Quasi-Experimental Initiative in Malawi

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Summary. — Land reform may be an effective means of reducing poverty in many developing countries where policy efforts have recently embraced a decentralized market-based approach to land redistribution. We use household panel data combined with a quasi-experimental program to assess the impact of a joint Malawi/World Bank land program on household well-being. Double difference and matching methods are used to address identification sources of bias. Results point to average positive effects on several productive outcomes of beneficiaries, while no effects are found with respect to access to social services. There is also evidence of heterogeneous effects by gender and inheritance systems.

Key words — land reform, program evaluation, community-based rural land development program, Malawi

1. INTRODUCTION

Land is a key component of wealth in many developing countries. High levels of inequality in land ownership have been shown to be detrimental for subsequent economic growth and well-being (Aghion, Caroli, & García-Peñalosa, 1999; Alesina & Rodrik, 1994). Thus, land reform has been viewed by many development experts as a potential strategy for reducing poverty and fostering rural development. Having access to key productive resources such as land enriches the asset base of poor households and carries with it the potential for agricultural production and entrepreneurship as well as social returns in terms of schooling, health, and gender empowerment (Besley & Burgess, 2000; de Janvry, Gordillo, Platteau, & Sadoulet, 2001). Yet, the implementation of land policy reforms is hampered by political constraints and social resistance. Moreover, there is yet enough empirical evidence on the causal effects of land redistribution on rural development and well-being. [1] This is particularly true for recent market-based land programs as opposed to earlier state-led policy reforms (Deininger, 2003). Information generated by impact evaluations may inform policy decisions on whether to expand or modify land programs in order to reach and sustain the final objectives. This paper addresses this issue by assessing the impact of the Malawi Community-Based Rural Land Development Project (CBRLDP) via a quasi-experimental approach.

The CBRLDP initiative is a decentralized market-based land reform carried out in the southern region of Malawi, with the aim of easing land pressure and improving land access to needy rural households. The goal of the intervention implemented by the government of Malawi was to address poverty and stark inequalities in private land distribution, along with land degradation, rural tensions, and land market failures. Government statistics indicate that agriculture is the largest contributor to the Malawian economy – it accounts for 38% of the national Gross Domestic Product (GDP) and 80% of export earnings. The sector also provides employment for 85% of the population. However, land allocation policies in Malawi have supported the concentration of land in a few large-scale estates for decades. In 2002, the Government of Malawi adopted a new National Land Policy to correct some of the historical wrongs on land issues, and in 2005, with financial assistance from the World Bank, started implementing the CBRLDP. The latter is a voluntary land acquisition and redistribution program based on a willing-seller willing-buyer principle and implemented via a quasi-experimental design, i.e., involving the use of beneficiary and non-beneficiary (control) groups.

The CBRLDP final objective is to increase the incomes of about 15,000 poor rural families through the provision of conditional cash transfer to beneficiary households to relocate, purchase, develop, and cultivate (larger) plots of farm land in six pilot districts in Malawi. This paper provides a full impact evaluation of the CBRLDP on farm households' economic outcomes related to production (land ownership, agricultural outcomes, productivity, input use), human- and physical-capital investment (schooling, health, durables, assets), economic well-being (income, expenditure). The analysis is based on a 4-year panel household survey administrated to both treated and control households from 2005 through to 2009. In order to estimate the causal connection between the land project and household-level outcomes, we tackle both issues of selection and (time-invariant) omitted-variable bias by using a difference-in-difference estimator combined with the propensity-score-matching method (Blundell & Costa Dias, 2000; Wooldridge, 2001). In addition, by presenting

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year-to-year estimated impacts separately, we are able to explore whether the land reform can be beyond its initial impact (i.e., up to 3 years later).

Our findings show that the market-based land program in Malawi significantly increases land holdings, agricultural output, and income of beneficiary households and in general, these increases are stable, or slightly decline over time. Yet, the reform fails in providing households with better access to social services such as schools and health centers, especially in the short-term. Moreover, heterogeneous treatment effects by gender and inheritance systems show that women may potentially gain more in terms of well-being and socio-economic status through more targeted land policies.

The rest of the paper is organized as follows. Section 2 discusses the linkages between land distribution and economic well-being as explored in the existing literature. Section 3 describes the context of land policy reform in Malawi, the background of the CBRLDP, its components, and implementation process. Section 4 describes the data and reports some descriptive statistics. The empirical strategy, results from the econometric analysis and discussions on the impact of the CBRLDP are presented in Section 5. Section 6 concludes.

2. BACKGROUND LITERATURE

Economists have extensively investigated the linkages between income or assets inequality and economic growth. By theoretically formalizing the relationship either in a political economy context or in a world of missing markets, overall there seems to be little doubt that there is a strong and negative relationship between wealth inequality and subsequent economic growth (e.g., Alesina & Rodrik, 1994; Bénabou, 1996; Hoff & Lyon, 1995; Persson & Tabellini, 1992). In terms of policy, though, redistributive efforts entail significant hurdles either in terms of efficiency loss or social unrest. This is because marginal redistributive policies may result in lower incentives to create income or accumulate wealth, affecting both poor and non-poor people.[2] On the other hand, while in principle one-time redistribution efforts may avoid the above distortion, such policies are likely to be accompanied by large political opposition such as resistance by powerful lobbies (see Deininger, 2003; Piketty, 2000, chap. 8).

Nevertheless, improved access to land is potentially a key means to alleviate poverty and help rural households to generate higher incomes in developing countries, where the agricultural sector employ large proportions of the population (Binswanger, Deininger, & Feder, 1995; Finan, Sadoulet, & de Janvry, 2005). Increased access to land by the poor can contribute to the reduction of food insecurity, poverty, and inequality as it enables the poor to participate in agricultural production or to have a form of collateral which may open up new opportunities. Moreover, land redistribution initiatives may lead to both equity and efficiency gains if, as supported by the evidence, small farms exhibit higher productivity and these productivity gains cannot be realized by (incomplete) tenancy contracts (e.g., Binswanger *et al.*, 1995).

From an historical perspective, there are several cases of agrarian reforms in both developed and transition countries which have arguably contributed to the own country's industrialization and development processes. Leading examples are the post-world-war II land programs in Japan, Taiwan, and South Korea (according to which tenant farmers received ownership of the same land on which they had been tenants) which redistributed between 30% and 40% of the cultivated area, affecting about two thirds of rural households (see Deininger, 2003; Prosterman & Riedinger, 1987). Similarly, albeit over longer time periods, other reforms in Bolivia, Nicaragua, Peru, and Mexico affected sizeable portions of their countries' arable land endowment and benefited up to a third of the rural population (de Janvry, Gordillo, & Sadoulet, 1997; Deininger, 2003).

In the last two decades, there has been a renewed attention by international donors and national governments in developing countries toward land policy as an effective mean to support development and poverty reduction. In particular, recent experiences of land policy formulation in Southern Africa (e.g., Zimbabwe in the 1980s and South Africa in the 1990s) have been used to redress historical land alienation and promote equity in land property rights in order to attain both economic efficiency and political stability by reducing social conflicts (Moyo, 1995).

The approach to land policy as to achieve these goals, though, has been subject of much debate. The Zimbabwean experience, for example, has followed a radical state-led land redistribution approach through compulsory land acquisition, and has been questioned as a failed bureaucratic and non-transparent case in spite of the scale of and pace of land redistribution occurred (Moyo, 1998). On the other hand, the South African experience has been held up as a more transparent, community driven, and less costly 'market-assisted' approach that has been emulated in the case of similar World Bank-financed experiments, initially in Latin America (e.g., in Brazil and Colombia in the late '90s) and then in other African countries such as Malawi (Deininger, 1999; World Bank, 2009).[3] Thus, community-based and market-assisted programs have been promoted by the World Bank as the best practice in land redistribution strategies in order to remedy to extreme inequalities by offering individual farmers access to land to produce and sustain livelihoods (albeit through relocation)[4] Most importantly, these programs provide grants and initial resources for farmers during the transition.[5] The provision of conditional cash transfers by the government (or foreign donors) is crucial for the success of the reform since if full compensation was paid by beneficiaries there would be no difference from a land sale which, as supported by the evidence, is hard to occur spontaneously (see Binswanger *et al.*, 1995; Feder *et al.*, 1998).

Due to the voluntary nature of program participation and the challenge in having access to (pre- and post-reforms) micro-data on a control group, empirical evidence on the impact of land redistribution policies has been mainly based on aggregate data or typically depends on quantitative information that is often not available through standard household surveys. Cross-country studies provide evidence that lower inequality in the distribution of assets such as land is associated with higher subsequent growth (Birdsall & Londono, 1998; Deininger & Squire, 1998; World Bank, 2001). Among aggregate-level studies, Besley and Burgess (2000) use panel data on the 16 main Indian states from 1958 to 1992 to show that the large volume of Indian land reforms had an appreciable positive impact on growth and poverty reduction. In addition, a specific tenancy reform in the Indian state of West Bengal (Operation Barga) has been shown to increase farm productivity (Banerjee, Gertler, & Ghatak, 2002). By revisiting the latter evidence with disaggregated farm level data, though, Bardhan and Mookherjee (2011) find that the direct positive effects on tenant farms are overshadowed by spillover effects on non-tenant (e.g., through the land rental market) and dominated by the effects of input supply programs and irrigation expenditures of local governments. These results highlight