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Land markets and the distribution of land in northwestern Tanzania

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A B S T R A C T

Land market transactions can have potentially divergent effects on the distribution of land. While they may lead to a concentration of land in the hands of a wealthy minority, the market can also serve as an alternative avenue of land access for those with a limited inheritance. This paper explores the distributional implications of land sales and rental markets in northwestern Tanzania. Using household-level data collected in 2014, we find that households use the land market (particularly the sales market) to adjust their farm size to compensate for a small inheritance, while households with a larger initial endowment are more likely to dispose of land, including through the market. Our results suggest that the local land market, characterized by widespread participation, ultimately increases the equitability of land distribution.

1. Introduction

Land markets are an important avenue through which small-scale farmers in sub-Saharan Africa gain access to land. Yet land markets, particularly those operating in customary settings, are poorly understood (Chimhowu and Woodhouse, 2006), and the impact of sales and rental transactions on land access and distribution in developing countries remains a contentious topic. Equitable land access is widely recognized as important for both the pace of agricultural growth and the extent to which such growth will reduce poverty (Deininger and Squire, 1998; Ravallion and Datt, 2002; Jayne et al., 2003). However, empirical evidence on which to base decisions regarding the promotion or restriction of land markets is thin (Deininger et al., 2009).

This paper speaks to this issue by first exploring descriptively whether the distribution of operational land holdings in northwestern Tanzania is more equitable than the distribution that would arise from inheritance alone. Econometric methods are then used to discern the relationship between a household's initial endowment (inherited land) and land market behavior. The direction of this relationship can reveal whether better-endowed households expand their landholdings through the market, or conversely, whether lesser-endowed households use the market to compensate for a limited inheritance. From this, we can discern the extent to which land markets are used to redistribute land between initially land-rich and land-poor households.

As a preview of our results, we find that land markets are characterized by widespread participation and appear to be growing in prevalence. Households with limited or no land inheritance are more likely to access land through the sales and rental markets, while those with a larger inheritance are more likely to dispose of land, including through the market. Together, these results suggest that land market transactions have an equalizing effect on land distribution in our study area. This is consistent with the finding that the distribution of operational landholdings is more equitable than that of inheritances.

We make several contributions to the existing literature. First, we provide descriptive evidence regarding land market activity, inclusive of both rental and sales markets. The existing literature on land markets in sub-Saharan Africa tends to focus on the rental market (Holden et al., 2009; Jin and Jayne, 2013; Chamberlin and Ricker-Gilbert, 2016). However, we demonstrate that land is commonly exchanged on the sales market in northwestern Tanzania, and furthermore, this may be a growing trend. Relatedly, we provide evidence on market performance in a country where land administration has long been the responsibility of democratically elected village authorities (Daley, 2005a,b), rather than traditional (tribal) leaders. This complements studies in other contexts to highlight the form that land markets may take under this alternative governance structure. Specifically, we expect that land markets are more likely to emerge and function fluidly where land is not under the jurisdiction of traditional hierarchies.

Second, we add to a thin body of knowledge in sub-Saharan Africa regarding how land markets mediate the distribution of land established through inheritance (Baland et al., 2007; Yamano et al., 2009; Ainembabazi and Angelsen, 2016), and this is the only such paper from Tanzania. This yields important policy implications regarding whether land markets in Tanzania should be restricted or fostered if equitable

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land access is set as a goal. Third, unlike studies that measure initial land endowment through the inherited land that has been retained (e.g., Yamano et al., 2009), we also measure inheritance through retrospective self-reports. This provides a more complete and accurate measure of land inheritance. Furthermore, unlike studies that measure inheritance with consideration of father-to-son bequests only (Baland et al., 2007), we capture inheritance inclusive of the land inherited from the families of both men and women. Over one quarter of households in our study site have received some land from the wife's (or female head's) family. This unique approach produces more accurate measures of historical inheritance.

The paper is organized as follows: Section 2 includes a literature review on the relationship between land distribution and land markets, in addition to background on Tanzanian land policy. Section 3 provides a conceptual framework of household-level land market behavior, and Section 4 introduces the data set. Descriptive statistics are presented in Section 5, while Section 6 includes results of our econometric analysis. Section 7 concludes.

2. Background

2.1. Land markets and land access

Equitable land access is recognized as necessary for agricultural growth and poverty reduction in developing countries. In a cross-country comparison spanning several continents, relatively egalitarian patterns of land distribution are seen to generate higher rates of economic growth (Deininger and Squire, 1998). This is partly due to a negative relationship between land concentration and agricultural efficiency, as occurs when large landholdings are not cultivated and rather held as speculative investments (Vendryes 2014). It can also be attributed to the inverse farm size-productivity relationship, wherein smaller farms are characterized by higher agricultural productivity. Such a relationship is found with remarkable consistency in sub-Saharan Africa (Holden and Otsuka, 2014; Larson et al., 2014).[1] In general, wherever an inverse relationship between farm size and land productivity can be found, land concentration leads to lower efficiency (Vendryes 2014).

In addition to contributing to economic growth, equitable land access can improve the poverty-reducing effects of such growth by ensuring that gains are more widely shared. In contrast, in settings of concentrated land access, growth can lead to increased inequality as the gains are usurped by those at the top of the income distribution (Deininger and Squire, 1998). In rural populations, land and labor are the main factors of production held by households, with land the primary asset used to build wealth (Vendryes, 2014). For this reason, there exists across rural Africa a strong relationship between land access and household income (Jayne et al., 2003; Krishna et al., 2006), making the distribution of land a prime focus of poverty reduction efforts.

Although not often acknowledged in policy discourse, the land market constitutes an important avenue of land access for rural households in many countries. These 'vernacular' or 'informal' markets operate in customary settings, often outside of a formal legal framework. Although they lack statutory protection, they possess social legitimacy and are of growing importance in Africa. Their prevalence has been noted in a number of countries, including Ethiopia, Kenya, Malawi, Niger, Nigeria, Tanzania,[2] and Uganda (Holden et al., 2009; Deininger et al., 2017). Nevertheless, policy discourse on poverty in Africa often relies on a perceived dualism between customary and statutory land systems, wherein customary tenure is associated with inalienability and guaranteed access. In Zambia, for example, the official definition of customary land even relies on its assumed non-market character (Sitko, 2010). Policies aimed at formal land registration are often based on the premise that state-recognized property rights are a prerequisite for the functioning of a land market (Pinckney and Kimuyu, 1994). However, as noted by Chimhowu and Woodhouse (2006, p. 364), "failure to understand the nature and extent of land markets under customary tenure regimes risks obscuring the processes through which the poor have access to land and disabling efforts to maintain or improve that access."

The question of how land market transactions influence the distribution of land remains a source of debate, and the effect may run in two opposing directions: On one hand, the land market may produce a more equitable outcome if it provides land-scarce farmers with a means to obtain or enlarge their farms (Baland et al., 2007). In the absence of severe imperfections that impede market functioning, the impersonal nature of markets can also benefit those with limited social capital. In addition, labor supervision costs can make large farms less profitable than smaller family farms, particularly in settings that are not highly mechanized. This inverse relationship between farm size and productivity implies that, where land can be readily transferred through the market, we might expect it to move from relatively land-rich to land-poor farmers, as this would equalize land-labor ratios and raise average productivity (Otsuka, 2007).

On the other hand, when land is commoditized, it can disadvantage those with less access to capital (Chimhowu and Woodhouse, 2006). Where credit and insurance markets are absent, the opportunity to sell land may create the possibility for distress sales, as asset-poor farmers are compelled to liquidate their land base in response to negative shocks. This can push households into a 'poverty trap', now without the asset base necessary to emerge from poverty (Carter and Barrett, 2006), while asset-rich farmers who are less vulnerable to such shocks can use the market to amass ever-larger landholdings (Holden et al., 2009). The land sales market can also facilitate speculative accumulation if financial markets do not function well, and, in turn, land is used as a hedge against inflation. This pattern may lead to a concentration of land in the hands of (primarily) urban people with little intention of farming the land. Once land prices absorb the value of non-agricultural uses (e.g., inflation-protection or collateral), they extend beyond the reach of poorer community members (Binswanger and Rosenzweig, 1986). The risk of extreme asset concentration is what prompts Fafchamps (2005) to pointedly argue for the state to limit or prohibit certain asset markets, including land.

The existing literature on the link between land markets and land distribution offers sometimes contradictory findings. In India, the land sales market has been found to equalize factor ratios across households, enhancing both equity and efficiency (Deininger et al., 2009). Similarly, in Vietnam, the land market (both sales and rental) is seen to transfer land from wealthier and less productive owners to more efficient smallholders (Deininger and Jin, 2008). The rental market is also used by land-constrained households in Kenya (Jin and Jayne 2013), and in Uganda, the land market is primarily used by those with little or no land inheritance to gain access to farmland (Baland et al., 2007; Ainembabazi and Angelsen, 2016). Conversely, in the 1990s, land markets in Nicaragua were found to contribute to land concentration in a setting of already intense inequality (Deininger et al., 2003), and in Rwanda, a pattern of distress sales by the poor exacerbated the inequality of land distribution (André and Platteau, 1997). In Zambia, where customary land is administered by traditional authorities and sales are generally prohibited, there exists a "clandestine" land market. Of note, many medium-scale farmers seem to have amassed their land in these markets through a process characterized by elite capture, with much of this activity in the form of speculative accumulation (Sitko and Jayne, 2014). Under certain

[1] We recognize that there remains an ongoing debate regarding the optimal farm scale for agriculture in African rural development (Hazell et al., 2010; Collier and Dercon, 2014). In focusing exclusively on the distributional effects of land markets, this paper does not seek to settle this debate.

[2] Deininger et al. (2017) focus exclusively on the rental market in Tanzania.