Communal Land and Agricultural Productivity

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Many policy makers and researchers in the field of development economics view land markets as one of the key factors underlying the extremely low agricultural productivity levels observed in most of Sub-Saharan Africa (SSA). Land markets in SSA are characterized by numerous types of land tenure regimes that vary across and even within countries. One feature, however, is recurrent: ownership of such land is typically circumscribed by customary communal rules. Individual farmers usually have exclusive user rights, but land transferability is often limited and requires the consent of the community.

The purpose of this paper is to enrich the debate on land markets and agricultural productivity by applying a macroeconomic perspective. In particular, we offer a first attempt to quantify the aggregate impact of communal land tenure arrangements that prevail in SSA. For this we use a general equilibrium two-sector selection model featuring agents heterogeneous in skills. We impose a policy that prevents communal land sales, threatens rented-out communal land by expropriation, and transfers expropriated land progressively to existing farmers. The model is then calibrated to Ethiopia, a country that formally institutionalizes the informal arrangements found elsewhere.

Are communal land regimes a major impediment to development? In the Sub-Saharan African context we find that such policies substantially dampen nominal agricultural relative to non-agricultural productivity, by about 25%. However, our analysis also suggests that communal tenure regimes decrease real relative agricultural productivity only slightly, by some 4%, because cross-sectoral terms of trade adjust strongly. Only about 2 percentage points of agricultural employment is due to the low land transferability, while the loss in GDP associated with it is small at about 2%. The main finding is that while low land transferability incentivizes individuals to work in agriculture, there are relatively few distortions of land use across farmers. As a result the equilibrium price of agricultural goods is low, which ultimately deters an oversupply of farmers and limits real aggregate consequences.
Our computations can certainly justify why communal land tenure regimes can be perceived as a binding constraint in the eyes of farmers. For example, our model predicts that at given prices 62% of farmers in an economy such as Ethiopia would leave farming if tenure were secured, casting land insecurity as a major obstacle. Yet only 9% would actually switch sectors after price adjustments are factored in. Arguably, the perception of land regimes as a major constraint does not fully internalize the price adjustments engendered by the liberalization of land transferability. Once these are taken into account the underlying real distortions on output do not appear to be of first-order importance. Our exercise serves as a reminder that ostensibly highly distortionary policies need not have substantial bite when individuals strategically adjust to them and equilibrium prices adapt.