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Author(s): Karla Hoff

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Introduction: Agricultural Taxation and Land Rights Systems

Karla Hoff

In the rural sector of developing countries, imperfections in risk and land markets and the limited number of market transactions that can give rise to tax valuation are important constraints on tax policy and economic efficiency. One of the challenges of development economics is to design policies that economize on information costs and that build on the comparative advantages of, and complementarities between, state and private actions in mitigating market failures.

These objectives frame the symposium that follows on land taxation and land policies. The symposium focuses on the following policy questions:

- How should the absence of perfect risk markets and the informational requirements of land taxation affect the design of taxes in the rural sector (issues addressed in the articles by Hoff and Skinner)?
- Under what conditions will government intervention in customary or extra-legal land rights systems increase welfare (as examined in the articles by Feder and Feeny and Migot-Adholla and others)?

I. AGRICULTURAL LAND TAXATION VERSUS OUTPUT TAXATION

In most developing countries, private institutions for spreading and pooling risks are localized and fragmented. And government attempts to provide general crop insurance have not been successful because it is so difficult to monitor farmers' care of their crops (Newbery 1989).

The imperfections in insurance institutions have significant implications for tax policy. Traditional theory would argue that lump sum land taxes are an ideal tax on efficiency grounds. The article by Hoff, however, demonstrates that if risk markets are imperfect, government should use a portfolio of taxes including low output taxes.

Karla Hoff is in the Department of Economics at the University of Maryland, College Park. The author would like to acknowledge her debt to Avishay Braverman for initiating and organizing the conference from which the articles in this symposium issue were selected.

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The intuition behind this result is straightforward. An output tax is implicitly a tax on a farmer's *average* output and an insurance policy providing for a payment from government to farmer in bad years (when output is below average) and an insurance premium from farmer to government in good years. An output tax thus imperfectly substitutes for missing risk markets. It reduces both the aggregate amount of risk in the economy through risk pooling and the aggregate cost of bearing a given risk through risk spreading. It is shown that for a sufficiently small output tax, the welfare gain from the insurance will always exceed the loss due to the distortion of the output price. This means that there is always an optimal output tax that is positive. This result generally holds even if the land tax is indexed to regional output or land is farmed under sharecropping.

Imperfect risk markets undermine another standard result in tax analysis regarding lump sum taxes (Hoff 1990). The *New Palgrave* states that "A feature of lump sum taxation is that what taxpayers bear is exactly balanced (in monetary terms) by what the fisc gains" (de V. Graaff 1987, pp. 251–52). For most people, the smaller one's wealth, the higher his or her absolute cost of bearing a given risk.¹ This means that if risk markets are incomplete, a lump sum tax program will increase the cost of risk to the taxpayers; there will be excess burden. One can easily think of examples of other cases of excess burden arising under lump sum taxes. If, for instance, small farmers are rationed in the credit market, then a lump sum tax on farmers, by reducing the scope for self-finance, will exacerbate the distortions in the credit market.

These are cautionary notes that argue, on efficiency grounds, against regressive land tax–transfer systems and against exclusive reliance on land taxation in the rural sector. They are not arguments in favor of the very low reliance on land taxation and high reliance on output and trade taxes characteristic of developing countries (Tanzi 1987). Skinner's simulations (this issue) compare welfare under a pure output tax regime and a pure land tax regime. He shows that a pure output tax regime is unlikely to Pareto-dominate a pure land tax regime except for very high income uncertainty and low tax rates (see his table 1).²

As is now increasingly emphasized, a discussion of alternative tax systems is incomplete unless it includes administrative factors (Stern 1982; Slemrod 1990; Besley 1989). Every tax has its own information requirements. Taxes on marketed output economize on information: the tax collector requires knowledge only of the farmer's marketed sales. Taxes on land, to be equitable, must be based on land quality as well as acreage. Hence land tax administration entails assessing the value of land parcels that, for many developing countries, more likely than not have been obtained outside of formal market channels. (Evidence on the low incidence of land sales in Sub-Saharan Africa is presented in Migot-

1. The simple analytics of the monetary cost of risk are summarized in Newbery (1989).
2. Skinner's simulations are based on the assumption that all output is marketed.

Adholla and others, this issue.) The monetary cost of obtaining information on land values reduces net government revenues from the land tax. Skinner notes that “courts are often swamped by appeals from irate landowners. [It has been suggested that] the administrative capability of the government is overwhelmed if 5 percent of landowners appeal their tax assessment . . . [In one, possibly extreme, case] the administrative cost of the Land Development Tax in Bangladesh during the mid-1980s was more than half the tax revenue.”

Any decision on the level of governmental outlays for land tax administration has important effects on such a tax’s progressivity. This is because errors in assessment are likely to be regressive. Farmers with high-quality land have an incentive to represent it as low-quality because it is difficult to impose large penalties for underreporting—reasonable people may differ over the “true” value of land. Skinner provides illustrative parameters under which the social cost of raising an additional dollar from land taxes exceeds the social cost of raising an additional dollar from output taxes. In optimal tax policy, as in optimal transfer policy, there is a tradeoff between two evils: deadweight losses induced by distortionary tax–transfer systems and administrative burdens and inequities induced by nondistortionary systems.

II. LAND RIGHTS SYSTEMS

The last two articles in this symposium focus on the role of government in facilitating the development of land markets and defining property rights. It has been widely assumed that government reform of customary land rights systems is needed, especially in Africa. For example, Robert Seidman, a leading scholar in law and development, wrote: “Undoubtedly, the hardest single rub in all African law lies between the norms of customary land tenure and the demands for development” (Burg 1977, p. 525). Yet evidence is fragmentary on the extent to which African customary land rights systems or, more generally, informal systems of land tenure in fact do reduce productivity. An alternative view, set forth in the article below by Migot-Adholla and others, is that Sub-Saharan customary land rights systems have successfully adapted to increases in population pressure and commercialization of agricultural outputs through a progressive privatization of communal rights. In this view, the binding constraints on African rural development are inadequate technology and limited access to goods markets—not customary land rights systems.

To understand the relation between the last two articles in this symposium, it is useful to characterize land rights systems according to two dimensions—transferability of use rights and security of those rights. These two dimensions are distinct. Tenure insecurity can arise under a regime of perfectly individualized and marketable rights—because of a conflict in land documents or inadequate enforcement of those rights, for example. In an idealized African indigenous system, use rights are perfectly secure but cannot be transferred except

through inheritance. In the idealized Western land rights system, all rights are marketable and the security of rights is high.

Transferability of Land Rights

In most areas of developing countries land use rights are individualized, but a user's freedom to transfer those rights may be limited. The source of such limitations may be norms of customary land tenure or the absence of efficient legal mechanisms for land transactions, such as titles and cadastral surveys. Migot-Adholla and others find for Sub-Saharan Africa that "the distinguishing feature of different tenure regimes . . . revolve[s] around restrictions on the individual holder's ability to transfer land (only among family members, within the lineage or community, or to outsiders; and with or without approval from other lineage or community members), which also tends to coincide with the mode of transmittal (inheritance, gifts or bequest, and sale)."

Their article uses cross-section evidence from Ghana, Rwanda, and Kenya in 1987–88 to examine whether restrictions on the transferability of land are a constraint on productivity. Their finding is that, "controlling for differences in land quality and household characteristics, our regression analysis indicates no relationship between cross-sectional variations in land rights and productivity." This suggests that indigenous institutions provide good substitutes for formal property rights and enforcement mechanisms. The data also provide evidence that Sub-Saharan land rights systems have autonomously evolved to allow greater transferability of use rights where farm production has become commercialized.

In those parts of developing countries where land markets are active, a set of parallel markets—one legal and one extralegal—often exists. Land in the extralegal sector of the economy faces impediments to transfer to the legal sector. In particular, those who have purchased land in the extralegal market are not able to pledge their land as collateral to banks. In a study of farms in illegally occupied forest reserves and on legally owned land in Thailand, the claims of squatters were found to be fairly secure, and the percentage of farmers who had obtained their land through market purchase was similar for the illegal and legal farms (Feder 1989). The main difference between the two types of farmers was that titled farmers had much greater access to institutional credit, and this appeared to be the source of the difference in the land productivity of titled and untitled farms.

Security of Land Rights

Security of land rights is a second dimension along which land rights systems may be characterized. Land rights systems reflect the combined effect of rules, the governmental order that gives them legitimacy, the administrative and judicial institutions that enforce them, and the social norms that support them. Looked at from this point of view, it is easy to see why land rights in many developing countries are insecure: "In developing countries undergoing evolution in all three categories of institutions [constitutional order, institutional

arrangements, and normative behavioral codes], there is the potential for a lack of congruence among the three types of institutions. Thus although the formal legal system may provide for alienability, the transfer of land to persons from another clan or ethnic group may represent a violation of cultural norms. Similarly, although the constitutional order may make provisions for private property rights and there may formally be laws establishing such rights, the corresponding registration and enforcement mechanisms may be largely absent” (Feder and Feeny, this issue).

The obvious cost of insecurity of land rights is that it reduces farmers’ investments in land and land’s value as collateral. Feder and Feeny highlight a further cost: insecurity of land rights distorts the price of land relative to capital. As insecurity of land rights increases, farmers will invest less in both land and capital used on land. But because the supply of agricultural land is highly inelastic, the reduction in demand for land will be offset by a reduction in its price. At the higher capital-land price ratio, the capital intensity of farming will fall. (Such effects are fully traced through in a formal model in the appendix to Feder and Feeny.)

Policy Measures

Governments have intervened extensively in land rights systems with the objective of increasing the marketability and security of land rights. Titling is one of the most common methods for this purpose. Migot-Adholla and others provide striking evidence that titling is not effective, however, if a market in land violates strong indigenous tenure systems. Kenya provides a test case for land tenure reform because it is the only Sub-Saharan African country with more than thirty years’ experience with a national land registration program. Migot-Adholla and others surveyed more than 100 land parcels in each of two traditional African farming areas in Kenya. In one area, 75 percent of the parcels were titled but only 8 percent were deemed salable by the operator. In the second area, only 14 percent were titled but 67 percent were deemed salable. Because land rights systems depend on social norms, land titles alone do not create a market. The Kenyan evidence suggests that in areas where strong indigenous land rights systems exist that preclude marketability of rights, land registration and titling programs will not be effective in shifting those systems toward the Western model.

Where, however, land markets do exist, government has an indispensable role in promoting transferability and security of land rights. Governments can do so by recognizing the reality of extralegal markets and providing efficient mechanisms for land transactions, such as registers, court systems, and regulations concerning mortgages and leases.

Imperfections in Land and Credit Markets and the Dynamics of Inequality

We noted above that where land is transferable, landownership will be valued not only for its yield, but also for the improvement in access to formal credit that it affords. The pledging of land as collateral enhances the efficiency of the credit

market. Surprisingly, it *reduces* the efficiency of the land market. Feder and Feeny derive the collateral premium on land in a formal model; Feder (1989) estimates its magnitude in Thailand. Because of the collateral premium, individuals will not be able to buy land through assumption of debt, because the yield from the land will not cover the market price. The converse result is also true: individuals who are not rationed in the credit market will not wish to buy as much land as they otherwise would. Recent work has begun to explore the implications of such distortions on the dynamics of class formation and the stability of redistributive land reforms (see Braverman and Stiglitz 1989 and Carter 1989, and, for a contrasting view, Lanjouw and Stern 1989).

III. CONCLUDING REMARKS

The articles contained in this symposium provide insights into the consequences for tax policy of risk market imperfections and of imperfect land valuation. They also advance the debate on the scope for welfare-improving government interventions in land rights systems. Governments, in general, have a comparative advantage in increasing land rights security and the efficiency of land transactions; the private sector has an indispensable role in creating the normative behavioral codes that underlie land rights systems. Finally, by formalizing land rights systems in a way that is useful in empirical work, these articles make contributions to methodology in the analysis of land rights systems.

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