Land Ownership and Reform
Lecture 25

26 November 2013
Discussed contracts within agriculture.

Showed that in absence of risk aversion, fixed rent contract achieves first–best: value of marginal product equals true marginal cost. If opportunity cost is hourly laborer paid $w$. Set MP equal to marginal cost, or $f'(L) = w$.

Showed that sharecropping is inefficient, tenant gets share of output $(1 - \alpha)f(L)$ so if opportunity cost is $w$ (work as hourly laborer) farmer sets labor such that $(1 - \alpha)f'(L) = w$. As $\alpha < 1$ under supply labor.

With risk aversion by tenant, sharecropping is a way of reducing the tenant’s risk. Tenant receives less hen harvest is good, to receive more when harvest is bad.
Landowner incentives

Well if some insurance is good, a little more is better as diminishing marginal utility of income protection of income losses yield more utility than reduction of income gains.

Thus, with risk aversion by tenant, landowner can be better off by offering insurance to tenant.

But if a little is better, why not more. That’s true especially at very low levels of income.

Implies that it is possible that tenant is so risk averse, prefers working as wage laborer (payment divorced from output), paid by unit of time not output.

Possible sharecropping does not exist. Have only tenants and landowners, but with imperfect monitoring landowner will hire supervisors to monitor effort by laborers.
Limited Liability

If tenant is poor and output is uncertain there may be states in which tenant will not be able to pay fixed rent. Tenant’s small wealth, if extremely bad harvest, doesn’t have the resources to cover the cost of the fixed rent.

This is known as limited liability — can only lose assets/savings which may be small or zero.

Problem: creates an incentive for tenant to over invest in risky methods of production. (why?)

One solution is to lower the rent in bad outcomes and raise it in good outcomes. But this is like sharecropping.

As tenant grows richer the limited liability constraints becomes less binding. So should see fixed rent contracts among the better off tenants.
Sharecropping can be a mechanism by which to screen tenants. If landowner is uncertain about true productivity of tenant, but tenant knowns own productivity.

Then sometimes possible to offer different kinds of contracts to tenants to get them to reveal their unobserved “type”.

Insight: high productivity tenants want contract in which they retain a larger share of their (high) marginal product. Low ability or productivity tenants, would prefer to divide their low marginal productivity between themselves and landlord.

May be possible by offering a menu of contracts to separate high–versus low– productivity tenants.
In this setting, may be able to set rent and shares such that high productivity tenants prefer the fixed–rent contract, whereas the low–productivity tenants prefer the sharecropping contract.

Separating the tenants in this fashion makes profit for landowner (and tenants).

Explains why we see both types of contracts (fixed rent, sharecropping) in the same market at the same time.

Limitations: high productivity tenants know that once he reveals himself, rents will be raised to squeeze extra surplus.

Competition for tenants eliminates screening — landlords can not retain surplus as it gets competed away.
Multiple Periods

Touched on briefly with discussion of screening of extending these ideas to dynamic settings: multiple periods.

Tenancy contract may or may not be renewed. When non-renewal or eviction is possible, this gives the landlord another way to provide incentives to the tenant to work hard.

Say a sharecropping contract is offered because of screening or tenant’s risk aversion. Can combat Marshall’s efficiency loss of sharecropping by threatening to evict in case of poor performance (low output).

Possible eviction changes the contract:

- compensate tenant for extra risk
- value of contract must pay the tenant as least as much as his next best opportunity.

Possible downsize: tenant has reduced incentive to maintain land quality or other long term investments.
When do we see contracts with Eviction

- *Limited Liability* When tenant is poor, loss has no bite for tenant. Threat of eviction provides incentive.

- (Nonverifiable) information regarding tenant effort. Landlord has some knowledge of tenant’s effort, but such informal information can not be used in a court of law (should one exist).

If tenant does not work hard or live up to the spirit of his responsibility – end the contract.

But this requires that the landlord pay the tenant a premium so the tenant does want the contract to end.
Landownership
A brief History

Ray provides an interesting presentation of the history of property rights.

Recall four key questions of chapter regarding enormous inequalities in land holdings:

1. Is such inequality compatible with productive efficiency, quite apart from the intrinsic ethical aberrance that we may feel.
2. If there is an efficiency lost, can it be repaired through operation of the land markets? Last time.
3. If land rental markets are not adequate to restore efficiency, would land sales from rich to poor spontaneously redress the balance?
4. If neither land rental markets nor sales markets are sufficient, what is the role of land reform.
Productivity

Do small farms have higher productivity than large farms?

Defines efficiency as when value of marginal product of factors equals their true marginal cost.
Clearly some minimum size of farm.

Some crops best suited to mechanization and cultivation with capital-intensive methods.

Expect that land exhibits constant returns to scale OR displays increasing returns to scale once capital intensive farming possible.

Sources of economies to scale?

- Draft animals; must be owned (renters have an incentive to over-work).
- Machinery: tractors, harvesters, threshers, pump sets ... represents economies of scale beyond animals.
More than technology; labor plays a major role in production.

Laborers and tenants not risk–neutral and do not have access to credit or insurance markets.

This provides an incentive to cultivate small farm by owners and labor (difficulty of monitoring effort).

Efficiency loss from contracts that insure tenant.

Yet technology gains from large farms not available to small farms simply by pooling land. Pooling creates a free–rider problem.

Hence distinct potentially offsetting forces on the productivity of small farms.
Available evidence suggests for developing countries the productivity gains arising from incentives (with imperfect markets in the background) outweigh the technological returns to scale from larger plots.
If small landowners can buy land from rich landowners, then productivity gains can be realized.

Do land markets work adequately?
Do land markets work adequately: No.
Perspective:

- Productivity is higher on smaller plots than on larger plots.
- Productivity gains cannot be realized by tenancy, because the tenancy contract itself erodes the productivity gain.
- Land sales cannot adequately substitute for land tenancy markets.

Land Reform land transfers from rich to poor, either without full compensation or with full compensation paid by government or by foreign donors (WB), but not entirely by the beneficiaries otherwise that would be a simple land sale.
In this election season, no surprise when I say that political lobbies against land reform are active and effective.

Sometimes possible to have land owners acquiesce by threats of violence or forced expropriation.

Land reform usually accompanied by social upheaval.

Intermediate step of grant use rights are insufficient, as without ownership land can not be pledged as collateral for productivity enhancing investments.

Seized land can be given out to collectives, which have their own problems (free-riding).

Can impose ceilings on landowners, but these are easily circumvented by putting land in names of relatives.