1 Property Rights and Productivity

1.1 The effect of property rights

- Encourages long-term investments on the property.
- Makes it possible to sell/mortgage the property to raise resources for investment.
- Reduces resources spent on securing claims to the property.

2 Land titling in Peru (Erica Field)

- Collapse of the rural economy and terrorism in rural Peru created a huge inflow of immigrants into Peru's cities over the last 50 years.
- In 1997 a quarter of Peru's population were in urban/peri-urban squatter settlements.
- In 1991 the Peruvian government launched a project for titling holders of informal property claims. Before this getting a title was expensive and complicated. The idea was to make it free and quick.
- There was a pilot of 200000 households between 1992 and 1994 period of training program officials and mapping the target areas.

 When the program COFOPRI finally started, the rule was that anyone who had held an informal right in an eligible area before 1995, was eligible for the program.

2.1 Expected effect of the program on labor supply

- If the titled person only worked outside the household, the fact that he spent less time protecting his right, means that he had the option of spending more time working outside. He should work more hours outside.
- If the titled person worked partly or entirely at home, there is a substitution effect which pushes for more outside work and an income effect which pushes for less total work.

- If adults are better at guarding property than children, children's outside labor may go down after the reform.
- If a family has more working-age adults, labor supply response should be weaker.
- If the family has held the title for longer, labor supply response should be weaker.

2.2 Data for labor supply project

- Survey of 2750 households distributed across 8 program cities, with cluster units of 10 households randomly surveyed sampled at the neighbourhod level.
- Includes questions about perceptions of tenure security which show a perception of improved security

2.3 Specification for labor supply project

Base specification

• $L_i = \beta_0 + \beta_1 N_i + \beta_2 N_i^2 + \beta_S . S_i + \beta_P . P_i + \beta_{SP} . S_i . P_i + \alpha X + \varepsilon_i$, where L_i is labor supply, N_i is household size, S_i is whether it was a squatter before the program started, P_i is whether it is a program area and X is some other characteritics.

ullet Caveat: P_i is mis-measured because it is just whether anyone in the cluster has a COFOPRI registration.

2.4 Effect on labor supply

- Positive effect on labor supply of 13.4 hours per week.
- Smaller effect on labor supply in households with more adult workers (upto a point), with greater tenure.
- Smaller effect on those who were issued titles later.
- Child labor participation falls, by 28% among families with 1-6 working age members.
- Work at home falls (borderline significant).

2.5 Expected effect on credit

- More secure property rights should make them better collateral, increasing the supply of credit.
- More secure property rights should raise the demand for credit, as the borrower seeks to invest more on his property.
- More labor income from the extra work may increase or decrease the demand for credit.

2.6 Data and specification

• Uses the same data as before

Estimates

 $y_i = \beta_0 + \beta_1.Title + \beta_2.Title.Lenderrequirestitle + \alpha X_i - \beta_0$

where y_i is either probability of a loan approval or the size of the loan or the interest rate on the loan, Title is the fact of having a title, and Lenderrequirestitle is a dummy which says whether the lender required a title for giving a loan and X_i is a vector of other characteristics.

- The basic idea is that if it is something that affected demand, then it should affect the loan outcome whether or not the lender requires a title.
 If it only affects loans from those lenders who require a title then it is a collateral effect?
- X_i is in part to deal with identofication issues, but it includes total income to further control for demand effects.

2.7 Results on access to capital

- Loan approval rate from the government (Material) bank goes up by 4.6 percentage points.
- All of it comes from situations where the lender asked for a title.
- Neither the amounts nor the interest rates change.
- Loan approval rate from private banks do not change and nor does the loan amount.
- The interest rate goes down by about 9 percentage points, but not especially for those cases where the lender asked for the title.
- All of the increase in loans comes from construction loans. No evidence of increased access to production loans.

3 Land rights and investment on the land (Goldstein-Udry)

- All over West Africa land is subject to multiple overlapping claims.
- This study is from Ghana.
- Land does not clearly belong to the cultivator: it is held by the cultivator but ultimately belongs to the village or the lineage.
- When land is being cultivated no one takes it away.
- When you leave it as fallow to regain productivity, then it becomes a potential target for redistribution to a different member of the lineage/village.

- If you plant trees it cements your claim.
- The strength of the claim depends on the claimants political power.

3.1 Data

- Data from a two year survey from the Akwapim region of Ghana.
- 240 households in 4 clusters (chosen to be representative) were interviewed 15 times during the 2 years.
- Detailed cropping, fallowing, household data

3.2 Results

- Enormous differences in profits and yields across husbands and wife's plots within the same household— 100 percent higher yields and 200% higher profits for husbands.
- This is after inherent land quality has been controlled for using various standard measures. (table 2)
- It does not shrink when we include neighbourhood fixed effects, where neighbourhoods are defined to be a distance of 250 metres. (Table 3)
- The effect drops to a quarter and becomes insignificant, when we include the duration of the last completed fallow.

- However fallowing is endogenous.
- The authors instrument fallowing with family background characteristics of the cultivator. The key instrument is whether the person holds traditional lineage/village office. (Table 4).
- The worry is that this is picking up something else, say the wealth of the cultivator.
- No wealth effect using occupational backgrounds of parents as instruments for wealth.
- Therefore they conclude that the causality runs from political power to security of land holding to fallowing to fertility.