

Political economy
Lecture 3
Property rights

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February-June 2010

Outline

- We continue on specific institutions and their impact on economic behaviour
- Today: property rights from micro perspective
- Lecture based on:
 - Besley (1995)
 - Udry (1996)
 - Besley & Ghatak (2009)

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What are property rights?

- Have something at your disposal
 - Right to use (you can drive your car)
 - Right to change (you can tune up the engine, paint it...)
 - Right to derive benefits (you can use it to generate income)
 - Right to transfer (you can sell it/rent it)
- Value of the thing depends on what we can do with it
 - E.g. agricultural/non-agricultural land
- In reality, property rights are always limited

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Property rights – simple model (1)

- Simple model:
 - Individual commits effort (e), where $e \in [0,1]$, $\bar{e} \leq 1$
 - to produce A with prob. \sqrt{e} & 0 with prob. $1 - \sqrt{e}$
 - Expected output; $y = A\sqrt{e}$
 - Risk neutral, utility $U(c, l) = c + l$
 - Risk of expropriation τ , $\tau \in [0,1]$
 - Expected consumption: $c = (1 - \tau)A\sqrt{e}$

Property rights – simple model (2)

- Model cont.
 - Producer maximises: $(1 - \tau)A\sqrt{e} + \bar{e} - e$
 - F.O.C. $\frac{(1 - \tau)A}{2\sqrt{e}} = 1 \Rightarrow e^* = \left[\frac{(1 - \tau)A}{2} \right]^2$
 - then output: $y(\tau) = \frac{(1 - \tau)A^2}{2}$
 - and profits: $\pi(\tau) = \left[\frac{(1 - \tau)A}{2} \right]^2 + \bar{e}$
 - If $e^* = \bar{e}$ then τ affects only distributional aspects (profits) and doesn't labour or output

Property rights – cont.

- Mechanisms through which PR affect economic activity (some intuition behind the model):
 - Determine expropriation risk
 - Determine costs of defending property
 - Determine gains from trade
 - Support other transactions

Land rights in Ghana

- Property held informally
 - Land rights granted by tribal authority
- An attempt to identify causal effect of changes in property rights in investment/productivity
- Obvious step
 - Run some kind of regress.: $y_{it} = \beta_0 + \beta_1 z_{it} + \beta_2 x_{it} + \varepsilon_{it}$
 - Where y – outcome measure; z-property rights measure; x – controls; ε – an error term
- Problem: omitted variables; reverse causality

Land rights in Ghana (2)

- Potential solution: find an instrument
 - Correlated with „Z” but otherwise not affecting our outcome measure „Y”
 - Not that easy to find it
- Besley
 - exploits the fact that hh in Ghana enjoy different rights on different plots
 - Looks how economic decisions vary among plots

Land rights in Ghana (3)

- Controlling for hh fixed effects, property rights increase investment (planting trees)
- Investment decisions affect security of property rights as well
 - Instruments used:
 - Soil quality
 - Distance from house
- Goldstein & Udry (2008) study for Ghana
 - Political power affects property rights => productivity

Fertilizers in Burkina Faso – Udry (1996)

- Within a household: yields on plots controlled by women are 20% smaller than on men's plots
 - After controlling for var. measures of the productivity of the plot (soil quality, slope etc.)
- Not due to different production functions
- Instead, due to different input intensities
 - Labour & fertilizers
 - Much less male labour and fertilizers used on women's plot

Fertilizers in Burkina Faso (2)

- Estimates: 6% of increase in production by simply reallocating inputs within the household
- Why don't we observe reallocation?
- Explanation: Women's plot underinvested due to:
 - Fear of expropriation by husband if men provides too much labour and inputs (men have better access to fertilizers, women cannot borrow – credit market imperfections)
 - Fear of being fully taxed by family members if the investment brings fruit (lack of insurance)

Fences in USA – Hornbeck (2008)

- Late 19th century
- Farmers were required to build fences to secure their land
- Introduction of barbed wire decreased the costs of fencing
 - Relative to wood fences
- Counties with little woodland experienced significant agric. development
 - Reflecting increased security of PR due to barbed wire fencing

Next lecture

- Institutions & economic growth
- Read: Acemoglu et al. (2001)

• **Thank you for your attention**