Does it matter how much your neighbor owns? Looking at the functioning of land markets in Poland from the social comparisons’ perspective

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Looking at the functioning of land markets in Poland from the social comparisons’ perspective

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Outline

• Research question & motivation
• Data
• Results

• All comments welcome
Research question

• Various determinants of land market participation have been studied
  – In general: productivity- & life-cycle-related factors
  – More specifically: efficiency, retirement,
  – Plus: adverse shocks (flood, war, ...)
  – In addition: investment portfolio, speculative acquisition...
  – The role of various market imperfections (credit, labour, insurance)

• Our focus different:
• How does land distribution affect land market operations?
  – What is the relationship between relative land endowments and propensity to increase a farm?
Motivation

• Social comparisons neglected when studying land markets
  – Exception: Van Landeghem et al. (2013);
  – To lesser extent but still related: Breustadt & Habermann (2011)

• This is in contrast to a general evidence (Becker, Clark, Oswald, ...)

• and in contrast to some studies related to agricultural and rural issues (Egoz et al., 2001; Burton, 2004; Kuehne, 2013)
Why ‘social comparison’ w.r.t. land?

- Land important source of income
- Land important for social status in rural areas
- Sometimes also for influence/political power
  - Historically: aristocracy=landowners
  - Also now: esp. at local level local elites are farmers
  - Note that land inequality have been identified as important for human capital creation and economic growth – Galor et al., 2008; Deininger & Squire 1998; Engerman & Sokoloff... + extensive political economy literature
What relationship can we expect?

• Based on the theory which incorporates peer effects:
  – more purchases by those with relatively less land can be expected
  – however, for really small farms social comparisons are likely to be replaced by concerns for mere survival
  – =>the effect may be non-linear (inverted U-shape).

• The role of non-economic values of land may decrease over time
  – social relations in rural areas have been a subject of a thorough reorganisation related to modernisation and globalisation processes (Bryant, 1999; Johnsen, 2004)
Relative deprivation

• Relative deprivation:
  – \( RD(w) = [1-F(w)]E(x-w|x>w) \)
  – Concept popular in ‘literature on migration’

• \( u_i(x_i,X) = \alpha_i x_i - (1-\alpha_i)RD(x_i,X) \)

• Assuming that farmers cannot change the group with which comparison is made, discontent that arises from having less land than others could induce activity on land markets
Two hypotheses tested

• H1: propensity to purchase land will be greater, for those who have higher relative deprivation (less land endoments than others)

• H2: the role of social comparisons should decrease over time
The role of land in Poland (XX\textsuperscript{th} c.)

• Why such a long term perspective?
  – Informal institutions evolve only slowly

• Before the WWII
  – for landowners the source of social position
  – for subsistence farmers the source of autonomy and identity

• Under communism:
  – private ownership as a political manifestation
Data

• Farm survey
• Three waves covering transition period
  – In each wave some retrospective information on (t-4)
• Around 3.8 thousands obs. per wave

• Not too many vars but information on land markets transactions
  – Although the quality of the data varies between years
Data (2)

• 74 villages – all farmers from the village approached
  – Important for analysing social comparisons
    • We are likely to use the relevant reference group (Fafchamps & Schilpi, 2008)
  
• We cover an important part of the transition
  – capture the time land markets started to operate
  – are able to see whether the impact of social comparisons changed over time
Empirical strategy

• Dependent variable: dummy for those purchasing land between $t_0$ and $t_{0+4}$
• Main explanatory variable of interest: $RD$ in $t_0$
• Other controls: $land$, $labour$, $credit$, $age$, $edu.$
• Baseline results: logit
• Robustness tests: OLS & instrumental vars
• Instrument: GINI coefficient at the village level in $t_0$
Results: descriptive stats.

Average relative deprivation in $t_0$ by the change in total land holdings in $(t_0; t_0 + 4)$

<table>
<thead>
<tr>
<th>$t_0$</th>
<th>Decreased</th>
<th>No change</th>
<th>Increased</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>1.79</td>
<td>2.18</td>
<td>3.56</td>
</tr>
<tr>
<td>1992</td>
<td>2.03</td>
<td>2.48</td>
<td>2.93</td>
</tr>
<tr>
<td>1996</td>
<td>2.58</td>
<td>2.75</td>
<td>2.81</td>
</tr>
</tbody>
</table>

Descriptive stats consistent with expectations:
• Average RD is the highest for those that increased their farm; and the lowest for those that supply land
Results: regressions

• Consistent results from all three methods:

• There is a positive impact of RD on propensity to purchase land for all sub-periods and it dies down with time

• Logit & OLS:
  • for the 1988-1992 the effect is non-linear and takes the form of an inverted U-shape function
  • For 1992-1996 and 1996-2000 the effect is linear
Thank you for your attention