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Farmers' preferences for land market regulation: Should local farmers be protected against competition by outsiders?

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Summary

Given claims for protection of local farmers in the competition on markets for agricultural land purchase against bidders from outside agriculture and other regions regulatory measures against outsiders are being proposed and hotly debated. This research examines preferences and motivations of an important stakeholder group – farmers - with regard to potential land market regulatory policies. Based on survey data of 700 farmers model estimations show that farmers recommend regulation particular against non-agricultural agents but that they are less pronounced if situations are addressed in which they themselves are sellers of land.

1 Research questions

Farmland sales in Germany are subject to approval by agricultural administration based on national and federal-state laws that aim to facilitate a sustainable agricultural and rural development.

These laws are presently under review and one focus of the discussion considers the appropriateness and justification of restricting farm land sales to non-local agricultural enterprises (from the same or other regions or countries), and to (local or non-local) non-agricultural buyers (“investors”). The issue is intensively discussed in the public and among researchers (e.g. Croonenbroeck, Odening, & Hüttel, 2019; Heinrich, Appel, & Balmann, 2019; Odening & Hüttel, 2018). Proponents of such restrictions regard land sales to local farmers as beneficial for societal goals (rural economic development, employment, environment and landscape quality) and see they see a need to protect local farmers from financially more powerful competitors on the land market. This research contributes to gaining clarity on preferences and motivations of an important stakeholder group – farmers - with regard to land market regulation by addressing the following research questions:

- What are German farmers’ preferences for regulation of agricultural land sales to outsiders?
- How are these preferences related to specific constellations considering the land sale intentions of outsiders?

2 Data and methods

In the context of a research project on agricultural land market policies (Forland...) farmers reported in a survey (Jauernig, 2020) on their preferences for constraints on land purchases (relative to local farmers) to be imposed on outsiders in terms of profession, their home location, or both. A request to participate in the online survey and a link to the survey implemented on the SoSci survey web portal (SoSci Survey GmbH) were sent out via email to over 1000 farmers by the organizers of the survey. The list of farmers approached was compiled drawing on data provided by farmer associations and colleagues in research. For the analysis presented here we use responses of 674 farmers.

Survey participants had to make choices on preferred regulatory strictness for a number of scenarios which were distinct regarding two aspects. The first aspect specified one of three types of outsiders wanting to purchase land: *non-local farmer*, *local non-farmer* (henceforth: *local “investor”*), and *non-local investor*. The second aspect specified one of two roles the survey participants’ could take: either to be the *seller* of the land or an *observer* of a land sale by the local municipality. Respondents were randomly assigned to the scenarios and made their choice among four categories representing increasing regulatory constraints:

- 1) unconditional approval of land purchase by outsiders,
- 2) approval conditional on locally usual sales price level,
- 3) approval conditional on paying a top-up on the local price level, and
- 4) strict denial.

(Most respondents made their choice for two of the six scenarios.) Contingency Table 1 shows the structure of the data collected.

Scenario		Regulation intensity				All N in scenario
		Uncond. approval	Appr. at local price level	Appr at loc price + TopUp	Denial	
		Share in scenario [%]	Share in scenario [%]	Share in scenario [%]	Share in scenario [%]	
Role	Buyer					
Observer	Non-local farmer	32.9	24.8	19.9	22.4	161
	Local investor	14.9	12.0	18.9	54.3	175
	Non local investor	12.4	6.5	14.2	66.9	323
Seller	Non-local farmer	47.2	19.3	19.9	13.7	161
	Local investor	32.8	9.6	17.5	40.1	177
	Non local investor	28.8	6.1	14.8	50.3	330
All		26.2	11.3	16.8	45.7	1327

Table 1: Frequency per choice option [%] and number of observations per scenario

Multinomial logit models (for the ordinally scaled choice variable) are used to estimate the impact of the respondent's role and of the type of prospective outsider on respondents' choice of regulation intensity class.

3 Main results

Inspection of choice frequencies in the bottom line of Table 1 reveals that the two extreme positions are the most frequently chosen. Nearly half of the respondents (45.7 %) chose *strict denial* meaning they want local farmers to be maximally protected against outsider competition when bidding for land. A quarter of the respondents (26.2 %) chose the opposite option, *unconditional approval*, which implies no protection of local farmers.

The choice frequencies (in percent) for the regulation intensity options differ for each scenario (~each line in the table) from the overall average which represents *expected frequencies* (bottom line). The sign and size of the difference between observed and expected frequencies indicate particularities with regard to the respective scenario. E.g. the share of 22.4 % for Denial of land sale to a non-local farmer (with respondent being observer) is only half of the average for this option of 45.7 %: Very few respondents think that professional colleagues should be excluded just because they are non-locals.

Among respondents regarding themselves as the seller of the land that share is still very much lower: 13.7 %. A result to be expected for *homines oeconomici* who tend to dislike being prevented from selling to an outsider who potentially pays more than local farmers.

Substantial differences of choice frequencies for particular scenarios in terms of role and buyer from the average show that choices depend on role and buyer. An illustration of this refutation of the independence assumption is provided by the mosaic plot in Figure 1.

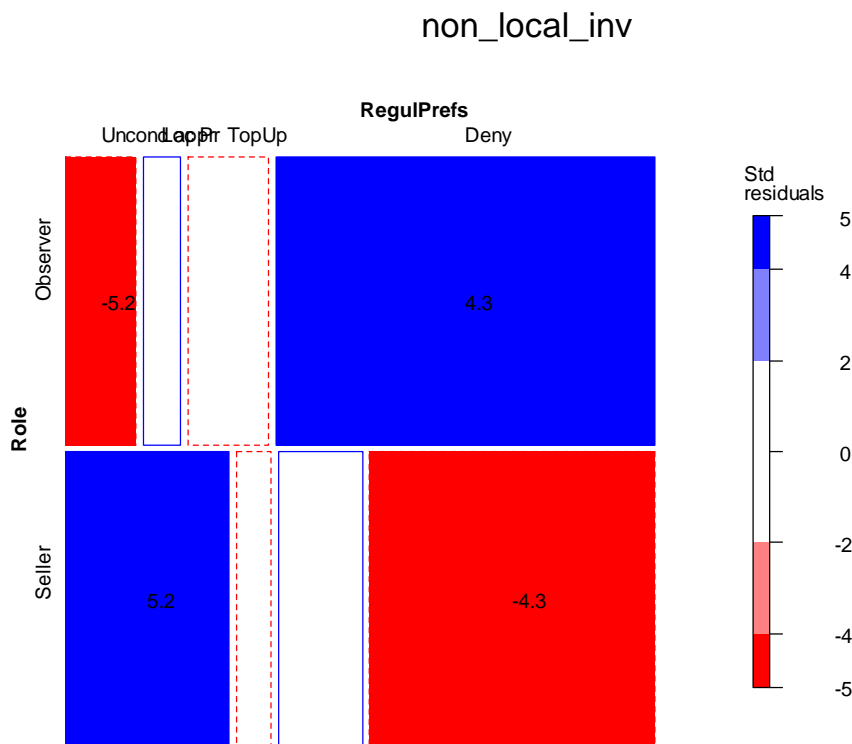


Figure 1: Impact of respondent's role on preferences for land sales to non-local investors

The area of the rectangles represent the proportions of preferred regulations against non-local investors. The relevance of the empirical differences in proportions between the upper half ("Observer") and the lower one ("Seller") is inferentially underpinned by standardized residuals (Agresti, 2018, p. 39) and the colourings indicating statistically significant divergences from the independence hypothesis. The large dark blue top-right rectangle indicates that denial of land market access to non-local investors is strongly overrepresented among "observers" and the large red bottom-right rectangle indicates under-representation of this preference among "sellers".

The results which are less pronounced with regard to land sales to non-local farmers and to local investors are further examined with a cumulative multinomial logit model that provides numerical estimates of the impacts of the scenario characteristics *buyer* and *role* on the respondents choices.

These impacts can be expressed by how much more are respondents favour lesser regulation for one characteristic than for another. The inclinations towards lesser regulation in comparison between roles and buyer types (derived from the parameter estimates analogously) are summarized in Table 3. E.g. the factor 1.98 in the first row indicates that the

inclination for lesser regulation is almost twice as strong if respondents see themselves in the seller position (column 1) compared to the observer position (column two).

Scenario	As compared to...	Rel. inclination towards lesser regulation
Role= seller	observer	1.98
Buyer=local investor	non-local investor	1.51
Buyer=non-local farmer	non-local investor	4.27
Buyer=non-local farmer	local investor	2.82

Table 2: Impact of role and buyer on preferences for lesser regulation (derived from cumulative multinomial logit model estimation)

The highest factor is 4.27 meaning that the inclination towards lower restrictions against the outsider is more than four times stronger if a non-local farmer is the outsider than if it is a non-local investor. We conclude from the factors that the profession of the outsider is considered more relevant than where he or she is based: being non-local is regarded less problematic than being non-farmer.

Main conclusions are that farmers feel a need for regulation particularly if non-local non-agricultural investors appear as competitors on the land market but that need is seen lower if they see themselves as sellers of the land benefitting from potentially higher prices paid.

4 References

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