

Title: Land Values and Terms of Lease: A Case Study for Saxony-Anhalt

Background & Objective:

Well known price determinants for farmland values are expected farmland productivity measures such as soil quality and weather conditions that determine the expected return from using the land. Other determinants refer to the market structure such as local supply and demand conditions (cf. Xu et al. 1993 or Nickerson and Zhang 2014). Less clear is the relation of the land price paid per hectare and the ending date of a term of lease if the tenant does not become the new owner. While in real estate economics this has been an issue for a long time (e.g., Stanton and Wallace 2008), for farmland markets, thus far no empirical evidence exists. Many authors, however, conclude that the relevant term at the date of selling is relevant and may considerably affect prices. While it seems to be a clear negative relation in case a farmer buys the land for own agricultural usage, the effect might even be positive in case a person buys with the intention to rent out the land simply because no transaction costs for finding reliable tenants come into play. Against this backdrop, this topic is of considerable interest to get a better understanding of land market transactions and how issues other than productivity determine farmland prices.

The objective of this seminar topic is to prepare a Master's thesis with the objective to empirically analyse this relationship for Saxony-Anhalt in eastern Germany. In this region land prices have increased in the last decade, as in other post-transition regions. Hence, it will be necessary to acknowledge local peculiarities of the markets such as the privatization of land by the agencies (Bodenverwertungs- und Verwaltungs GmbH, Landgesellschaft Sachsen-Anhalt) and their potential local market dominance as well.

Approach:

- Literature review: farmland market and price determinants; farmland value and term of lease; economies of scale and farmland values; hedonic price function
- Data selection from the full sample
- Descriptive data analysis: correlations, visualization (graphs, maps)
- Presentation of the modelling approach

Contact and supervision:

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Note, the farmland market data will only be available at the chair. Data work must be done at the chair and German language skills are required.

Background Literature:

References Farmland Market Sachsen-Anhalt

Hüttel, S., Odening, M., Kataria, K. and Balmann, A. (2013). Price Formation on Land Market Auctions in East Germany – An Empirical Analysis. *German Journal of Agricultural Economics* 62(2): 99–115.

Hüttel, S., Wildermann, L. and Croonenbroeck, C. (2016). How Do Institutional Market Play-ers Matter in Farmland Pricing? *Land Use Policy* 59: 154–167.

Grundstücksmarktbericht Sachsen-Anhalt, diverse Jahrgänge (available at the chair)

References from Real Estate Economics ideas potentially transferable to Farmland Markets

Stanton, R., Wallace, N. (2008): An Empirical Test of a Contingent Claims Lease Valuation Model. In: *Journal of Real Estate Research* 31: 1-26.

Overview, excellent reference as a starting point

Nickerson, C.J., Zhang, W., 2014. Modeling the Determinants of Farmland Values in the United States. In: Duke, J.M., Wu, J. (Eds.), *The Oxford Handbook of Land Economics*, New York, pp. 111–138.

Xu, F., Mittelhammer, R., Barkley, P. (1993): Measuring the Contributions of Site Characteristics to the Value of Agricultural Land. In: *Land Economics* 69 (4): 356–359.