

Proposal for the 114th EAAE Seminar

1. Title

Structural Change in Agriculture: Modeling Policy Impacts and Farm Strategies

2. Date and location

April 15 - 16, 2010

The seminar will take place at the University Campus of the Humboldt-University Berlin. The campus is located in the center of Berlin.

Berlin is one of the most dynamic and cosmopolitan cities of Europe. It is a place of dense history, offering a wide range of opportunities for business, culture, science and tourism. In 2010, Humboldt-University celebrates her bicentenary and will carry out an abundance of festivities, which will further increase the attractiveness of visiting Berlin.

3. Theme

The seminar intends to take a fresh look at structural changes of agricultural sectors in developed economies. Structural change is understood in a broad sense. It goes far beyond the change of the number and size of farms and encompasses, for example, changes of production type and structures, technological and institutional changes as well as the dynamics of transactions within food chains with relevance for the structure of the farms. The objective of this seminar is to gain a deeper understanding of the adjustment processes that take place in agriculture. This requires an identification of causalities between exogenous factors, political intervention and farmers' decision making. Such knowledge is an essential precondition to predict and to govern structural change in terms of economic, environmental, and social objectives. The focus of the seminar is on theoretical models and quantitative methods supporting the analysis of structural change.

4. Background

This seminar takes up some basic ideas and topics of the successful and stimulating 96th EAAE Seminar on "Causes and Impacts of Agricultural Structures" held 2006 in Taenikon Switzerland. It is well known that agricultural sectors in developed countries undergo a far-reaching structural change which is driven by technological change, globalization, new societal demands, and a paradigm shift in agricultural policy. Though structural change is a traditional topic in agricultural economics and a vast literature already exists, it seems promising to reconsider this problem for several reasons. From a methodological viewpoint, many challenges remain. The lack of a comprehensive theory of structural change, a behavioral foundation of farmers' decision making, aggregation and endogeneity issues in farm and sector models, or the proper extraction of policy impacts in econometric analyses are only a few of the unsolved problems. However, the development of sophisticated tools for analyzing structural change is not an end in itself, but contributes to the discussion of current problems in agricultural economics. Among them are the conflicts between food and energy production, increasing price volatility on agricultural product and input markets, regional concentration of livestock production, and the unequal market power in value chains.

5. Objectives

The seminar intends to discuss and to analyze the state-of-the art in research methods for economic analysis of structural change in agriculture. The seminar offers a platform to exchange ideas and to generate an integrated view of structural adjustments in agriculture. As current topics of agricultural policy shall be addressed, the seminar is not only relevant for a scientific community but also for decision makers in politics and administration.

6. Topics

The seminar will be based on oral presentations in plenary sessions by invited speakers and in parallel workgroups. Without prejudging the organization of the sessions, expected topics to be covered by the papers include the following items:

- *Theoretical Concepts for the Analysis of Structural Change in Agriculture*

Existing agricultural structures are characterized by a high degree of persistence - sometimes labeled as inertia, hysteresis or path dependence. Traditional explanations for this phenomenon emphasize the role of adjustment cost, mobility restrictions of production factors, financial constraints or sociological factors. Currently, the real options theory has been used as an alternative approach for explaining economic hysteresis. Real options models combine sunk costs, uncertainty, and managerial flexibility in a dynamic model of decision making.

- *Structural Change in Farm Level Models*

Existing farm level models capture structural change only in a limited way, frequently intertemporal interdependencies (e.g. investment decisions), risk (e.g. financial planning) and strategic interactions (such as those on land markets). In order to quantify structural change and to derive policy recommendations, it is necessary to have a fundamental understanding of farm-level structural change. Recent advancements (e.g. multi-agent models) allow for a microeconomic perspective in which an economic system is interpreted from the “bottom up” and structural change to be an exogenous result of individual actions and interactions.

- *Structural Change in Partial and General Equilibrium Models*

The majority of existing partial and general equilibrium simulation models covering the agricultural sector in some detail is comparative static and captures the dynamics of structural change only in a very limited way. Important factors such as investments and farm exits are often not taken into consideration explicitly. Simulation models provide an important contribution to the analysis of policy impacts on expected prices, land use and farm income. For a better understanding of the links between policy changes and the structure of the agricultural sector, however, models need to be improved from a theoretical and methodological standpoint in order to capture structural dynamics - for instance, through the incorporation of tools dealing with farm exits and investments in a dynamic way.

- *(Micro)Econometric Analysis of Structural Change*

Besides ex-ante policy impact analyses empirical foundation of (micro)economic causal relations is essential for the understanding of adjustment processes in agriculture. Important aspects include, for example, investment behavior of farmers, entry and exit decisions, farm growth and specialization. Advances in econometric methods and the use of statistical data on a low aggregation level allow for disentangling the complex relations between variables indicating structural adjustments and the economic drivers behind these processes.

- *Behavioral Models on Entrepreneurial Decision Making.*

Economic decisions of entrepreneurs are rarely the outcome of pure rational behavior as presumed by most normative optimization models. Rather, real world decisions are met under bounded rationality. As a result, optimization models frequently fail to predict actual decisions of farmers, particularly in complex decision problems. In light of this, behavioral models, descriptive game theory, and experimental economics are becoming increasingly popular for the analysis and understanding of farmers' decisions and their influence on structural change.

- *Economic Performance and Efficiency of Different Farm Structures*

The relationship between farm size, growth and economic performance has been discussed controversially over a long time. Anyhow, the existence and persistence of differences in efficiency among farms is a key factor in understanding structural change in agriculture. Solid empirical work is still necessary for explaining this observed heterogeneity in efficiency.

- *Impacts of Policy on Farm Structures*

A substantial literature based on various methods analyzes the effect of agricultural policies on aggregate variables such as prices and land use at the sector level. Research on the impact of policies on farm structures is less developed, mainly because of the methodological challenges involved. Furthermore, the analysis of the impact of a wide set of heterogeneous policies under the heading of the Second Pillar of the CAP is a new challenge which needs to be addressed. Finally, the importance of policies which are not predominantly "agricultural" - namely renewable energy policies - is increasing rapidly. New methodological developments such as the integration of simulation models at different aggregation stages and panel data econometrics provide increasing opportunities to address these questions.

- *The Role of Factor Markets for Structural Change*

Land as production factor constitutes a key factor in determining the relative competitiveness of farms. With the introduction of direct payments the functioning and efficiency of land markets have come on the agenda of the policy debate. Developments on land markets are expected to have important influence on the adjustment capacity and the entry into and exit from the sector.

- *The Impact of Technical Change*

Technical change is an important driving force for the evolution of farm structure. Technological and organizational innovations affect the profitability of farms. In general, however, they are not neutral with respect to farm sizes and farm types. Thus a clear understanding of the diffusion process of innovations and the adoption decisions of farmers is a crucial issue in this context.

- *Agricultural Production of Renewable Energy*

The rise of prices for fossil energy and the promotion of renewable energies have induced a considerable increase in the energetic use of biomass in the recent past, which, in turn, led to an increase of food prices. By now, many farmers consider energy production as an important income source. However, the long-lasting effects on production structure, income distribution and farm structure are not well explored yet.

7. Call for papers

The seminar invites an international scientific audience in the fields of agricultural economics, agricultural policy, farm management and any other field referring to the subject.

In order to organize the seminar in the best possible manner, participants who intend to contribute a paper are requested to e-mail an abstract of maximal 2 pages (about 500 words) in English by November 15, 2009, to reinhold.wilhelm@agr.ar.hu-berlin.de. The abstract should indicate: 1) the question addressed, 2) the concepts and theories to which one refers, 3) the methodology used, and 4) the results obtained.

Authors of accepted abstracts will be notified by December 31, 2009. The deadline for the final submission of accepted papers is March 1, 2010. All accepted papers will be published on a CD-ROM and fed in the *AgEcon* Research database. A selection of contributed papers will be published in a volume of conference proceedings after editing and streamlining.

8. Language

The official language of the seminar will be English.

9. Organization

The seminar will be organized by the Department of Agricultural Economics at Humboldt-University Berlin and the DFG Research Unit “Structural Change in Agriculture”.

International Program Committee

- Alfons Balmann, Leibniz-Institute of Agricultural Development in Central and Eastern Europe (IAMO), Germany
- Martina Brockmeier, Johann Heinrich von Thünen-Institute (VTI), Germany
- Cornelis Gardebroek, Wageningen University, The Netherlands
- Harald Grethe, University of Hohenheim, Germany
- Hervé Guyomard, French National Institute of Agricultural Research (INRA), France
- Guido van Huylenbroeck, Ghent University, Belgium
- Stefan Mann, Agroscope Reckenholz-Tänikon Research Station (ART), Switzerland
- Alan Matthews, Trinity College Dublin, Ireland
- Martin Odening, Humboldt-University Berlin, Germany
- Kyösti Pietola, Agrifood Research (MTT), Finland
- Frank van Tongeren, Organisation for Economic Cooperation and Development (OECD), France
- Patrick Westhoff, Food and Agricultural Policy Research Institute (FAPRI), USA

Local Organizing Committee

- Martin Odening, Humboldt-University Berlin (chair)
- Harald Grethe, University of Hohenheim
- Silke Huettel, Humboldt-University Berlin
- Reinhold Wilhelm, Humboldt-University Berlin (secretary)

Due to organizational and technical constraints the number of participants is limited to about 80 persons. Parallel sessions will be possible. The 2-day seminar will last from the morning of Thursday, April 15, until the afternoon of Friday April 16, 2010. The evening of the first day is devoted to an official dinner.

10. Registration

Participants are kindly asked to pre-register by February 1, 2010.

Pre-registration and registration will be available through the seminar website at:
www.eaae114.hu-berlin.de.

11. Participation fees

Participants of an EAAE-Seminar have to be member of the EAAE. Registration will be possible until the seminar starts, but reduced rate subscription is offered until February 1, 2010.

	EAAE-Members	Non-EAAE-Members
before February 1	250 Euro	295 Euro
after February 1	295 Euro	335 Euro

Fees include lunches on both seminar days, dinner on the first day, coffee during the breaks and a CD-ROM of the conference contributions. Accommodation is not included. The participation fees for the Non-EAAE-members include the EAAE membership fee (45 Euro) for the period up to August 2011.

12. Important dates

Abstract Submission: November 15, 2009

Author Notification: December 31, 2009

Deadline Full Papers: March 1, 2010

13. Contact person for the EAAE

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14. Objectives of the EAAE

In view of the increasing demand for food and renewable energy, globalization, as well as new societal demands the agricultural sector in developed countries will undergo considerable adjustments. Thus analyzing and understanding structural change is still an important matter for agricultural economists.

The seminar brings agricultural economists from European countries into an intense dialogue with colleagues from all over the world and to exchange theoretical and practical experiences on modeling structural change in agriculture across different disciplines. All aspects are in direct accordance with the main objectives of the EAAE.