Non-Agricultural and Supra-Regional Investors on the German Agricultural Land Market: An Empirical Analysis of their Significance and Impacts

Nichtlandwirtschaftliche und überregional aktive Investoren auf dem landwirtschaftlichen Bodenmarkt in Deutschland: empirische Untersuchung ihrer Relevanz und Wirkungen

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Abstract

Investments in agricultural land have recently gained particular public attention both in the international and national context. In Germany, the recent increase in sale and rental prices for agricultural land has often been linked to the activities of non-agricultural investors. The aim of this study is to take stock of these activities and to explore the relevance of nonagricultural and supra-regional investors. Further, it is aimed at investigating the impact of such activities on the land market, agricultural structures and regional development. Four regional case studies are carried out, three of them in the New Länder (former GDR). In each case study region, structured interviews were conducted with about ten farm managers and ten regional experts. Results show that the group of 'non-agricultural investors' is very heterogeneous and cannot be delimited by clear indicators. Thus, the core question about the relevance of their activities can only be answered with respect to the type of investor. Judgements as regards their impact are highly dependent on the selection of regional case studies, the type of interviewees and their respective interests.

Key Words

land market; non-agricultural investors; privatisation; Germany

Zusammenfassung

Investitionen in landwirtschaftliche Flächen sind in den letzten Jahren sowohl international als auch in Deutschland vermehrt in der öffentlichen Diskussion. Dabei wurde der jüngst zu verzeichnende Anstieg von Kauf- und Pachtpreisen in Deutschland vielfach mit Aktivitäten nichtlandwirtschaftlicher Investoren in Zusammenhang gebracht. Ziel dieser Studie ist eine Bestandsaufnahme solcher Aktivitäten. Untersucht werden die Relevanz und die Wirkungen der Aktivitäten nichtlandwirtschaftlicher und überregional aktiver Investoren auf den Bodenmarkt, die Agrarstruktur und die regionale Entwicklung. Im Mittelpunkt der Studie stehen vier regionale Fallstudien, davon drei in den neuen Bundesländern. In jeder Fallregion wurden strukturierte Interviews mit rund zehn Landwirten und zehn regionalen Experten geführt. Im Ergebnis zeigt sich die Gruppe der "nichtlandwirtschaftlichen Investoren" als sehr heterogen und nicht klar abgrenzbar. Die Kernfrage nach der Relevanz dieser Investoren lässt sich daher nur in Abhängigkeit davon beantworten, welche Art von Investoren gemeint ist. Die Bewertung der Wirkungen fällt je nach Fallstudie und Interviewpartner bzw. dessen Interessen sehr unterschiedlich aus.

Schlüsselwörter

Bodenmarkt; nichtlandwirtschaftliche Investoren; Privatisierung; Deutschland

1 Introduction

Land is an essential production factor for farms. It is special because of its inelasticity of supply, being fixed (as a whole) in quantity; its almost indestructible nature and its immobility. In Germany, both the sale and rental prices for agricultural land have increased considerably in the last five years, especially in the New *Länder*¹. In public discussion, this has often been

¹ The term 'New *Länder*' in this article refers to the East German federal states, the area of which formed the German Democratic Republic before the German reunification on 3 October 1990. Accordingly, the West German federal states belonging to the Federal Republic of Germany before 3 October 1990 are called 'Old *Länder*'.

linked to the activities of non-agricultural or supraregional investors (REIM, 2010).

There are numerous reports worldwide about the large-scale land purchases or 'land grabbing' undertaken by private companies, investment firms, or (semi-)state agencies in foreign, often economically weak, regions (FRITZ, 2010; WORLD BANK, 2010). However, while a number of investment trusts based in Germany (e.g. DWS Invest Agribusiness, Aquila Agrarinvest) are operating on international markets for farmland (FAZ.NET, 2010a), none of them has been operating in Germany up to now. This contrasts with reports in German magazines that "multi-million investment trusts" or "non-agricultural companies or wealthy individuals" have discovered agricultural land and agricultural production as an attractive investment option (DEGGERICH, 2010). Recently in the New Länder, some very large agricultural companies, even by East German standards, have arisen via the acquisition of numerous farms with large acreages. Three of these conglomerates – often named in the press and likely to be the biggest in Germany - each cultivate up to 30,000 hectares of farmland, with emphasis on the production of bio-energy (BRENDEL, 2011).

The opinion of the National Farmers' Union (NFU) in land matters is highly relevant, since its attitude towards farmland favours a high proportion of proprietorship and secure access to the land, and nonagricultural investors seem to jeopardise this notion. Consequently, the NFU has demanded an adjustment of legal norms in order to keep land in the hands of existing farmers (AGRA-EUROPE, 2011). So far, however, there are no scientific analyses of non-agricultural investors in Germany based on statistical or empirical investigations. Policy makers, therefore, lack reliable information about the activities of such investors with respect to the purchase of land or capital shares in agricultural holdings. In particular, the impacts of these activities on the farmland market, agricultural structures and rural areas are largely unknown (BMELV, 2010). Given this background, FORSTNER et al. (2011, 2012) undertook an investigation of the issue and their study is summarised in this article.

The aim of the study was to take stock of the activities of non-agricultural and supra-regional investors on the agricultural land market in Germany. The relevance of such activities is explored, as well as influencing factors and impacts on land availability, agricultural production, and local and regional development. The remaining part of the text will be structured as follows. Firstly, in section 2, we will outline the relevant legal framework for land transactions and review the main developments associated with the market for land in Germany. In section 3, we define the objective of the investigation and clarify the methodological approach of the study. In the section that follows, we present the main results of the empirical work, including numerous interviews with experts and farmers, in the framework of four regional case studies. Finally in section 5, the findings of the study are assessed in the light of policy implications.

2 The German Agricultural Land Market: Legal and Economic Background

German Law on Real Estate Transactions

In Germany, the agricultural land market is legally regulated to secure existing, competitive agricultural enterprises and thus an agricultural structure that provides competitiveness and efficiency (NETZ, 2010: 216). The German Law on Real Estate Transactions (Grundstückverkehrsgesetz (GrdstVG)) is especially relevant in this context and, under certain conditions, stipulates a pre-emption right for farmers against nonagricultural investors. All land transfers have to be notified, and those above a certain size (two hectares in most Länder) must be approved by a responsible administration office. Permission shall be denied in cases where the purchaser is a non-farmer and there are local farmers who need to increase their farm size. In these circumstances, the competent state agency (Landgesellschaft) may exercise its pre-emption right and transfer the parcel in question to a farmer, at the same price as specified in the original purchase contract. According to the association of Landgesellschaften, the number of cases in which the pre-emption right has been considered increased from 242, in 2005, to 801 cases in 2011 (BLG, 2012). This may suggest either a growing interest in farmland by nonfarmers or, on the other hand, increasing sensitivity on the part of the approving authorities. While the GrdstVG is described as a 'blunt instrument' by many experts, its preventive effect is also often recognised.

Privatisation of State Land in the New Länder

Since 1990, the market for farmland in the New *Länder* has been dominated by the privatisation of former state-owned land. This, formerly expropriated, land comprised about 1.1 million hectares in 1990, corresponding to about one fifth of total farmland in East Germany. However, although a huge proportion of the state land has already been privatised by the state agency Bodenverwaltungs- und -verwertungsgesellschaft mbH (BVVG), there was still (in 2011) a total of 300,000 hectares to be passed into private hands. The privatisation rules have been subject to repeated and ongoing political controversy. The fundamental course was established in 1993, with the decision on long-term lease contracts with local agricultural holdings and the gradual sale of land, with attention to the economic performance of local farms. After a legislative review in 2000, the latter were given exclusive entitlement to buy a certain quantum of land with a 35% discount from the market price. The determination of market prices was of central importance at that stage. Renewed negotiations were initiated by a judicial review of privatisation rules with respect to European competition law. The political compromise implied that, from 2007 on, tender procedures for sales and the leasing of lands would become regular instruments of privatisation (MÜLLER and KITTLER, 2011). Local farms still have the option of buying certain lands directly, but at market prices that are determined by taking all market transactions - including tender results - into account. This pricing procedure is criticised by both farmers and policy makers in the New Länder because it might lead to inflated land costs which could not be covered by agricultural production. However, the BVVG enhances market transparency by publishing the highest bids, thus overcoming information asymmetry between farmers and (small) landowners, and improving the functioning of land markets.

General Economic Background

The economic conditions of recent years have led to an increasing willingness to pay for agricultural land. In the current economic and financial crisis, concerns about inflation enhance the appreciation of land as an investment of lasting value (FAZ.NET, 2010b). Current low interest rates reduce the profit margins of bond investments and, at the same time, facilitate debt-financed investments. Furthermore, due to an increasing worldwide demand for food and energy crops, long-term price expectations on the food market are notably higher than they were some years ago. State support for renewable energy production in Germany has enhanced the profitability of biogas production (DBFZ, 2011), leading to a strong increase in both the development of biogas plants and in the demand for biogas crops. Additionally, the consumption of land for settlement and infrastructural purposes (including environmental compensation measures) has led to shortages of agricultural land in several regions.

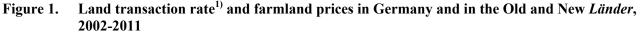
Market for Agricultural Land

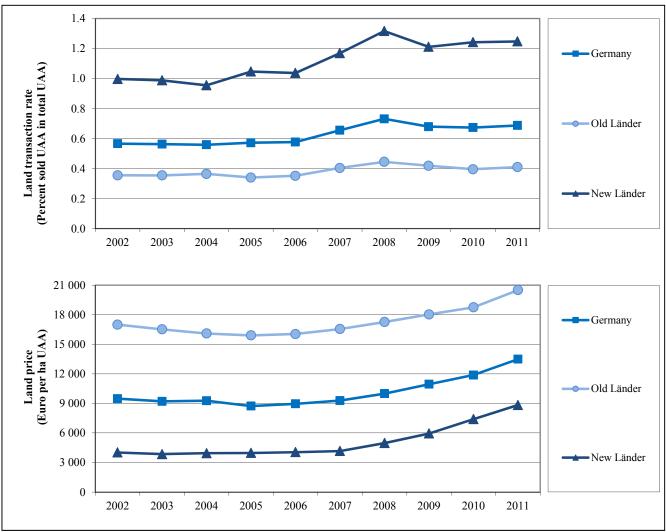
The German market for agricultural land is, according to statistical data, very heterogeneous. Above all, large differences exist between the Old and New Länder (see Figure 1). In the Old Länder, 0.4% of the utilised agricultural area (UAA) was sold annually over the period 2005 to 2011, whereas this fraction in the New Länder was 1.1 to 1.4% per year. The figures in both cases are without any clear trend. However, the figures from land market statistics do not include sales of entire agricultural holdings. Sale prices in the Old Länder have risen, on average, from 16,500 €/hectare in 2007 to 20,500 €/hectare in 2011. By comparison, the increase in absolute figures in the New Länder has been slightly higher, rising from 4,200 €/ hectare in 2007 to 8,800 €/hectare in 2011. However, the relative price increase in the New Länder has been four and a half times higher (+112%, in contrast to +24% in the Old Länder), giving reason to the heated debate on farmland prices and privatisation.

The East German land market is divided into BVVG transfers and other transactions. The strong price increase in the New Länder is mainly due to rising BVVG sales' prices. While the market for private land is characterised mainly by the personal relationships between landowner and purchaser/tenant, and lack of market information on the part of the landowner, the BVVG sells/leases land at current market prices without attention to personal relationships. BVVG sales still dominate the land market in some Länder: in Mecklenburg-Vorpommern they amount to almost half of the total area sold and in Brandenburg and Saxony-Anhalt to about one third. By the end of 2011, there were still 300,000 hectares of BVVG land under lease (BVVG, 2012), amounting to about 5.4% of total UAA in the New Länder. As privatisation progresses (termination is expected in 2025) the impact of BVVG sales on the market for farmland will gradually decline.

3 Methodological Approach

The theoretical basis for investment in farmland includes a range of perspectives. The farmland market is influenced by state interventions and regulations, as well as numerous other factors that lead to deviations





¹⁾ measured in percentage of sold UAA in total UAA per year Source: illustration of statistical data (DESTATIS, 2012a)

from conventional (neo-classical) market models. Since the supply of land is limited and single parcels of land have a fixed location, there is no full competition for individual land parcels or for the land market at all. The theoretical concepts that can contribute particularly well to our investigation include risk management approaches and findings associated with the field of behavioural finance. The latter approach tries to integrate sociological and psychological findings (or assumptions) with the behaviour of human beings. Besides maximising the return on invested capital, there are also many other investment objectives relating to influence (power), reputation, market share, charity, emotions, etc. Similarly, with regard to land investment, there might be motives such as preference for a certain lifestyle or the resumption of family tradition. The relevant decision criterion is one of utility maximization. Typical patterns of investor behaviour, for example, include naïve diversification, home bias, overconfidence, regret avoidance and herd behaviour (DEUTSCHE BUNDESBANK, 2011; SCHNEIDER, 2010).

Since there is little knowledge of non-agricultural investors and their motives for investing in farmland or agricultural holdings, the main task of this investigation was to bring together the various relevant facts and assessments regarding the topic in a fairly exploratory way, and to analyse the resulting evidence with respect to the core questions: how relevant are nonagricultural investors and what is their impact on various aspects of economic and social development in rural areas?

Definitions

In order to obtain the information that is essential in assessing the relevance of non-agricultural investors in the farmland market, it is necessary to operationalise the approach of the study. Here, 'activities on the land market' are understood as the direct purchase or leasing of agricultural land. The purchase of capital shares in agricultural holdings – despite its possible impact on the land market – is not in the focus of the present study.

'Non-agricultural investors' and 'agricultural investors' cannot be distinguished by using formal criteria because the status of a farmer ('agriculture') is not applied uniformly across different areas of German law (e.g. fiscal laws, social security) and in statistics. Furthermore, many of the investors perceived as 'nonagricultural' are farmers in the legal sense. The perception of investors as 'non-agricultural' often depends on the length of time an investor has been engaged in agriculture, regional origin, and their degree of on-site personal commitment. The scope of the study has therefore been expanded to 'supra-regional investors'.

First ideas for the categorisation and definition of different types of investors were derived mainly from reports in journals and newspapers. These preliminary categories were presented to experts at both national and *Länder* level (see Table 1), discussed and subsequently adjusted. Finally, three main case groups of 'non-agricultural and supra-regional investors' were established, the central focus being on persons or institutions who/which

- 1. are not engaged in farming and purchase land which they rent out to farmers;
- 2. originate from non-agricultural sectors but (intend to) engage in farming; they purchase or lease land in one region and operate the farm by themselves or by a farm manager;
- 3. originate from the agricultural sector, but are 'supra-regionally' active; that is, they purchase or lease land in various regions, and manage the farming themselves and with farm managers, but are not perceived as integrated into community life.

Beyond these three main groups, there are further types of investors to which less relevance was attributed, including investment funds, large commercial energy producers, church and charitable organisations, and land management companies (*Landgesellschaften*). Farmers who invest in farmland outside of their own potential farming area, and who lease the acquired land to regional farms, were also mentioned occasionally.

Expert Interviews at the National and Länder Level

As a first step in the empirical work, 19 interviews were conducted with experts at the national and *Länder* levels; namely, with representatives from the ministries of agriculture, farmers' associations, financial institutions, *Landgesellschaften*, and the BVVG headquarters (see Table 1). The aim of these interviews was

• to gain insights into the different perceptions of the issue from the viewpoints of individual *Länder* and stakeholders,

Interviewees	National / supra- regional level	<i>Länder</i> level	Regional level (case studies)	Total
Ministry of Agriculture		6		6
Farmers' association	3	3	4	10
Financial institution	3		4	7
Land management company	1	1	3	5
Consultant (farm business)			3	3
Land transaction approval agency / valuation expert committee			3	3
Local administration (e.g. mayor)			3	3
Farmer / Investor			40	40
Broker			1	1
BVVG	1		3	4
Rural cooperatives' association	1			1
Total	9	10	64	83

Table 1.Overview of the various groups and number of interviewees at supra-regional, Länder and
case study level

Source: own compilation

- to inquire about their assessments of the relevance of different types of non-agricultural investors,
- to obtain evidence about suitable case study regions.

Apart from their contribution to the definition of 'nonagricultural investors', the experts were also asked the following guiding questions:

- What is your understanding of a non-agricultural and supra-regionally oriented investor (in short: 'investor')? Which types of 'investors' do you know and how do you assess their relevance?
- Do you have information that the number of 'investors' buying farmland and the amount of farmland bought by 'investors' tend to be on the increase? (Kind and source of information? Noticeable cases?)
- How do you judge the developments on farmland markets? Which problems do you see now and in the future?
- In your opinion, what most influences the developments mentioned above?
- What are the special characteristics of 'investors'?
- Do you think the existing legal framework is appropriate? What should be changed?

Additional questions were added with respect to the type of interviewees. For example, experts from the ministries were asked about their policy goals with respect to the organisation of farmland and farm holdings, and financial institutions were questioned about the financial conditions of land purchase using credit.

Case Studies

As an appropriate methodological approach for gaining the necessary information on relevance, types and impacts of 'investor activities', we chose the case study method. The rationale behind is that there are hardly any secondary statistics about such activities available, and the information required to answer the core questions (about type of 'investors', relevance and impact) cannot be collected easily by a survey. According to YIN (2009), case studies are appropriate when the research questions require an extensive and 'in-depth' description of social phenomena, particularly an understanding of pertinent developments, and when the focus of the study is on contemporary developments or events.

In the case studies, we tried to identify information on 'investors' by questioning selected stakeholders, in order to gain meaningful, consistent and valid information. With that purpose in mind, we chose districts (NUTS 3 regions) for the study which were characterised by relatively high increases in the prices of farmland, and which were recommended by experts because of numerous, assumed 'investors'. We restricted our interview work to two or three municipalities within each district. Thus, we assumed that individual responses could be counter-checked, so that rumours, interest-led exaggerations and estimations based on information from hearsay could be eliminated.

One technique for achieving a reasonable, wellfounded assessment of the percentage of 'investor purchases' on the land market was to ask the farmer to make a 'guess' at first, and then to consider the position on each of the neighbouring farms in order to substantiate his own guesswork.

Table 1 gives an overview of the types and numbers of experts who were interviewed. In total, 83 interviews were conducted, representing 64 at regional level, ten for the *Länder* and nine at national level. The largest group of interviewees was that of farmers, who made up nearly 50% of all those interviewed.

4 Empirical Results

The empirical results are based on 83 interviews (Table 1) conducted between February and June 2011. Interviews took place at the supra-regional and *Länder* levels in the first stage, whereas the second stage comprised the regional level case studies.

4.1 Expert Interviews at the National and Länder Levels

Our findings indicate that the issue of 'non-agricultural and supra-regional investors' is deemed to be particularly relevant by the ministries of agriculture of Mecklenburg-Vorpommern (MV), Brandenburg (BB) and Saxony-Anhalt (ST). This is linked to the high share of BVVG land sales in these *Länder*. The relevance of this issue has increased since the review of BVVG privatisation rules in 2007. Experts from other ministries and farmers' associations attribute moderate relevance to this issue; bank representatives attach little relevance to it.

According to the experts, the supra-regional investors who buy land or entire farms in various regions are most important. Besides that, major relevance is attributed to interventions 'behind the scenes' and to the concentration of capital in corporate farms. Less importance is given to investors who buy land and offer it for lease.

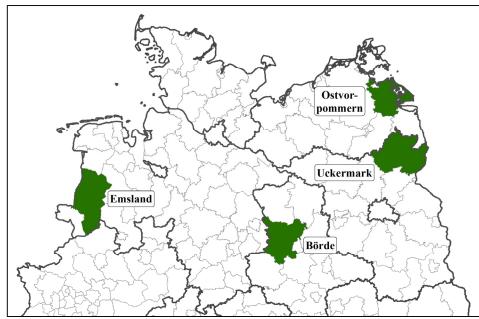


Figure 2. Location of the selected case study districts in North Germany

Source: own compilation

With regard to land markets, experts from MV and BB, in particular, believe that the strong price increase – mainly of BVVG sales and leasing prices – could jeopardise economically weak agricultural holdings. The concentration of land in the hands of a few is regarded with concern by the MV Ministry of Agriculture because it would lead to "a manor-type economy as it was a hundred years ago".

In terms of the legal framework, the *GrdstVG* is regarded as a 'blunt instrument', though it has a preventive effect on non-agricultural investors in the farmland market. However, the experts see deficiencies in the implementation of the *GrdstVG*, resulting in inconsistent application in the *Länder* and districts. With regard to the BVVG privatisation rules, experts agree that the compromise, negotiated by numerous political actors and other stakeholders (see section 2), should not be reconsidered.

4.2 Case Studies

The main part of this research consists of four regional case studies undertaken in the districts (NUTS 3 regions) of Uckermark (BB), Ostvorpommern (MV), Börde (ST), and Emsland (Lower Saxony). These case study regions were selected according to various statistical indicators (land mobility, price development, soil quality, agricultural structure) and assessments made by the experts. In addition to three districts in the New *Länder*, the Emsland district was chosen as a contrasting case in the Old *Länder*, where there is no influence arising from the privatisation of state land. Furthermore, the Emsland district also shares the characteristics of a dynamic land market, with markedly rising prices.

Within these districts, surveys were focused on distinct municipalities in order to gain deep insights into small-scale regions. In each case study area, structured interviews were conducted with about ten farm managers and ten regional experts from agricultural offices, local administration, farmers' associations, regional banks, and the BVVG

(only in the New *Länder*). Although they were invited to participate, no interviews could be held with the personnel of supra-regional investors.

4.2.1 Characteristics of the Case Study Districts

The selected case study districts exhibit fairly different general characteristics (see Table 2). While the study regions in the New Länder are characterised by relatively high unemployment and low per capita income, the situation in Emsland is quite different. This is remarkable, since Emsland was among the 'poorhouses' of West Germany until the 1970s when infrastructural projects, initiated by the state, contributed to a rapid and sustained economic boom. The Emsland is marked by intensive farming, especially animal husbandry, and land prices are comparatively high despite the low soil quality. In Ostvorpommern, however, where the economic situation is far below average, the sale prices of land do not even reach half of those observed in Emsland, and the price level is also markedly lower than in Uckermark and Börde. In the Börde district, where soil quality scores are the highest in Germany, farmland prices are considerably above the average level of the New Länder. Land markets in the case study districts of Uckermark and Ostvorpommern are strongly influenced by the BVVG which, in 2010, had shares of 74% and 47%, respectively, in the total acreage of land sales. Also, due to the high proportion of BVVG in total sales, land

	Uckermark	Ostvorpommern	Börde	Emsland
Unemployment rate (Dec. 2011) ⁽¹⁾	17.1%	13.8%	7.7%	3.3%
GDP/head (2009) ⁽²⁾	20,224 €	16,496 €	23,331 €	27,697 €
Soil quality	Poor to medium	Poor to medium	Very high	Poor
Production focus	Cash crops, energy (biogas)	Cash crops, energy (biogas)	Cash crops	Animal husbandry, energy (biogas)
Share of BVVG land $(2010)^{(3)}$	15% of UAA 74% of sales	10% of UAA 47% of sales	6% of UAA 4% of sales	-
Land transaction rate $(\emptyset \ 2007-2010)^{(4)}$	3.1%	2.4%	2.0%	0.5%
Land sale prices (2010) ⁽⁴⁾	12,780 €/ha (tripled in 3 years)	7,500 €/ha	12,200 €/ha	30,700 €/ha
Peak prices for arable land $(2010)^{(5)}$	30,000 €/ha	22,000 €/ha	35,000 €/ha	50,000 €/ha
New lease prices $(2010)^{(5)}$	400-600 €/ha	400-600 €/ha	400-1,000 €/ha	600-1,200 €/ha

Source: ⁽¹⁾ ARBEITSAGENTUR (2012); ⁽²⁾ DESTATIS (2012b); ⁽³⁾ BVVG (2011); ⁽⁴⁾ DESTATIS (2012a); ⁽⁵⁾ information given in case studies

mobility measured in terms of the land transaction rate is at relatively high levels in Uckermark and Ostvorpommern. Highest bids for BVVG land tenders are considerably above the prices published by official statistics. Farmers (at least those who were interviewed in the case studies) are mostly well-informed about these peak bids. The same holds true for peak prices in the Emsland, although they are not officially published.

4.2.2 Case Study Results

In the following sections we describe the results of the case studies, firstly with a view to the individual study areas and secondly, with regard to the relevance and impacts of non-agricultural and supra-regional investors.

Uckermark District

In the Uckermark district, most interviewees found the relevance of non-agricultural and supra-regional investors difficult to assess. They guessed that between 10% and 25% of total acreage is held by 'investors' but that, in a few villages, this figure could reach 50%. There are numerous non-agricultural investors of various types; some have family roots in the region while others are engaged supra-regionally without prior links to present farm locations. Most investors started their local engagement in the 1990s. The most prominent investor in the region is Steinhoff Familienholding GmbH which has taken over several LPG successor holdings² in recent years. Small non-

agricultural buyers of single parcels of land play hardly any role at all.

The impacts of investors are perceived ambivalently. Local authorities appear to assess their impact more positively with regard to local investment and local jobs. Local farmers acknowledge that most investors' farms are managed professionally and with commitment to the locality. However, the Steinhoff Familienholding was criticised for its one-sided orientation towards biogas production. Managers of *LPG* successors had concerns about the financially strong competitors on the land market.

A special regional institution in the Uckermark district is the *Bio-Bodenfonds*, which was arranged by the *GLS Bank* in order to safeguard 2,500 hectares of organically-cultivated land for 13 organic farms. These plots, which used to be leased by the BVVG, had been offered for sale. The capital needed was acquired by offering participatory certificates to private investors. Although this arrangement was assessed positively by nearly all interviewees, it is an exception arising from specific circumstances that cannot be transferred to the common farmland market.

Ostvorpommern District

The case study district of Ostvorpommern is divided into the island Usedom, and the area surrounding the

² LPG, or Landwirtschaftliche Produktionsgenossenschaft, compulsively or voluntarily collectivised agricultural

holdings in the former GDR system. LPG successors' farms are agricultural holdings in the form of legal entities (cooperatives, corporations) having adopted the members, lands, all assets and debts of former LPGs after 1990.

district capital, Anklam. In Usedom, there are many resettled farmers³, while *LPG* successors prevail in the area around Anklam.

According to the estimates of interviewees, 15 to 20% of agricultural land has been purchased by nonagricultural or supra-regional investors in this district. As well as land purchases, transfers of capital shares in corporate farms are also deemed as being significant. Some cases have been reported in which a shareholder has wished to leave the holding for reasons of age and the (few) remaining shareholders were not strong enough financially to raise the redemption payment. In Usedom, two investors were said to be acting aggressively on the local land market and creating serious conflicts with local farmers who are more accustomed to consensual activities.

There are different assessments as regards the impacts of non-agricultural investors. Their production focus is mostly on cash crop, as it is generally in the region, although three investors included in this case study specialise in animal production. Farmland losses, caused by external investors, have not been reported as a major danger for existing local farms. In the Anklam area, some of the new investors are said to be behaving like benevolent 'lords of the manor', refurbishing churches or other historical buildings, organising harvest festivals, or becoming involved in local politics. Other investors, showing none of these features, are assessed more negatively.

Börde District

A high percentage of farms in the Börde district is managed by resettled farmers and also by newlysettled farmers (especially from the neighbouring state Lower Saxony), having leased or purchased farms shortly after reunification.

Interviewees reported that there are investors, mainly non-agricultural, who buy single parcels – with some investors buying a considerable quantity of parcels – and lease them to farmers. Some farmers even search for this type of investor, because of the need for capital to secure the basis of their farming activities. However, the purchase of whole farms by supra-regional investors is not found in this fertile region because local farms are highly competitive. This means that substantial amounts of capital would be needed to purchase entire farms or large plots of land. Due to the relative unimportance of large investors in the Börde district, there are no detrimental effects on production, jobs or regional development. In contrast, the activities of small private investors are deemed to be beneficial by local authorities and banks. Additional capital inflow to former landowners could have a positive impact on consumption, and farmers who do not purchase land are able to save liquidity for alternative investments. On the contrary, farmers complain of the additional pressure on prices resulting from increased competition.

Emsland District

In the middle and northern part of the Emsland district, where farmers were settled by state incentives in the early years of the 19th century, farmers show relatively little affection for the acquisition of land, as property. Therefore, farmers have a comparatively low demand for the purchase of land, especially since investments in animal breeding technology are more profitable. However, maintaining cultivated area is an important option for further development and farmers in the interviews reported leasing prices of up to 1,200 €/hectare when short term leasing contracts are renewed. Farmers suggest that the imputed ground rent with regard to conventional agricultural production, excluding energy production, would be limited to between 500 and 600 €/hectare in the region. Nevertheless, leasing prices are not only influenced by the high profits of biogas production, but also by specific tax benefits for farms that do not exceed a certain livestock-land ratio, and environmental regulations for livestock farming.

Non-agricultural investors are seen to have little significance, according to most of those interviewed, although such investors purchase a considerable share of land in this study district. In this context, estimates range from 20 to 30% of total area sold and the demand for land by non-farmers has increased notably. However, since all investors lease the acquired parcels back to the farmers, no effects have been reported on agricultural structure (e.g. farm size or production) up to now.

4.2.3 Relevance of Non-Agricultural and Supra-Regional Investors

Non-agricultural and supra-regional investors are notably more relevant in the eastern case study regions than in the Emsland district, although notable differences exist within the eastern regions. With respect to the proportion of total area purchased by these investors, estimates suggested by the interviewees range

³ Former *LPG* associates who have started their own business by extracting their assets from the *LPG*.

from 50% in parts of the Ostvorpommern district, to 10% in the Börde district. These estimates are based on land or farm purchases. The significance of capital involvement 'behind the scenes' (e.g. the purchase of shares in farm corporations) cannot be assessed, though there were some indications of this in various interviews.

In order to characterise non-agricultural and supra-regional investors effectively, it is necessary to differentiate their activities with respect to: a) the starting date of investment, b) the scale of investment, c) regional involvement, and d) the origin of capital.

a) Starting date of investment: most of the investors named in the interviews commenced farming activities in the New *Länder* during the 1990s. Thus, they have been local residents for up to 20 years, which is almost a generation. They are farmers, in the legal sense, like other local farmers. This also holds true for the prominent supra-regional investors who started to invest in the years before 2000.

b) Scale of investment: currently, there are only three supra-regional investors known to cultivate more than 10,000 hectares (up to 30,000 hectares each). The more common case are investors who buy a single holding (mostly an estate or an LPG successor) in its entirety and manage it themselves or with the help of an employed farm manager. Also, a large number of investors purchase land on a small scale in order to acquire an asset with a stable value and to lease the land to local farmers. While the 'supra-regional' investors are striving for rapid growth by purchasing further holdings, most investors in a single holding remain focused on just one location.

c) Regional involvement: three supra-regional investors are known to have absorbed numerous farms situated far apart. The KTG Agrar AG, for example, which is listed on a stock exchange, is active at 30 locations in four East German Länder⁴. Consequently, there is no central farm location in the conventional sense and field work is often carried out by non-local personnel using large-scale machinery across several locations. Individual farms are managed as affiliates, and production is extended, maintained, or reduced, depending on profitability. In contrast to that 'model', there are cases in which the new investor of an acquired farm has kept existing personnel and, thus, the change in ownership has gone widely unnoticed by neighbours. In most of the reported cases, the investor himself, or the employed farm manager, lives at the farm location and is fully integrated into the village community.

d) Origin of capital: investors' capital arises from various industrial sectors, for example, furniture, logistics, banking, printing, livestock trading, etc. Only two listed stock companies with access to capital from the stock market were identified, and just one closed-end real estate fund (*Bio-Bodenfonds* in the Uckermark district). With regard to the regional origin of capital in the Börde district and also in the Uckermark, much of this comes from the Old *Länder*.

Overall, investor circumstances are very heterogeneous. Therefore, any attempt at quantitative analysis would not lead to additional information, nor would it be valid in the statistical sense.

4.2.4 Evaluation of the Impacts of Non-Agricultural and Supra-Regional Investors

The findings of the case studies show that interviewees evaluated the impacts of non-agricultural and supra-regional investors differently, depending on their personal interests. While the majority of local farmers and farmers' associations were critical of such investors, the interviewees with interests in regional development (e.g. administration, banks) appear to have a more positive opinion. However, there were positive statements from local farmers too, for example: "If investors are interested in agriculture, the prospects cannot be so poor", "Who knows if someday you need some investor's capital yourself?", or "Non-agricultural investors are better lessors than old farmers." In the following analysis, the assessments given by the interviewees are broken down into impact spheres, as summarised in Table 3.

Land Market

According to the results of the case studies, the land market is influenced mainly by the privatisation of BVVG (New *Länder*), support for the production of renewable energy, and the price development of agricultural products. These are also the reasons why farmers themselves make high bids for farmland which is for sale or for rent. Therefore, non-agricultural investors are mainly regarded as strong competitors, rather than price boosters, on the market for land.

In the Ostvorpommern and Uckermark districts, some managers of *LPG* successors are critical of new investors because they might disturb the well-organised cooperation among old-established farmers who exhibit mutual respect with regard to their market territory in sales and rentals. Sometimes, new investors might act very aggressively on the market, but

⁴ Moreover, there are locations in Lithuania.

	Uckermark	Ostvorpommern	Börde	Emsland		
Relevance on the land market	 high (about 20% of UAA) capital mainly from the Old <i>Länder</i> partly earlier family roots mainly acquisition of whole farms 		 hardly purchase whole farms often purchase and lease back 			
Impacts:						
- Land market	more competition for local farmsslightly higher land prices		- more competition for local farms	- slightly higher land prices		
- Production and employment	 mostly good farm management tendency towards cash crops and bioenergy tendency towards a reduction of workforce 		Almost no impact	Almost no impact		
- Endangering of local farms	 no case reported financial aid for local farms complete takeover of farms 		Almost no impact	Almost no impact		
- Regional develop- ment and village culture	 increase of local investments (by investors) mostly positive local integration negative cases seem to be overestimated 		Almost no impact	Almost no impact		

 Table 3.
 Summary of results: relevance of investors and impacts on core areas

Source: own compilation

this also holds true for agricultural investors. However, from the perspective of farm managers, it is understandable that disruption to the favoured cooperation model is assessed negatively, because cooperation enhances planning reliability, and also diminishes transaction costs and factor prices due to reduced competition on the land market. Conversely, landowners prefer competition in order to promote a fair market price. Generally, regional land price cartels inhibit potential efficiency gains in agriculture. Furthermore, increases in the price of land enhance income opportunities for landowners and increase the loan values of farms.

Production and Employment

Among the 'investor farms', there are holdings which focus on energy production (biogas) and cash crops, and livestock does not fit the intended organisational structure of the corporation. However, there are also 'investor farms' with mixed production and high value-added intensity per hectare. Even within the same investor group, affiliates differ considerably in both labour intensity and added value per hectare.

Although there is criticism of the economic approach of investors specialising in biogas, their management is regarded as professional. When livestock breeding activities and jobs are reduced, or croprotations are simplified, this is rather ascribed to profit orientation than to any special 'investor mentality'. In some cases, where the livestock enterprise had been scaled down or totally removed, interviewees confirmed that this would have been a necessary step anyway due to lack of profitability.

Endangering of Local Farms

Apart from statements about increased land prices threatening the stability of farms in general, there has been no case reported in which the activities of nonagricultural or supra-regional investors would have endangered the existence of local farms. In contrast, according to several reports, farms in need of capital have been revitalised by investors, through contributing liquidity in the form of loans, purchasing company shares, or organising a complete takeover. Presumably, there are many farms drawing on smallscale investors in order to secure the disposal of land without weakening their own liquidity.

Complete takeovers of farms by non-agricultural investors are important in the Ostvorpommern and Uckermark districts. Corporate farms with a high concentration of capital, in the hands of few shareholders, are mostly affected. When shareholders resign for reasons of age and shares need to be redeemed by the remaining shareholders, large sums of capital are needed which cannot be raised by local persons. This creates a good entrance opportunity for new investors and can lead to a complete takeover of the farm in the long run.

Regional Development and Village Culture

According to the interviewees, most investors, or the farm managers employed by them, are settled locally and well-integrated in village life. Additionally, the capital invested often enhances the value and attractiveness of local buildings. In consideration of the unique position of the farm as a focal enterprise in the village, community festivals or field trips for local landowners are often maintained or resumed. Some investors behave differently, showing little local presence and no responsibility for local matters, but this is reported also in the case of agricultural investors.

It seems that single negative cases, combining biogas production, job reduction and large machinery, are widely reported in the press. This enhances scepticism about non-agricultural investors yet, in contrast, the 'normal' activities and positive impacts of most of these investors are hardly reported. Presumably, investors' origins are relevant too; most come from West Germany or neighbouring Western European countries and are taking over farms which were laboriously built up by East Germans. This is a sociopsychological aspect which has not been reported openly, though hinted at, almost subconsciously, in several interviews.

5 Discussion

The group of investors referred to as 'non-agricultural investors' is very heterogeneous and cannot be delimited by clear indicators. As a consequence, the core question about the relevance of investor activities can only be answered with respect to type of investor. In general, investors from outside agriculture are common in the New Länder, but an increase in the number of investors in recent years cannot be identified from the information available. However, such investors have attracted strong public attention, especially in the New Länder, because of the enormous increases in land prices. The latter is a consequence of the change in general economic conditions, such as expectations of higher prices for farm products, regulations for renewable energies and a higher valuation for investments of lasting value. These circumstances have been enhanced by the modification of laws with respect to the privatisation of state land in the New Länder since 2007, which has led to more competition and transparency on the East German land market.

The impacts of non-agricultural and supra-regional investors on the land market cannot be evaluated uniformly with respect to production, labour, agricultural structures and regional development. In this context, any judgement would greatly depend on the selection of the regional case studies, the interviewees and their own interests. The enormous variety of non-agricultural and supra-regional investors and of their characteristics and behaviour prohibit over-simplified answers. 'Investors' are normally regarded less critically or even positively, when they integrate well into the local community or, as one interviewee put it, "when the investor's children go to the same nursery and school as the local ones". This is also held to be the case when investments secure or deliver jobs and when they are oriented long-term, rather than focused on short-term profitability, and when investors cooperate with the neighbouring local farms.

This study delivers important initial insights into so-called investors on farmland markets. These insights, however, do not have general validity, and - because they are mainly based on regional case studies - they cannot simply be transferred to other regions. The case studies have a primarily explorative function. To compensate for lack of available knowledge, and in order to become more representative, the investigation should be extended through (a) enhancing the number of case studies systematically and (b) conducting surveys which focus on, for example, regionally active consultants, expert committees for land valuation and estate agents. However, even then, there would remain insufficient knowledge about capital share purchases in corporate farms, as well as the possible involvement of big (industrial) investors from the energy sector. In a next step, therefore, we will investigate the relevance and impact of investors in 'behind the scenes' activities, as the shareholders in corporate farms. For this purpose, an attempt will be made to analyse the lists of registered members of limited liability companies, which represent the most common type of corporate farm in the New Länder.

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