

<https://doi.org/10.17221/233/2016-AGRICECON>

Barriers to exit encountered by small farms in light of the theory of new institutional economics

LUKASZ SATOLA^{1*}, TOMASZ WOJEWODZIC², WOJCIECH SROKA²

¹*Institute of Enterprises Economics and Management, University of Agriculture in Krakow, Krakow, Poland*

²*Institute of Economic and Social Sciences, University of Agriculture in Krakow, Krakow, Poland*

Corresponding author: lsatola@ar.krakow.pl, lukasz.satola@wp.pl

Satola L., Wojewodzic T., Sroka W. (2018): **Barriers to exit encountered by small farms in light of the theory of new institutional economics**. *Agric. Econ. – Czech*, 64: 277–290.

Abstract: For at least 25 years, processes involving structural changes have been growing more and more intense in the countries of Central and Eastern Europe, with these processes including a decline in the number of small farms. The main aim of this paper is to present the mechanisms involved in, as well as barriers to and costs preventing the exit of farms from agriculture, including those that make it difficult to transfer production resources which are being released to other companies. This research takes the form of an overview and is based on the output of new institutional economics, and on transaction cost and rent-seeking theories in particular. The most frequent difficulties encountered in the process of exit from farming include low profitability of production and the shortage of capital among potential buyers, while the lack of sellers' financial resources and the necessity of incurring expenses related to preparing and finalising the sale of resources held by them (the actual transaction costs related to closing down farms) are frequently overlooked. The most important barriers preventing the complete liquidation of farms are the inherent transaction costs categorised as expenses, as well as the emotional costs and costs of alternatives, which are difficult to evaluate and estimate. The following notions are particularly helpful in explaining barriers to exit from farming: the concept of transaction costs and rent-seeking theory, which are both a part of the stream of thought of new institutional economics.

Keywords: new institutional economics, rent-seeking theory, transaction costs, transformation of farms

Issues of structural change fall within many authors' areas of interest, and in the majority of empirical studies, the main focus of discussion is on the driving forces behind these processes. Studies concerning particular groups of entities exiting the agricultural sector are mainly concerned with the size of farms' production resources, the efficiency of their utilisation (both economic and technical), economies of scale, and the efficiency of obtaining and utilising subsidies that are decisive for the continuation or withdrawal (exit) from agricultural activity (Breustedt and Glauben 2007; Abelairas-Exebarria and Astorkiza 2012; Raggi et al. 2013). Furthermore, many authors (Schnicke et al. 2008; Viira et al. 2009; Grubbström A. 2011, Peel et al. 2016) also point to the social characteristics of the farming family, such as the age of the head of the establishment, his or her level of education, sources of income, the existence of a successor and even farmer wellbeing, etc., which also play an important part in the processes of exiting agriculture.

The authors of the studies mentioned only take the various different barriers to exiting agriculture into account to a very limited extent, based on neoclassical assumptions regarding the relative ease of exiting the market. It should also be noted that neoclassical theories, in most cases, ignore the role of institutions in shaping the conditions for the development (and collapse) of a farm, as well as the rules of functioning of the agricultural land market (Samsura et al. 2010; Needham et al. 2011; Van der Krabben and Buitelaar 2011; Holtslag-Broekhof et al. 2014).

The alternative to the neoclassical school is to base research upon the premises of new institutional economics (NIE) and to take advantage of both transaction cost and rent-seeking theories. This approach is particularly useful in transnational studies, as barriers to exit from agriculture tend to be highly diversified here (as a result of the activities of different institutions) and may even differ on the level of individual farms (Van Dijk and Beunen 2009; Vidican 2009).

Eurostat data indicates that in the EU-12 Member States, the number of farms decreased during the period 2005–2013 by approximately 27%, and this regression could even be twice as high in some countries (such as Bulgaria) (Eurostat 2016). The changes were particularly significant for small-scale agriculture, as approximately 30.6% of farms < 2 ha disappeared in the new 12 Member States during the period 2005–2013, as well as 27.4% of establishments sized 2 to 4.9 ha (Eurostat 2016). However, research shows that only a small number of farms decide to sell their land quickly after discontinuation of their agricultural activity (Raggi et al. 2013). Full exit from agriculture, through selling or long-term rental of the establishment, involves major divestments that usually take several years (Peerlings Ooms 2008). In addition, exiting agricultural activities implies significant costs in the form of actual spending, as well as costs of lost profits or opportunities (Van Dijk 2007; Hartvigsen 2013).

AIM AND THEORETICAL FRAMEWORK

The main aim of this article is to present the mechanisms involved in the disappearance of small farms, as well as to identify the barriers and costs that prevent these entities from exiting agriculture and transferring their production resources to other agricultural holdings. The analysis was narrowed down to four Central and Eastern European countries, namely Romania, Bulgaria, Poland and Hungary, where, according to Eurostat's data for 2013 (Eurostat 2016), over 65% of all small farms across the EU are found (small farms are those with < 5 ha of farmland). The selected countries are characterised by relatively similar historical backgrounds, as the agrarian reforms commenced there at a relatively late point in time and these countries then went through the process of collectivisation and subsequent decollectivisation of the agricultural sector. Furthermore, they are characterised by relatively low sizes of individual farms, and they can be effectively compared, considering the structure and type of their agricultural production (Hartvigsen 2014; Kanianska et al. 2014).

This research takes the form of an overview and is based on the output of NIE, and on transaction cost and rent-seeking theories in particular. When identifying the barriers to and costs of exiting agriculture, we should emphasise that changes in agriculture stem from farmers' individual decisions on

the re-allocation of production factors; therefore, it is reasonable to apply the theory of methodological individualism in this case (Arrow 1994; Wilkin 2005; Hodgson 2007). According to that theory, the methods and outcomes of social groups' and organisations' activities (including the activities of farms) should be viewed from the perspective of the preferences and activities of the individuals they incorporate. The outcome for the group is revealed through maximising the utilitarian value of the behaviours of the many individuals involved. This theory has its roots in neoclassical economics but has been adapted and enriched in the contemporary era by representatives of other approaches as well, including those of NIE (Gorynia 1999). Changes within the agricultural sector, including structural changes, largely depend on the activities of various institutions; thus, these processes should be evaluated using the methodological achievements of the NIE, which is continuously gaining in popularity (Hubbard 1997; Petrick 2008). The concepts of transaction costs and rent-seeking theory seem to be particularly helpful in explaining barriers to exit from agriculture. Both theories are recognised within the framework of NIE. As they take into account, *inter alia*, the principle of bounded rationality (Simon 1959), the opportunism of transaction participants and asymmetrical distribution of information (Akerlof 1970), they offer a better description and understanding of the processes occurring in businesses and agricultural establishments, including the end-stage of their activity. Research shows that transaction costs are also important for the currently established structure of farms in selected Central and Eastern European countries (Ciaian et al. 2009).

THE HISTORICAL CONDITIONS UNDERLYING THE PREVALENCE OF IMPEDIMENTS TO EXIT FROM AGRICULTURE

At the outset of our analysis, it is worth emphasising that the first agrarian revolution had a key influence on the formation of the current structure of agricultural establishments in Europe, and consequently, on the intensification of impediments to structural change in farms, including exit from agriculture, dating back to the 17th century (Koell 1998; Kopsidis and Wolf 2012). It was initiated in England and the Netherlands, before spreading to other Western Europe countries. By the end of the

<https://doi.org/10.17221/233/2016-AGRICECON>

18th century, it had succeeded in making the farming of North-Western Europe, mainly that of England, the most efficient worldwide (Allen 1999). The industrial revolution, which occurred concurrently to the agrarian revolution, was also of major significance for the development of agriculture. The introduction of new agricultural plants and machinery, followed by the steam engine and mineral fertilisers, strongly contributed to an increase of productivity in agriculture (Bidwell 1921). With processes of urbanisation and industrialisation, the market for the sale of agricultural goods was expanding as well, while landowners were acquiring funds for the development of their land and work, and, consequently, for improving the efficiency of their farms (Fields 1999; Yang and Zhu 2013). The growth of cities and industrialisation were important contributory factors to the enhancement and growth of agriculture in capitalist countries (Allen 1999; Kopsidis and Wolf 2012).

In Central and Eastern Europe, the agricultural and the industrial revolutions only commenced in the 19th century, and they continued throughout the 20th century (Edson 2005). Therefore, the transition from feudalism to capitalism (the turn of the 18th and 19th century) began with a delay of as much as 200–300 years behind the countries of North-Western Europe. In the countries studied, namely Poland, Romania, Bulgaria and Hungary, the feudal system remained in existence up to the 19th century (Téglási 2013). Agricultural reforms, as well as processes of investment in the agriculture of the countries studied were hindered by both the political situation and dependence upon other countries (restricted autonomy or lack of independence). The enfranchisement of peasants proved to be a turning point in the development of agricultural structures. In the countries studied, peasants were granted several hectares of land, and, as was later observed, this had the effect of strengthening the fragmentation of land (Davidova and Thomson 2014). After the enfranchisement of peasants, agricultural land became an object of trade, but, above all, an object of inheritance, which, according to the Napoleonic Code, involved the sharing of land among all children (such practices existed in Poland, Romania and Bulgaria). This process led to even deeper land fragmentation (Musiał 2012). Agricultural reforms were implemented after the First World War to streamline the land economy, but it was only with the Second World War that enormous transformations took place. Agricultural collectivisation, and its decollectivisation a few decades later,

contributed to the formation of the current agrarian structure (Hartvigsen 2013; Swain 2013, 2016). In the following years, structural changes could mainly be considered to be driven by market forces and the activities of various institutions.

Taking the works of North into account (1990), it should be pointed out that both historical conditions and different institutions are of paramount importance for the analysis of barriers to the exit of farms from agriculture. North (2008) notes that time can be considered to be the fundamental factor because it points to the experience that has been collected to date and its inter-generational accumulation. As a result of ‘learning’ and the gathering of a variety of experiences, particular communities shape their own institutions and acquire specific ways of problem-solving. In Central and Eastern European countries (including Poland, Bulgaria, Romania and Hungary), most official institutions in the field of agriculture only started to (independently) come into existence in the 1990s, and, for most of that period, their importance was underestimated (Theesfeld 2003). Some of the organisational and legal solutions (described later in this study), which resulted from falling under the spell of ‘the infallible mechanism of the free market’, are today regarded as important hindrances to the restructuring of agriculture (Grykień 2005).

FARMING EXIT MECHANISMS

The literature on the subject indicates that the processes involved in exiting agricultural activity are of enormous importance for the development of agricultural economics, i.e., they contribute strongly to the improvement of agrarian structures, increased efficiency and productivity (Raggi et al. 2013). Growth processes are frequently dichotomous and, therefore, growth of some entities is conditional on the disappearance of others, which will release land resources that remain in a state of relative shortage (Gale 1990; Breustedt and Glauben 2007; Hüttl et al. 2011).

Compared to the question of the economic growth of farms, issues relating to their disappearance and the exit from farming receive decidedly less coverage in literature on the subject (Goetz and Debertin 2001). The exiting of farms from agriculture is usually considered to be an integral part of structural change. This process is understood in two ways in the literature; on one hand, it refers to labour resources, i.e., the decreasing number of persons employed on farms

<https://doi.org/10.17221/233/2016-AGRICECON>

(Kimhi and Bollman 1999; Tocco et al. 2013); on the other hand, it is presented as a process affecting the entire farming establishment (Breustedt and Glauben 2007; Raggi et al. 2013). In the former case, exit from farming and the farmer's retirement or commencing of work outside the farm would not usually result in the release of land and capital (e.g., the sale or lease of land resources or capital), as they continue to be used by persons remaining on the farm, or by the farmer's successor (Glauben et al. 2002). Such change contributes to the improvement of rates of employment in agriculture; however, the overall structure in the area remains largely unchanged. An entire farm exiting farming is of much greater significance in the context of structural changes. It takes place through the sale, donation or renting out of land to other parties, or the abandonment of land (Raggi et al. 2013). As a consequence of this process, an agricultural establishment ceases to operate as a productive entity. Bankruptcy occurs significantly less frequently. Research in the United States (Stam and Dixon 2004), as well as in Europe (Breustedt and Glauben 2007), shows that bankruptcy and liquidation of farms are not very frequent, and processes of exiting farming are usually preceded by voluntary decisions taken by farmers to pursue that course of action.

When analysing the processes involved in the growth, development and exit of farms from agriculture, the concept of life-cycle is commonly used. The theory of the life-cycle of an organisation, including that of farms, has been cited and used very frequently in literature on the subject for many years, with Levie and Lichtenstein (2010) managing to count as many as 104 different models. Models defining the life-cycle of a business make an analogy to human life, as they distinguish between birth, growth, maturity and decline. Studies conducted, *inter alia*, in North America (Gale 2003), Europe (Breustedt and Glauben 2007; Calus and Van Huylenbroeck 2008) and Australia (Weller et al. 2013) corroborate that both progressive and recessive processes (exit from farming) are closely related to the life-cycle of a farmer's family, while their dynamics are determined by the demographic characteristics of the family, particularly the age of the farm's owners. Similarly, in the agriculture of countries dominated by small family-owned farms, the ability of these entities to persist over the centuries relied on their dualistic character, i.e., the integration of the productive entity and the household. With the succession between generations, as soon as the existing owners entered the phase of decline in production (advanced

age), there were successors among the closest family members who were ready and willing to take over the farm and who would usually give a new impulse for growth (Suess-Reyes and Fuetsch 2016).

With regard to the life-cycle of a farmer's family, at least three primary stages of farm development are distinguished, namely entry or takeover of a farm, followed by growth and survival and closing with exit from farming (Boehlje 1973; Schnicke et al. 2008). Numerous authors point out that the final phase is a critical point in the life of every farm, as it involves taking a decision on whether to continue activities or exit from farming (Mishra et al. 2004; Loblely et al. 2010). Unless the farm is transferred to the successor or sold in due time, its gradual economic decline follows. This process differs greatly from that occurring in other sectors of the economy. Bankruptcy, winding-up and liquidation in the legal sense take place very rarely in the case of family farms (Stam and Dixon 2004; Breustedt and Glauben 2007). The process of a farm's exit from agriculture much more often proceeds in the following order: limitation of production, discontinuation of production (abandonment of land), devastation or divestment and finally complete exit through the sale of the entity's remaining assets and the allocation of the land for non-agricultural activities (e.g., for housing development) (Coppola 2004; Musiał 2009).

With reference to the theory of a farm's life-cycle and on the basis of the work done by Wojewodzic and Musiał, we propose a differentiation between three basic models of exit from farming: (1) the succession model ('rebirth' of the farm); (2) the quick palliative divestment model (rapid 'death' of the farm) and (3) the slow economic decline model (slow 'dying-out'). In the first case, the farm will be successfully transferred to the successor – a family member who will continue with the farming activity. The new owner's energy and innovative ideas should foster further development and growth of the establishment's resources. As a consequence of implemented changes, the farm has the opportunity to return to the path of growth, or at least to continue with agricultural activity. Over recent decades, it is this model that would have been encountered most frequently, though with the changes to traditional models of management and inheritance caused by economic, civilizational and cultural progress, contemporary farm owners are more and more often faced with the challenge of a lack of successors (Koteva et al. 2009; Zagata and Lostak 2013).

<https://doi.org/10.17221/233/2016-AGRICECON>

In the quick palliative divestment model (Wojewodzcic and Musiał 2014), exit from farming occurs through the discontinuation of agricultural production with a simultaneous change in the methods of utilising land and capital resources (transition from agricultural to non-agricultural models). This takes place by means of extensive divestments, i.e., the selling-off of production resources or absorption of the given entity by another agricultural holding through a sale transaction, donation, merger or long-term lease. As a consequence of these processes, the farm ceases to exist in a relatively short time. Particularly for small farms, this model seems to be relatively infrequent, and occurs most commonly when there is an evident lack of a successor, a family conflict, a change of the whole family's domicile, the need to repay debt quickly, bankruptcy and liquidation of the farm, expropriation of the farmer, e.g., for the purposes of construction of public infrastructure or major demand for funds for investments (e.g., investments in non-agricultural activities) or for living purposes (payment of medical expenses, helping the children, etc.) (Smithers and Johnson 2004). A quick exit from farming, thus, most often takes the form of a forced divestment. Other authors such as Maart et al. (2011) and Raggi et al. (2013) underline that the re-allocation of farm resources, in particular with a view to sale, involves a high degree of risk, as it is in principle irreversible. Decisions to make a quick exit from farming and to re-allocate resources are thus relatively rare. The slow economic decline model is seen much more frequently, particularly in territories where there is a fragmented agricultural structure (Wojewodzcic and Musiał 2014). In this case, changes to the farm take the form of a series of subsequent divestments that may be planned (a slow and thought-out process of extinction of production and re-allocation of factors of production) or chaotic. In both cases, drawing the process out over time and avoidance of radical decisions leads to wastage of a portion of existing resources and (particularly in the case of chaotic decisions) to devastation of part of the farm's substantial assets. This mechanism may lead to a certain inertia, where the value of the revenue flows derived from asset sales are lower than the costs of the actual sales transaction itself. As a consequence, this prolongs the (non-)existence of the farm, which is no longer considered as a farm as such, as it is no longer involved in agricultural production. This situation can be considered to constitute an incomplete exit from farming, with the farm being transformed into a household with an owner of agricultural land.

On the basis of our own observations and those reported by other authors (Van Dijk 2007; Schnicke et al. 2008; Tocco et al. 2013; Wojewodzcic and Musiał 2014; Fredriksson et al. 2017), it should be noted that in countries with a large proportion of small-scale agriculture (especially in Poland, Romania, Bulgaria and Hungary), the model of slow economic decline is encountered much more frequently than the quick palliative divestment model, occurring primarily in the case of:

- farms with owners who are having difficulty taking up or keeping a job outside farming (in that case, a farm serves as a form of security against job loss),
- farms operated by elderly persons and farms in which successors maintain production (or only ownership) out of respect for the views of their parents who are still alive,
- speculative' farms where ownership of land is a basis for gaining income from subsidies and/or leasing while the farmer is able to retain his legal status,
- cases where there are no potential buyers or no option of alternative use of resources released from the establishment,
- cases where the surplus in the value of the land and capital resources released over the costs of selling the farm is unacceptable for the owners, while the costs of maintaining the farm in the 'incomplete exit' stage are relatively low.

In economic practice, the choice of exit model by small farms is very rarely the result of an economic calculation. Most commonly, it is an intuitive or forced response to the changing external and internal conditions of agricultural production or an element in pursuing non-agricultural plans (aspirations) of the farmer's family members. Even though there may be some research into exit from agricultural activities in the world's primary sources (Higgins 2001; Kuehne 2013), this topic has not been taken into consideration in Central and Eastern European countries. However, assuming that predictions regarding the lack of successors for small farms prove correct, the slow economic decline model will prevail. It should be emphasised that, in the case of countries where small farms are prevalent, there is a very long list of specific barriers to exit from farming, which above all concern post-communist countries, including Bulgaria, Romania, Hungary and Poland. These barriers are the result of historical conditions, including the very fragmented structure of agricultural areas, unsettled questions of ownership and insufficient

supply of labour in non-agricultural professions (Van Dijk 2007; Vidican 2009; Fredriksson et al. 2017). Costs related to the re-allocation of farms' production factors (full exit from agriculture) seem to be a particularly important consideration and may take the form of both transaction costs and the costs of lost profits and opportunities (loss of political rents, including payments within the framework of the CAP, and loss of other economic rents).

BARRIERS TO EXIT FROM FARMING IN LIGHT OF THE THEORY OF TRANSACTION COSTS

The concept of transaction costs (TCs) was made popular by Williamson (1979), though it is considered to have first originated in the work of R. H. Coase (Hardt 2009). These costs constitute an important part of the theory of economics, and the dynamic growth in this approach has led to term taking on a uniquely polysemic character. Arrow (1969: 48) defines them as the 'costs of keeping the economic system in motion,' while according to North and Wallis (1986), they are all the costs associated with making exchanges. Yet another definition is presented by Eggertsson (1990: 14), who views transaction costs from the perspective of ownership rights. He considers TCs to be costs implied by the exchange of ownership rights to resources between entities/contracting parties (Foss and Foss 2005). The latter definition seems to work relatively well in defining transaction costs with reference to issues of exit from farming.

Transaction costs are covered very well in the literature, particularly with reference to re-allocation of farmland. Authors typically distinguish between two groups of costs (Swinnen et al. 2008; Ciaian and Paloma 2011): explicit costs, including administrative expenses related to sales of land, i.e., notarial and administrative fees, as well as various taxes; and implicit costs, mainly comprising costs of gathering information about transaction prices and parties to transactions, costs of contract negotiation and preparation, etc. Most of the costs presented also exist in the case of the sale of farm assets, including buildings, plant and machinery used in agricultural production, though here and, specifically in the case of administrative expenses, the extent of the charges is slightly different (e.g., notarial costs would not usually be incurred for sales of plant and machinery for farm production, etc.).

The magnitude of administrative charges related to the re-allocation of farm assets, particularly farmland, play a significant role in determining structural changes, such as definitive exit from farming (Swinnen et al. 2008). Despite the fact that registration tax is significantly lower (or non-existent) in most new EU Member States, including Poland, Bulgaria, Romania and Hungary, than in the old 15 Member States, once a series of other charges, such as notarial fees, land survey charges and court fees have been taken into account, the overall costs may range from 10 to 30% of the value of the land sold, which is more than in the majority of the original 15 Member States (Ciaian and Kancs 2012). When very small areas of land are sold and ownership title to the land is not properly established, administrative costs may even exceed the value of the transaction itself (Prosterman and Rolfes 1999; Hartvigsen 2014). Apart from administrative expenses, sellers of land and other assets would also usually incur costs of agents and commissions, ranging from 2 to 3% of the transaction value (Ciaian and Kancs 2012).

In the countries studied, apart from relatively high explicit costs, implicit costs are also high, mainly as a result of the process of decollectivisation of farming and extreme agrarian fragmentation (Van Herck et al. 2013). These costs are due to certain imperfections in property rights and high exit costs in cases of unclear land boundaries (Ciaian and Swinnen 2006; Van Dijk 2007). Chaotic decollectivisation of farming in the Central and Eastern European countries studied, extensive restitution of very small agricultural parcels to their former owners, as well as practices resulting from the Napoleonic Code, i.e., equal division of farms between descendants (applicable to the present day in many regions of Poland, Bulgaria and Romania, though not in the Czech Republic, where the farm was given to the oldest son who 'paid off' his siblings), and the resulting lack of clearly established rights of ownership contribute to the high costs of selling farms (Bielik et al. 2005; Musiał 2012). Especially high costs will be incurred for small parcels of farmland, as some expenses are fixed costs irrespective of the value of the transaction (e.g., various charges related to registration and closing the transaction); thus, the smaller the area of land sold, the higher the cost of sale per unit of area (Ciaian 2007). In the Central European countries studied, mainly in regions with poorer conditions of agricultural production, all of the problems referred to above are found to occur (Ciaian and Kancs 2012), albeit to varying degrees.

<https://doi.org/10.17221/233/2016-AGRICECON>

The conversion of farmland to land for non-farming purposes, or the transfer of such land to other parties is an essential condition for a complete exit from farming. Changes of ownership often run into difficulties, due to long-term neglect in the transfer of titles of ownership, i.e., inheritance proceedings not completed, non-existent land and mortgage registers, and omissions in the field of land surveying, i.e., missing milestones, divergence between geodesic maps and the actual on-site conditions, disputes among neighbours (Bielik et al. 2005; Musiał 2012; Van Holst et al. 2014). Activities required to clarify legal status are very time-consuming and costly. In addition, in view of the complexity of many situations and procedures, incomplete documentation, and multiple parties to proceedings who are often scattered across the globe, ultimate success is not guaranteed. Thus, the preparation of property for sale generates costs which exceed the farmer's financial capabilities. Moreover, it may simply prove unreasonable from the point of view of certain economic criteria, particularly if the costs of clarifying legal status or repayments to potential co-owners exceed the actual value of the property (Hartvigsen 2014).

Many studies have shown that the fragmentation of farmland plots in Central and Eastern Europe is a major limiting factor for finding a buyer for farmland (Ciaian 2007; Van Dijk 2004, 2007). The group of potential buyers would be very often limited to owners of neighbouring plots, or entities willing to buy adjacent properties from several landowners together. The advancement of urban development processes in rural areas, mainly along public roads, makes the issue of providing access to farmland even more complex (Van Dijk 2007). This situation results in the generation of further expenses, the emergence of conflicts among neighbours, and very often a decrease in the value of the plots intended for sale or a significant delay in the possibility of selling, with the success of a full exit from farming becoming dependent on the decisions of owners of adjacent land (Bhatta 2010). A search for buyers requires the preparation of a professional sales proposal, and therefore necessarily involves assistance from agents, property surveyors and other advisors. Furthermore, costs of cleaning up the land have an influence on the cost of exit from farming, particularly if the land has remained unused for a certain period (removal of self-seeders, roots, weeds), or if old buildings are located on the property (dismantling) or if there are illegal refuse sites (Wojewodzic 2013).

The magnitude of transaction costs incurred by the seller of farm is also determined by factors such as the frequency of transactions and characteristics of assets (Rørstad et al. 2007). In a vast majority of cases, the sale of a farm is not a recurrent process and is therefore characterised by high uncertainty, and the transaction costs associated with seeking, gathering and processing information, as well as the costs of closing and monitoring the transaction are high, as the seller does not usually have adequate information or experience relating to such transactions. Special attention should be drawn to the characteristics of assets divested or devastated as a consequence of exit from farming. The literature that has undertaken a systematic analysis of this issue (Czyżewski and Grzelak 2011; Stankiewicz 2012), points to four main elements defining the specificity of assets: specific location, physical specificity, dedicated assets and humanitarian assets. Taking this further, it should be noted that both farmland and the majority of fixed assets used on a farm could also be considered to be specific assets. The immovability of land and its spatial character, as well as the fixed positions of buildings, including the residential building which is often located within the borders of the farm, are the factors that strongly restrict the number of potential buyers, the ability to close the transaction and therefore increase the costs associated with the potential transaction. In addition, some fixed assets may be 'dedicated assets' or exhibit so-called 'physical specificity', thus strongly hindering their usage on another farm (or by another business) or even making it impossible (e.g., drive-through silo bins, dunging gutters, storage and drying facilities).

Apart from the transaction costs discussed above, which are typically incurred as expenses, there is also a vast group of costs of lost profits associated with exit from farming, which are more difficult to measure. They are to a large extent related to farmers giving up economic and political rents arising from farm ownership and farmer status. This is quite well explained by the rent-seeking theory developed as part of the institutional approach.

RENT-SEEKING AS A BARRIER TO EXIT FROM FARMING

Research in the field of rent-seeking theory was first pursued by Gordon Tullock and the concept itself was first used by Anne Krueger in 1974 (Wilkin

2005; Congleton et al. 2008). The theory attempts to answer the question of how economic entities, including farms, seek to obtain measurable benefits through the acquisition of public funding or establishment of advantageous conditions for pursuing their economic activities (Pasour 1987; Czyżewski and Brelik 2014). Related literature on the subject indicates that political rents can be acquired legally, if the given entity is lawfully exercising its entitlements, or illegally, if artificial conditions are created to generate a variety of advantages (e.g., through corruption) (Georgiev 2010). This article only covers the former issue.

The agricultural sector is one of the most protectionist industries, which contributes to the ability to gain access to high political rents (Furtan et al. 2008; Furtom et al. 2009). Exiting farming thus means giving up the possibility of acquiring such rents. According to the principle of maximising utility, a farmer that decides to sell/transfer his farm will not only consider his expenses, but also the costs of lost profits and opportunities, including the ability to receive various subsidies, preferential treatment in the field of insurance, etc.

One of the most important political rents acquired by farms is the rent arising from the entitlement to take advantage of budget transfers, including Common Agricultural Policy (CAP) payments and preferential insurance and tax systems. Studies conducted by Breustedt and Glauben (2007) in the old EU Member States and by Raggi et al. (2013) indicate that in regions with relatively high subsidies in the 1st Pillar of the CAP, the scale of exits from farming tends to be lower. Currently, there are no any unambiguous studies in the literature that allow this phenomenon to be verified in Central and Eastern European countries; however, analyses by Davidova et al. (2013) show that direct payments may artificially prolong the existence of some small-scale farms. Among the Central and Eastern European countries under review during the period 2007–2013, the payments were highest in Hungary, slightly lower in Poland and lowest in Romania and Bulgaria. Apart from the amounts of subsidies, the scale of exits from farming is also affected by the criteria for receiving such payments, including cross-compliance requirements and, most of all, the minimum size of the establishment entitling the owner to apply for funding. Among all the countries studied, Poland has clearly the least

stringent requirements related to receiving area-based payments, i.e., a minimum of 1 hectare of farmland consisting of parcels with an area of > 0.1 ha, while the minimum parcel size in Romania and in Hungary is 0.3 ha and 0.25 ha, respectively (Davidova et al. 2013). In general, in most countries where small farms are prevalent, minimum parcel sizes are under 0.5 ha. Easy access to area-based payments for small farms is one of the key barriers to exit from agriculture (Hubbard 2013).

Exit from farming may also involve the withdrawal of insurance and tax privileges. Out of the Central and Eastern European countries studied, this mainly applies to Poland, and, to a much lesser extent, to Hungary. There is a separate social insurance system for farmers in Poland and, in principle, owners of at least 1 hectare of land¹ are entitled to take advantage of highly preferential rates of social insurance payments (Potori et al. 2014). For farms < 50 ha, the monthly rate of pension and disability insurance and sickness insurance contributions per person was approx. €40 in 2015, while entrepreneurs have to pay ca. €250 and employees earning the minimum wage pay ca. €80. These privileges are also available to farmers running small businesses, which makes the system prone to abuse (Dacko and Dacko 2014). Farmers in Hungary are part of the general social security system, which is less beneficial than that in Poland, yet still offers certain privileges for small-sized farms. Entities with revenue excluding subsidies of less than €26.6 have to pay a 4% health care contribution in kind on 20% of their revenue from the previous year, and a pension contribution of 10% of the minimum wage. Unlike larger individual farms and businesses, they are not obliged to pay 27% social contribution tax (Potori et al. 2014). In the remaining countries, i.e., in Bulgaria and Romania, farmers are part of the general social security system and do not have any such privileges. Moreover, in both these countries only a small group of producers are covered by social security, as it is only mandatory for registered farmers in Bulgaria (Pension insurance ... 2011) and is voluntary in Romania, operating on the same terms as those applicable to business operators (Cenar 2011, Social security ... 2003). There are certain preferences in the Hungarian insurance system for farm owners; however, there is no research to verify its impact on exit from farming. The situation is slightly different

¹Another option available in Poland is insurance upon request for agricultural establishments < 1 ha. A farm owner only has to declare that the farm is his regular source of income.

<https://doi.org/10.17221/233/2016-AGRICECON>

in Poland where it is often claimed that the highly preferential insurance system places strong restrictions on structural transformation (Podstawka 2010; Musiał and Wojewodzic 2014).

One type of rent that seems to have a negative effect on farms exiting agriculture is the so-called capital rent (Sikorska 2013; Musiał and Wojewodzic 2014) arising from the title to land. Ownership of land in a particularly attractive location is not only a source of prestige in the local community and an economic safeguard for the owner and his family members, but also a factor contributing to the growth of value of that capital. The market price of land increases during a construction boom but at the same time it would not usually decrease during a crisis. Farmers who own small farms in the countries studied, particularly in suburban areas but also in other economic zones where there is a high demand for land, are not willing to sell their land as they assume that the price of land will continue to grow. Similar conclusions have been drawn, among others, by Kilian and Salhofer (2008), Molnár and Vandenbroucke (2010), Ciaian and Kancs (2012) and Musiał and Wojewodzic (2014). Capital rent can also be an important factor in typical farming areas, and above all in those with very favourable natural conditions, as the prices are expected to rise once foreign investors are given the opportunity to buy land. Some authors point out that these processes are already taking place not only in Bulgaria and Romania (Silasi 2013), but also in Hungary and in Poland (Bielik et al. 2005).

Another form of rent available to farm owners is planning rent (a form of location rent) that may arise as a consequence of adoption of zoning plans. Land owners expect prices to rise as a consequence of reclassification of land and its sale for non-agricultural purposes, such as housing (Radzinski 2012; Musiał and Wojewodzic 2014). Such rents can be drawn upon in all the countries, particularly in regions situated in the vicinity of towns and cities, and in locations of special natural value.

Apart from the political rents specified above, economic rents are received by farms as well, resulting from the use of production resources to manufacture and provide goods and services. Thus, exit from farming implies not only giving up sources of income from agricultural activity, but also having to purchase food that used to be produced by the farmer on his own farm.

In analysing the causes of slow structural changes, including the full release of production resources,

social factors are often emphasised, i.e., the low level of education of farm owners, their attachment to tradition and reluctance to change (Goetz and Debertin 2001; Calus and Van Huylenbroeck 2008; Viira et al. 2009). In addition, it should be emphasised that farmers in post-socialist countries belong to a social group which is reluctant to make any radical strategic changes in its activities, with a particular reluctance to sell their land. The resistance to social and professional change typical of that social group has enabled farmers to survive on their land through the historical turmoil that has gone on around them (Halamska 2013). Emotional as well as economic factors ('you only sell land once') make it difficult for farmers to make the decision to exit farming, even under conditions in which proceeding with agricultural activities is not economically viable (Van Dijk 2007).

Poverty is a relatively high barrier to the complete exit from agriculture for farming families, mainly in Romania and Bulgaria, but also in the remaining countries too. Farms, even if they do not bring any income, still provide their owners with some form of protection from extreme poverty. According to Hubbard (2013), operating a farm in such countries as Bulgaria and Romania allows poor farm households to survive, with products originating from their own farms (used or sold through informal channels) accounting for as much up to 50% of their incomes. In this case, extreme poverty constitutes a barrier to structural transformations.

CONCLUSIONS

Dynamic processes of structural change, including a decrease in the number of small farms, have been observed in Central and Eastern European countries for at least 25 years. These tendencies are considered positive, yet it is often overlooked that a major part of these farms discontinue agricultural production in the formal sense only, while the farmland – in particular in regions with a fragmented agrarian structure – is retained by the entities that used to be the productive entities until recently. The explanation for this phenomenon can be sought not only in historical, cultural and institutional considerations specific to Central and Eastern Europe, but also in economic calculations, including the high costs of exit from farming and land owners' pursuit of economic rents.

When it comes to discussing barriers to exit from farming, the primary reasons given are usually low

<https://doi.org/10.17221/233/2016-AGRICECON>

efficiency of production and a lack of capital on the part of potential buyers. Lack of financial resources on the part of sellers continues to be overlooked, as does their need to incur expenses related to the preparation and closing of transactions involved in the sale of existing resources (the actual transaction costs of liquidating the farm). The presence of transaction costs recognised as expenses, together with the emotional costs and costs of alternatives, which are difficult to evaluate and estimate, should be considered the most important barrier to complete liquidation of a farm. The actual transaction costs incurred are very often the factor that delays or even prevents a land owner from making a full exit from farming, causing the process to stop at discontinuation of production. In this context, the costs of clarifying the legal and geodesic status of the land are particularly significant, as are the costs of cleaning up the land and costs of seeking a buyer. For small farms or small plots of agricultural land, the ratio of actual transaction costs (expenses) to the value of the property intended to be the object of transaction is particularly disadvantageous. In certain extreme cases, transaction costs may exceed potential sales revenues, which may to a certain extent explain the reluctance of small farm owners to sell off their land.

The seeking of rents by farmers is also essential in delaying their decision to exit farming completely. With the ability to draw benefits from the ownership of land (area-based payments, lease rent, access to cheaper social security, tax privileges), farmers are not interested in selling their farms or granting long-term leases. This is because the expected benefits from owning land are worth more than the amounts that can be gained from selling the farm. In countries where small farms are prevalent, and in Poland in particular, the institutional framework, including very significant privileges for land owners, delays transfer of production factors to developing farms. Thus, political rents, along with transaction costs, should be considered to be the primary factors in delaying structural changes in general, and exit from farming in particular.

REFERENCES

- Abelairas-Etxebarria P., Astorkiza I. (2012): Farmland prices and land-use changes in periurban protected natural areas. *Land Use Policy*, 29: 674–683.
- Akerlof G.A. (1970): The market for “lemons”: quality uncertainty and the market mechanism. *Quarterly Journal of Economics*, 84: 488–500.
- Allen R.C. (1999): Tracking the agricultural revolution in England. *The Economic History Review*, 2: 209–235.
- Arrow K.J. (1969): *Essays in the Theory of Risk-Bearing*. Markham, Chicago.
- Arrow K.J. (1994): Methodological individualism and social knowledge. *The American Economic Review*, 84: 1–9.
- Bidwell P.W. (1921): The agricultural revolution in New England. *The American Historical Review*, 26: 683–702.
- Bielik P., Horska E., Turcekova N. (2005): Some aspects of land market in Central and Eastern European countries: focus on Slovakia. *Agricultural Economics – Czech*, 51: 335–341.
- Bhatta B. (2010): Causes and consequences of urban growth and sprawl. In: *Analysis of Urban Growth and Sprawl from Remote Sensing Data*. Springer, Berlin Heidelberg: 17–36.
- Boehlje M. (1973): The entry-growth-exit processes in agriculture. *Southern Journal of Agricultural Economics*, 5: 23–36.
- Breustedt G., Glauben T. (2007): Driving forces behind exiting from farming in Western Europe. *Journal of Agricultural Economics*, 58: 115–127.
- Calus M., Van Huylenbroeck G. (2008): The succession effect within management decisions of family farms. In: *12th Congress of the European Association of Agricultural Economists – EAAE 2008*.
- Cenar I. (2011): The pension system for farmers in Romania facts and perspectives. *Romanian Economic Business Review*, 6: 27–35.
- Ciaian P. (2007): Land reform and productivity gains with multiple market imperfections. *EERI Research Paper Series No. 1/2007, Economics and Econometrics Research Institute (EERI), Brussels*.
- Ciaian P., Swinnen J. (2006): Land market imperfections and agricultural policy impacts in the new EU member states: a partial equilibrium analysis. *American Journal of Agricultural Economics*, 88: 799–815.
- Ciaian P., Pokrivcak J., Drabik D. (2009): Transaction costs, product specialisation and farm structure in Central and Eastern Europe. *Post-Communist Economies*, 21: 191–201.
- Ciaian P., Kancs D. (2012): The capitalization of area payments into farmland rents: micro evidence from the new EU member states. *Canadian Journal of Agricultural Economics*, 60: 517–540.
- Ciaian P., Paloma S.G. (2011): Valuation of EU agricultural landscape. *EERI Research Paper Series No. 20/2011*,

<https://doi.org/10.17221/233/2016-AGRICECON>

- Economics and Econometrics Research Institute (EERI), Brussels.
- Congleton R.D., Hillman A.L., Konrad K.A. (2008): Forty years of research on rent seeking: an overview. In: *The Theory of Rent Seeking: Forty Years of Research 1*. Springer-Verlag: 1–42, Heidelberg.
- Coppola A. (2004): An economic perspective on land abandonment processes. Working paper No. 1/2004 presented at the AVEC Workshop on “Effects of Land Abandonment and Global Change on Plant and Animal Communities”. Anacapri, Oct 11–13, 2004.
- Czyżewski B., Grzelak A. (2011): The Practical and Theoretical Determinants of Transaction Costs – the Case of Food Industry in Poland in 1992–2009. SGH, Warsaw: 185–206.
- Czyżewski B., Brelik A. (2014): Political rents in the European Union’s agriculture. *Management*, 18: 191–203.
- Dacko M., Dacko A. (2014): Improving the area structure of Polish agriculture – a systemic approach. *Problems of Small Agricultural Holdings*, 2: 23–37.
- Davidova S.M., Bailey A., Dwyer J., Erjavec E., Gorton M., Thomson K. (2013): Semi-subsistence farming: value and directions of development. Directorate-General for Internal Policies Policy Department B: Structural and Cohesion Policies, European Parliament, Brussels.
- Davidova S., Thomson K.J. (2014): Family farming in the enlarged EU: Concepts, challenges and prospects. In: 142nd Seminar EAAE Seminar Growing Success? Agriculture and rural development in an enlarged EU, Corvinus University of Budapest, Budapest, May 29–30, 2014.
- Edson S. (2005): *The Industrial Revolution*. Castellon.
- Eggertsson B. (1990): *Economic Behavior and Institutions: Principles of Neoinstitutional Economics*. Cambridge Surveys of Economic Literature, Cambridge University Press.
- Eurostat (2016): Available at <http://ec.europa.eu/eurostat/data/database> (accessed Nov 3, 2016).
- Fields G. (1999): Urbanization and the transition from agrarian to industrial society. *Berkeley Planning Journal*, 13: 102–128.
- Foss K., Foss N.J. (2005): Resources and transaction costs: how property rights economics furthers the resource –based view. *Strategic Management Journal*, 26: 541–553.
- Fredriksson L., Bailey A., Davidova S., Gorton M., Traikova D. (2017): The commercialisation of subsistence farms: Evidence from the new member states of the EU. *Land Use Policy*, 60: 37–47.
- Furtan W.H., Jensen M.S., Sauer J. (2008): Rent seeking and the Common Agricultural Policy: Do member countries free ride on lobbying? In: 107th EAAE Seminar Model- ing of Agricultural and Rural Development Policies, Sevilla, Jan 29–Feb 1, 2008.
- Furtom H., Sauer J., Jensen M.S. (2009): Free-riding on rent seeking – an empirical analysis. *Public Choice*, 140: 479–500.
- Gale H.F. (2003): Age-specific patterns of exit and entry in U.S. farming; 1978–1997. *Review of Agricultural Economics*, 25: 168–186.
- Gale H.F. (1990): Economic analysis of farmer participation in the dairy termination program in North Carolina and Virginia. *Southern Journal of Agricultural Economics*, 22: 123–131.
- Georgiev M. (2010): “Rent seeking” in agricultural contracts in the country. *Trakia Journal of Sciences*, 8: 230–233.
- Goetz S.J., Debertain D.L. (2001): Why farmers quit: a country-level analysis. *American Journal of Agricultural Economics*, 83: 1010–1023.
- Glauben T., Tietje H., Weiss C.R. (2002): Farm succession plans and actual behaviour: evidence from a household survey and census data. In: 2002 Annual meeting, July 28–31, Long Beach, No. 19691, American Agricultural Economics Association (New Name 2008: Agricultural and Applied Economics Association).
- Gorynia M. (1999): The firm – the new institutional approach. *Ekonomista*, 6: 777–790.
- Grubbström A. (2011): Emotional bonds as obstacles to land sale – attitudes to land among local and absentee landowners in Northwest Estonia. *Landscape Urban Planning*, 99: 31–39.
- Grykień S. (2005): Transformacja rolnictwa w krajach Europy Środkowo-Wschodniej. *Przegląd Geograficzny*, 77: 213–233.
- Halamska M. (2013): Live in rural areas: lifestyle factors. *Village and Agriculture*, 159: 28–42.
- Hardt L. (2009): The history of transaction cost economics and its recent developments. *Erasmus Journal for Economics and Philosophy*, 2: 29–51.
- Hartvigsen M. (2013): Land reform in Central and Eastern Europe after 1989 and its outcome in form of farm structures and land fragmentation. *Land Tenure Working Paper No. 24*, FAO.
- Hartvigsen M. (2014): Land reform and land fragmentation in Central and Eastern Europe. *Land Use Policy*, 36: 330–341.
- Higgins V. (2001): Governing the boundaries of viability: economic expertise and the production of the ‘low-income farm problem’ in Australia. *Sociologia Ruralis*, 41: 358–375.
- Hodgson G.M. (2007): Meanings of methodological individualism. *Journal of Economic Methodology*, 14: 211–226.

<https://doi.org/10.17221/233/2016-AGRICECON>

- Holtslag-Broekhof S.M., Beunen R., van Marwijk R., Wiskerke J.S.C. (2014): "Let's try to get the best out of it" understanding land transactions during land use change. *Land Use Policy*, 41: 561–570.
- Hubbard C. (2013): Case study Romania. In: Davidova S., Bailey A., Dwyer J., Erjavec E., Gorton M., Thomson K. (eds): *Semi-subsistence Farming – Value and Directions of Development*. European Parliament Directorate-General For Internal Policies IP/B/AGRI/IC/2012-65, Publications Office, Brussels, Belgium.
- Hubbard M. (1997): The 'New Institutional Economics' in agricultural development: insights and challenges. *Journal of Agricultural Economics*, 48: 239–249.
- Kanianska R., Kizeková M., Nováček J., Zeman M. (2014): Land-use and land-cover changes in rural areas during different political systems: A case study of Slovakia from 1782 to 2006. *Land Use Policy*, 36: 554–566.
- Kilian S., Salhofer K. (2008): Single payments of the CAP. Where do the rents go? *Agricultural Economics Review*, 9: 96–106.
- Kimhi A., Bollman R. (1999): Family farm dynamics in Canada and Israel: the case of farm exits. *Agricultural Economics*, 21: 69–79.
- Koell A.M. (1998): The agrarian question in Eastern Europe – some answers from the Baltic region. *Uneven Development in Europe*, 39: 201–229.
- Kopsidis M., Wolf N. (2012): Agricultural productivity across Prussia during the industrial revolution: a Thünen perspective. *The Journal of Economic History*, 72: 634–670.
- Koteva N., Basheva K., Risina M., Mladenova M. (2009). Assessment of impact of EU CAP on farms. *Agricultural Economics and Management*, 3: 16–25.
- Kuehne G. (2013): My decision to sell the family farm. *Agriculture and Human Values*, 30: 203–213.
- Levie J., Lichtenstein B.B. (2010): A terminal assessment of stages theory: introducing a dynamic state approach to entrepreneurship. *Entrepreneurship Theory and Practice*, 34: 317–350.
- Lobley M., Baker J.R., Whitehead I. (2010): Farm succession and retirement: some international comparisons. *Journal of Agriculture, Food Systems and Community Development*, 1: 49–64.
- Maart S.C., Musshoff O., Odening M., Schade C. (2011): Closing down the farm: an experimental analysis of disinvestment timing. In: *EAAE 2011 Congress Change and Uncertainty. Challenges for Agriculture, Food and Natural Resources*, Zurich, Aug 30–Sept 2, 2011.
- Mishra A.K., El-Osta H.S., Johnson J.D. (2004): Succession in family farm business: empirical evidence from the US farm sector. In: *AAEA Meeting in Denver*, Aug 1–4, 2004.
- Molnár A., Vandembroucke P. (2010): Structural and land use change of farms in the periurban area of Budapest – case study of Veresegyház subregion. *Studies in Agricultural Economics*, 112: 83–96.
- Musiał W. (2009): Rozważania nad upadłością gospodarstw rodzinnych w Polsce. *Więś i Rolnictwo*, 142: 44–61.
- Musiał W. (2012): Determinants of agricultural land management in the crushed agrarian regions. In: Rosner A. (ed.): *The Development of Agriculture and Rural Areas in Poland. Spatial and Regional Aspects*. IRWiR PAN, Warsaw: 179–206.
- Musiał W., Wojewodzic T. (2014): Agrarian transformation barriers in Polish agriculture – seeking innovative solutions. In: Czyżewski A., Klepacki B. (eds): *Problems of Development of Agriculture and Food Economy in the First Decade of Polish Membership in the European Union*, PTE, Warsaw.
- Needham B., Segeren A., Buitelaar E. (2011): Institutions in theories of land markets: illustrated by the Dutch market for agricultural land. *Urban Studies*, 48: 161–176.
- North D., Wallis J.J. (1986): Measuring the transaction sector in the American economy 1870–1970. In: Engerman S.L., Gallman R.E. (eds): *Long Term Factors in American Economic Growth*. University of Chicago Press, Chicago.
- North D.C. (1990): *Institutions, Institutional Change and Economic Performance*. Cambridge University Press.
- North D.C. (2008): Institutions and the performance of economies over time. In: *Handbook of New Institutional Economics*, Springer Berlin Heidelberg: 21–30.
- Pasour Jr., E.C. (1987): Rent seeking: Some conceptual problems and implications. *The Review of Austrian Economics*, 1: 123–143.
- Peel D., Berry H.L., Schirmer J. (2016): Farm exit intention and wellbeing: A study of Australian farmers. *Journal of Rural Studies*, 47: 41–51.
- Peerlings J.H., Ooms D.L. (2008): Farm growth and exit: consequences of EU dairy policy reform for Dutch dairy farming. In: *12th EAAE Congress People, Food and Environments: Global Trends and European Strategies*, Gent, Aug 26–29, 2008.
- Pension Insurance in the Republic of Bulgaria* (2011): Problems and Necessary Reforms, Sofia, Feb, 2011.
- Petrick M. (2008): Theoretical and Methodological Topics in the Institutional Economics of European Agriculture. With applications to farm organisation and rural credit arrangements. *Studies on the Agricultural and Food Sector in Central and Eastern Europe*, No. 45. Available at <http://nbn-resolving.de/urn:nbn:de:gbv:3:2-10779>
- Podstawka M. (2010): Myths and truths about the Agricultural Social Insurance Fund. *Insurance in agriculture. Materials and Studies*, 37: 7–15.

<https://doi.org/10.17221/233/2016-AGRICECON>

- Potori N., Chmieliński P., Fieldsend A.F. (2014): Structural changes in Polish and Hungarian agriculture since EU accession: Lessons learned and implications for the design of future agricultural policies. Research Institute of Agricultural Economics, Budapest.
- Prosterman R.L., Rolfes L. (1999): Agricultural Land Markets in Lithuania, Poland, and Romania: Implications for Accession to the European Union. Rural Development Institute, Seattle.
- Radzinski A. (2012): Real estate taxation in Poland and its influence on spatial development. In: Schrenk M., Popovich V.V., Zeile P., Elisei P. (eds): REAL CORP 2012: Remixing the City – Towards Sustainability and Resilience, Schwechat, May 14–16, 2012.
- Raggi M., Sardonini L., Viaggi D. (2013): The effects of the Common Agricultural Policy on exit strategies and land re-allocation. *Land Use Policy*, 31: 114–125.
- Rørstad P.K., Vatn A., Kvakkestad V. (2007): Why do transaction costs of agricultural policies vary? *Agricultural Economics*, 36: 1–11.
- Samsura D.A.A., van der Krabben E., van Deemen A.M.A. (2010): A game theory approach to the analysis of land and property development processes. *Land Use Policy*, 27: 564–578.
- Schnicke H., Happe K., Sahrbacher C., Kellermann K. (2008): Exploring the role of succession patterns in Central and Eastern European's dualistic farm structures. In: Proceedings of the 107th EAAE Seminar Modelling of Agricultural and Rural Development Policies, Sevilla, Jan 29–Feb 1, 2008.
- Sikorska A. (2013): Obrót ziemia a przemiany agrarne w indywidualnym rolnictwie. *Zagadnienia ekonomiki rolnej*, 334: 8–21.
- Silasi G. (2013): The liberalization of the land market in Romania. Economical, social juridical and political implications. *Journal "Annals – Economy Series"*, 16: 21–29.
- Simon H.A. (1959): Theories of decision-making in economics and behavioral science. *The American Economic Review*, 49: 253–283.
- Smithers J., Johnson P. (2004): The dynamics of family farming in North Huron County, Ontario. Part I. Development trajectories. *Canadian Geographer/Le Géographe canadien*, 48: 191–208.
- Social security systems and demographic developments in agriculture in the CEE candidate countries (2003). IAMO, July 2003.
- Stam J.M., Dixon B.L. (2004): Farmer Bankruptcies and Farm Exits in the United States, 1899–2002. US Department of Agriculture, Economic Research Service, Washington, DC.
- Stankiewicz W. (2012): Institutional Economics of Outline of Lecture. PWSBAiTK, Warsaw.
- Suess-Reyes J., Fuetsch E. (2016): The future of family farming: A literature review on innovative, sustainable and succession-oriented strategies. *Journal of Rural Studies*, 47: 117–140.
- Swain N. (2013): Agriculture 'east of the Elbe' and the common agricultural policy. *Sociologia Ruralis*, 53: 369–389.
- Swain N. (2016): Eastern European rurality in a neo-liberal, European Union World. *Sociologia Ruralis*, 56: 574–596.
- Swinnen J., Ciaian P., Kancs A. (2008): Study on the Functioning of Land Markets in the EU Member States under the Influence of Measures applied under the Common Agricultural Policy. Unpublished Report to the European Commission, Centre for European Policy Studies, Brussels.
- Téglási A. (2013): The protection of arable land in the basic law of Hungary with respect to the expiring moratorium of land acquisition in 2014. *Acta Universitatis Brunensis Juridica*, 442: 2442–2465.
- Theesfeld I. (2003): Constraints for collective action in a transitional economy: the case of Bulgaria's irrigation sector. *World Development*, 32: 251–271.
- Tocco B., Bailey A., Davidova S. (2013): Determinants to leave agriculture and change occupational sector: Evidence from an enlarged EU. In: International Agricultural Trade Research Consortium's (IATRC's) 2013 Symposium: Productivity and its Impacts on Global Trade, June 2–4, 2013, Seville.
- Van Dijk T. (2004): Land consolidation as Central Europe's panacea reassessed. In: Modern Land Consolidation: Symposium in Volvic (Clermont-Ferrand), Sep 10–11, 2004.
- Van Dijk T. (2007): Complications for traditional land consolidation in Central Europe. *Geoforum*, 38: 505–511.
- Van Dijk T., Beunen R. (2009): Laws, people and land use: A sociological perspective on the relation between laws and land use. *European Planning Studies*, 17: 1797–1815.
- Van Herck K., Swinnen J., Vranken L. (2013): Direct payments and land rents: evidence from new member states. Factor Markets Working Document No. 62, Centre for European Policy Studies. Available at <https://ssrn.com/abstract=2329931>
- Van Holst F., Eberlin R., Onega Lopez F. (2014): LANDNET and land market issues in Europe. *ZfV-Zeitschrift für Geodäsie, Geoinformation und Landmanagement*, 3: 183–189.
- Van der Krabben E., Buitelaar E. (2011): Industrial land and property markets: market processes, market institu-

<https://doi.org/10.17221/233/2016-AGRICECON>

- tions and market outcomes: the Dutch case. *European Planning Studies*, 19: 2127–2146.
- Vidican G. (2009): Assessing land reallocation decisions during transition in Romania. *Land Use Policy*, 26: 1080–1089.
- Viira A.H., Poeder A., Vaernik R. (2009): The factors affecting the motivation to exit farming – evidence from Estonia. *Food Economics – Acta Agriculturae Scandinavica, C*, 6: 156–172.
- Weller S.A., Smith E., Pritchard W. (2013): Family or Enterprise? What shapes the business structures of Australian farming? *Australian Geographer*, 44: 123–136.
- Wilkin J. (2005): Public choice theory – homo economicus in politics. In: Wilkin J. (ed.): *Public Choice Theory. Introduction to the Economic Analysis of Policies and the Functioning of the Public Sphere*, SCHOLAR, Warsaw.
- Williamson O.E. (1979): Transaction-cost economics: the governance of contractual relations. *Journal of Law and Economics*, 2: 233–261.
- Wojewodzic T. (2013): Divestments and economic fall of farms – attempt at terminological differentiation. *Acta Scientiarum Polonorum, Oeconomia*, 12: 101–110.
- Wojewodzic T., Musiał W. (2014): Wykorzystanie dywestycji w procesie likwidacji gospodarstwa rolniczego. In: Dec P. (ed.): *Niepewność funkcjonowania przedsiębiorstw. Bankructwa, restrukturyzacja, likwidacja*. SGH, Warsaw: 215–226.
- Yang D.T., Zhu X. (2013): Modernization of agriculture and long-term growth. *Journal of Monetary Economics*, 60: 367–382.
- Zagata L., Lostak M. (2013): *Farming transitions: pathways towards regional sustainability of agriculture in Europe*, Final Report, FP7 KBBE 2010-4.

Received July 27, 2016

Accepted February 21, 2017

Published online March 28, 2018