This article provides a micro-analysis of land market development after two decades of Albanian transition. We use data from a survey conducted in four Albanian villages during May 2013. The results indicate that land markets are highly rigid with almost no structural changes occurring over the last two decades. Sale markets are almost non-existent owing to formal and informal regulations and prevalence of subsistence farming in rural Albania. The status quo established by the 1991 land reform determines the present ownership structure. Rental markets are more sizable but, owing to property rights insecurity and monitoring problems of absentee landowners, the vast majority of rental arrangements are between family relatives.

Countries in Central and Eastern Europe (CEE) have implemented massive land reform over the past decades. The land reform was a part of the transition process from the communist state-controlled system to a market-driven economy. Albania implemented one of the most radical land reforms among CEE countries. Under the communist regime land was state or collectively owned and was used by large cooperative and state farms. The land reform implemented in 1991 aimed to transfer property rights from state and collective ownership to private individuals. This was a key prerequisite for allowing land markets to develop and thus to stimulate agricultural productivity growth and improve the food security of the rural population (Swinnen 1999, de Waal 2004). However, while privatisation stimulated rural households to expand production and to use resources more efficiently, it created one of the most fragmented land structures among CEE countries. The 1991 land reform distributed land to farm labour, whereas former landowners before collectivisation in 1945 often claim and occupy land to the present day. This created uncertainty of property rights, potentially constraining the functioning of land markets (Lusho and Papa 1998, Cungu and Swinnen 1999, Swinnen 1999, Deininger et al. 2012).

Efficient land transactions and a functioning land market are fundamental for rural development. If land markets operate efficiently they play an important role in economic development and growth. Land markets have the potential to increase access to capital and technology and improve productivity (Swinnen and Vranken 2007).

The main objective of this article is to document the functioning of land markets in Albania. Drawing on a set of empirical evidence, the article provides a picture of the current state of land markets after two decades of transition. We base our analysis on a survey conducted in four Albanian villages during May 2013.

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Albania represents a particularly interesting case for studying land markets. Agriculture still represents an important share in the overall economy, contributing 21% to GDP and accounting for 58% of employment in the country (World Bank 2013). The transition from planned to market economy in the early 1990s provides a natural experiment in identifying structural changes that took place in land markets. Furthermore, land was distributed to rural households who used to work in the collective and state farms, which on one hand generated a stimulus for land markets but on the other hand generated uncertainties and insecurity of property rights due to competing land ownership claims from former owners.

**Literature review**

Land markets and their functioning play a crucial role in shaping development and structural change in the agricultural sector (Kellermann et al. 2008). A well-functioning land market is a key prerequisite for sustainable rural development. Land sales and rental markets facilitate structural change in agriculture through the transfer of land from less to more efficient farmers. The implications of the functioning of land markets and land institutions for agricultural performance and efficiency have been analysed extensively in development economics and agricultural economics (Diaz 2000, Deininger and Feder 2001, Ciaian and Swinnen 2006). Three main areas were researched in the literature relating to land markets. The first relates to conditions necessary for land markets to emerge and operate efficiently (Deininger and Feder 2001, Hurrelmann 2002, Swinnen and Vranken 2007, Ciaian et al. 2012). The second issue is linked to land reform choices and land policies (Swinnen 1999, Diaz 2000, Griffin et al. 2002, Wandel et al. 2011). The third concerns the debate about optimal farm size and the efficiency of land use (Allen and Lueck 2002, Le Mouël 2005, Lerman and Sutton 2008, Ciaian et al. 2009, Kancs and Ciaian 2010). All three factors are important in determining the structure and functioning of land markets. While land reform and land policies establish the institutional framework, the actual institutions put in place and their enforcement determine the conditions under which the land markets operate. All these factors ultimately affect the efficiency of the agricultural sector and determine the path of farm structural development (Wegren 2003, Deininger et al. 2012).

There are several conditions necessary for land markets to emerge and to operate efficiently (Deininger and Feder 2001). The key factor affecting land markets is the security of property rights. With insecure and poorly defined property rights, markets may fail because individuals may fail to realise the return from land. Insecure property rights generate implicit and explicit costs to individuals associated with the protection and capture of rights to the land. Further, in an environment with well-defined and secure property rights, land may be used as collateral and improve farmers’ access to credit, which would stimulate farm investment and lead to improved agricultural productivity (Feder 1985, Ciaian and Swinnen 2009).

Land ownership insecurity leads to high transaction costs. Transaction costs in the land market prevent efficiency-enhancing land exchanges. Transaction costs include costs of enforcing property rights. According to Ciaian and Swinnen (2006) transaction costs in land exchange can be very substantial in post-communist countries. These include bargaining costs, costs of enforcing the right of land withdrawal from corporate farms, costs related to asymmetric information, co-ownership and unclear boundary definition, and costs related to unknown owners (Dale and Baldwin 2000, Lerman et al. 2004, Swinnen and Vranken 2007).
Where there are high transaction costs and insecure property rights, trust among market participants will be crucial in determining whether land exchanges take place (Bliss and Stern 1982, Fafchamps 2004, Holden and Ghebru 2006). According to Holden and Ghebru (2006), if transaction costs are substantial the relationship between landowner and tenant will drive rental exchanges. Land exchanges will take place mainly between individuals who have a kinship relationship. Landowners will prefer to rent out land to kin rather than non-kin tenants in order to prevent the potential loss of land if property rights are insecure. Kin-to-kin exchanges may circumvent complete market failure but they do not fully eliminate market inefficiencies caused by insecure property rights.

Land reform in Albania

During the last century three radical land reforms were implemented in Albania: (i) land reforms before collectivisation (before World War II), (ii) collectivisation and (iii) the land reform of 1991 (de-collectivisation). These reforms produced contrary effects on farming systems and land structures. The first reform aimed to redistribute land from big landlords to rural peasants as a means to correct the huge ownership inequality inherited from the Ottoman Empire. However, these reform attempts only partially succeeded in redistributing land; most of the land remained under the control of big landowners. Following other communist regimes in the region, Albania implemented large-scale collectivisation and nationalisation of land after World War II. By 1976 most land was in state or collective ownership and agricultural production was organised in large farming conglomerates (cooperatives and state farms) with an average size of more than 1000 hectares.

The collectivisation led to the collapse of the Albanian economy, including the agricultural sector. By 1985 there was serious shortage of basic food, causing widespread discontent among the general population (Cungu and Swinnen 1999, Wheeler and Waite 2003). Food shortage and inefficiencies associated with state and collective ownership of assets generated pressure for de-collectivisation and introduction of private property after the fall of communism (de Waal 2004).

Land reform of 1991

The aim of the 1991 land reform was to amend social injustice created by the previous regime and to address the food shortage problem. At the same time, the aim was to avoid re-establishing the pre-1945 large estates (Swinnen 1999, Cungu and Swinnen 1999, Hartvigsen 2013).

The main principle of land privatisation under the 1991 land reform (also referred to as Law 7501) was to distribute land among rural inhabitants based on an egalitarian principle. Land was divided on an equal per capita basis among all persons associated with the collective and state farms. The head of the household was recognised as the official owner of the land. The reform was implemented at the village level where a land distribution commission elected by village residents was responsible for carrying out the distribution process. The commission initially defined the size of land parcels that were to be distributed; the number of household members then determined the total area of agricultural land that the household would be allocated. The distribution of plots took into account land quality, land type (e.g. arable land, olive plantations) and location. Ultimately, land parcels were distributed in different sizes, qualities and places,
usually scattered throughout the village. At the end of the distribution process households owned different areas and types of land in different zones, such as arable land, orchards, vineyards and olive trees. Initially the agricultural land distributed was not allowed to be sold. This moratorium was lifted in 1998 (Cungu and Swinnen 1999, Hartvigsen 2013).

In about half of rural areas the land reform was conducted in line with the legislation. However, in the other half, mainly in the northern part of Albania and in mountainous areas in the central part of the country, the agricultural land was distributed to former owners. These distributions seem to have been officially accepted even though the procedure was not fully consistent with the land reform legislation adopted (Hartvigsen 2013).

In 1993 legislation was adopted that granted former owners (the pre-1945 landowners) the right to claim restitution or to be compensated for lost agricultural land of up to 100 ha. By then, however, most of the land had already been distributed to farm workers. There are estimated to be around 41,000 claims for restitution and compensation which remain largely unsolved due to changing legislation as well as a lack of available land and financial resources. In 2005 it was estimated that the financial resources necessary for compensation of former owners could amount to USD5 billion (Hartvigsen 2013).

**Outcomes of the land reform**

One of the consequences of the 1991 reform is land ownership fragmentation and property rights insecurity. Before the implementation of the 1991 land reform land was controlled by 420 collective and state farms with more than 1000 hectares per farm. The reform distributed the land to 480,000 households in approximately 1.8 million small parcels averaging 0.25 hectares per parcel. This process resulted in the emergence of small farms in Albania (on average 1.25 ha per farm) but also led to fragmentation of the land use (an average of five plots per farm) and land ownership (among 480,000 households) (Table 1) (Cungu and Swinnen 1997, Swinnen 1999, Wheeler and Waite 2003, de Waal 2004, Deininger et al. 2012, Hartvigsen 2013).

The legal and institutional failures in establishing property laws after 1991 generated space for illegal occupation and conflicts over land. There is a high incidence of land conflicts in Albania caused by, among other things, overlapping land boundaries, clashes between new and former owners and disputes over access roads. Land distribution to farm workers excluded the majority of former owners’ claims for restitution of land. The legal and institutional framework failed to secure property rights to distributed land.

Table 1. Land indicators in Albania, 2001 and 2011.

| Fragmentation indicators                  | Unit | 2001  | 2011  |
|------------------------------------------|------|-------|-------|
| Average farm size                        | Ha   | 1.25  | 1.26  |
| Average plot size                        | Ha   | 0.25  | 0.27  |
| Average number of parcels                | Number | 3–4  | 5     |
| Private farms with <1 hectare            | %    | 42    | 41    |
| Total number of farms                    | Million | 0.48 | 0.35  |
| Total number of parcels                  | Million | 1.8  | n/a   |

Source: Own elaboration based on data from Sabates-Wheeler (2002) and MAFCP (2011).
and in several instances illegal occupation took place by former owners who claimed their ownership rights over land that had been expropriated during the communist period (Wheeler and Waite 2003, Zhllima and Imami 2009).

Descriptive background of the study villages

We conducted surveys in four Albanian villages using face-to-face interviews with village representatives and heads of households. The survey was conducted during May 2013. The villages selected for the surveys were Pulahe from Korca District; Çidhen, Dibra District; Dushk-Peqin, Lushnja District and Vishaj, Tirana district (Table 2). Villages were selected to represent the geographical diversity of Albania and different methods of land reform implementation (Demaj 2013).

Socio-economic situation of study villages

Family structure in the study villages is composed of a married couple and their children. Married daughters live with in-laws. Usually married sons after a while would seek another place to live but in most cases the youngest son lives with his parents. Vishaj seems to have a higher average of household members (4.3) than the other three villages (between 3.5 and 3.9) (Table 2).

Migration represents an important aspect of village life in Albania. In the study region the out-migration rate is between 1.5% and 15.5% of the total village population. The highest rate is reported for Pulahe and the lowest for Dushk-Peqin. Relatively significant inward migration is also observed, between 10% and 12% of total village population. Households that migrated to the study villages are mainly originated from isolated villages (except in Çidhen). For example, migrants came to Dushk-Peqin mainly because it was easier to sell livestock products there. In Pulahe the newcomers had family relatives (e.g. through marriage) and village inhabitants gave them land to use as a way of starting a new life. The opposite situation is observed in Vishaj. The newcomers mainly originated from the North of Albania and most of the village inhabitants are unwilling to sell them land. Çidhen is the only village where newcomers are return migrants and are basically former residents who returned to their village of origin.

The average age of residents in the study villages is between 40 and 44 years (Table 2). Gender differences are not very accentuated among village inhabitants. However, the share of females is lower than the share of males in the total population in the study villages. What is important to mention is that it is men who really manage, organise and take decisions in most households. When the head of the household is a female, the farm is still managed in most cases by the eldest son.

Table 2. Main characteristics of survey villages.

| Fragmentation indicators                  | Unit | Vishaj | Pulahe | Çidhen | Dushk-Peqin |
|------------------------------------------|------|--------|--------|--------|-------------|
| Total number of inhabitants              | Number | 507    | 669    | 523    | 1565        |
| Average age                              | Years | 42     | 44     | 40     | 42          |
| Number of household members              | Number | 4.3    | 3.9    | 3.5    | 3.5         |
| Total agricultural area                  | Ha    | 186    | 258    | 97     | 591         |
| Agricultural area per capita             | Ha    | 0.37   | 0.39   | 0.19   | 0.39        |
| Total number of plots                    | Number | 462    | 668    | 805    | 1658        |
| Average plot size                        | Ha    | 0.4    | 0.4    | 0.1    | 0.4         |
| Average farm size                        | Ha    | 1.2    | 1.8    | 0.5    | 1.2         |
The main occupation of rural households is farming, with the highest rate being in Dushk-Peqin (Table 3). The next in importance is retirement, representing between 11.5% and 15.5% of the total active population. Off-farm employment reaches 18.4% in Vishaj, mainly due to its vicinity to the capital city Tirana. In other villages off-farm employment is much lower (between 1% and 6%). Private non-agricultural business is also more important in Vishaj (4.6%) than in the other villages (between 0.6% and 2.4%), where some households established small private businesses such as bars and restaurants. A significant share of the population (between 0.3% and 62%) receives ‘economic aid’ which includes social transfers to special status persons or poor households (Table 3).

Land reform in the study villages

Pulahe (Korca District)
Pulahe’s agricultural land was a part of an agricultural cooperative prior to land privatisation. The implementation of the land reform began in 1991 and lasted until 1992. It ended peacefully without any contest or conflict between the new and the former landowners. The land distribution was based entirely on Law 7501 and the amount of land distributed was 0.47 ha per capita. Land was granted based on the first pre-collectivisation ownership but not more than the norm was allowed (i.e. no more than 0.47 ha per capita). Thus former owners were only partially restituted for the land they owned before 1945.

Çidhen (Dibra District)
Land reform implementation in Çidhen was not based on Law 7501. Land was restituted to former owners. There was a common agreement between land commissioners. The former landowners’ claims were identified by gathering the third generation of household members (the elder men). The elders restituted land taking into consideration old boundaries, based first on fis (kinship) and then per household. In general, the restitution process was peaceful and no conflicts were reported. The elders’ decisions were accepted by all village residents.

Dushk-Peqin (Lushnja District)
Land reform was implemented based on Law 7501. It started in 1992 and was completed in 1993. The amount of land distributed was 0.44 hectares per capita of different

Table 3. Structure of employment in survey villages, %.

| Description                    | Pulahe | Çidhen | Vishaj | Dushk-Peqin |
|--------------------------------|--------|--------|--------|-------------|
| Farmer (self-employed)         | 60.5   | 15.7   | 50.3   | 72.9        |
| Private non-agr. business      | 2.4    | 1.5    | 4.6    | 0.6         |
| Student                        | 3.8    | 2.3    | 0.8    | 3.8         |
| Private off-farm or state employee | 0.9  | 4.4    | 18.4   | 6.3         |
| Housewife/housekeeper          | 0.0    | 0.4    | 0.2    | 0.4         |
| Pensioner                      | 15.5   | 11.5   | 14.1   | 14.1        |
| Economic aid                   | 1.4    | 62.0   | 1.0    | 0.3         |
| Migrants                       | 15.5   | 2.3    | 10.6   | 1.5         |
types of land (arable land, orchards etc.). The whole land distribution process was peaceful, without any major conflict. The fact that one representative of each fis (kinship) was included in the land division commission perhaps contributed to the peaceful implementation of the reform. It is important to note that the land was not owned by the current residents of the village before 1945. Unlike in other study villages, the land division was organised so as to minimise the number of plots per household in order to avoid fragmentation.

**Vishaj (Tirana district)**

The implementation of land reform in Vishaj was originally in compliance with Law 7501. The amount of land initially distributed was between 0.25 and 0.28 hectares per capita. However, after the land distribution was completed, the former owners claimed the land and the whole process ended in conflict. Some former owners occupied land already distributed and to which ownership had been granted (under Law 7501) to ‘non-autochthonous’ residents (newcomers). Two solutions were offered to former owners to remedy the conflict: (i) donation of a part of the land or (ii) sale of land at below the market price. These solutions (including the occupied land) were informal and are not recognised as legal ownership. Officially, individuals who were distributed land under Law 7501 are the legal owners of the occupied property.

**Survey results: land market in the study villages**

It was expected that land transactions would increase over time in the villages surveyed, given that the land distribution was made on a per capita basis and was not necessarily allocated to the most efficient users. In well-functioning markets, land sale and/or rental markets would facilitate transfer of land from less to more efficient users. However, in Albania there are important transaction costs in the land market related in particular to ownership insecurity, regulation of land sales and land fragmentation. These factors are likely to constrain land transactions.

The persistence of subsistence farming in Albania is also likely to reduce market transactions. Subsistence farmers devote a significant share of land to production of food for their own consumption rather than for sale; nor do they rent out land. Subsistence farms operate as self-contained units and produce a major part of their food requirements. Their shadow price of land is often above the market price owing to its importance for ensuring the food security of household members as well as providing benefits stemming from asset accumulation and risk management in the presence of market imperfections (Carter and Mesbah 1993, Binswanger et al. 1995, De Janvry et al. 2001, Promsopha 2013).

**Land fragmentation and farm size**

Van Dijk (2003) divides land fragmentation into two types: (i) ownership fragmentation and (ii) use fragmentation. Both types of fragmentation are significant in the study villages. The total area of all four study villages (1132 ha) is split into 3512 plots, implying that on average a hectare of land is split into 3.1 plots.\(^1\) The highest number of plots per hectare is in Çidhen (7.4), where land is scarcer, while the lowest is in Vishaj (2.5). This could also be explained by the fact that land in Çidhen was restituted to former owners in the old boundaries. In other villages an attempt was made to consolidate
plots, such as happened in Dushk-Peqin, and the distribution of land was not constrained by old boundaries (Table 4).

Land ownership fragmentation can be measured by the distribution of land between landowners and the number of plots per landowner. Results in Table 4 show that ownership fragmentation is quite significant in the study villages. The total area owned by an average landowner is 1.1 hectares, with the largest landowner owning only 14.58 hectares. Each landowner’s area is split on average into 3.5 parcels and this varies between 1 and 25 plots. The greatest land ownership fragmentation is in Çidhen, where an average landowner owns only 0.5 hectares split into 3.7 plots. In the other three villages the ownership size varies between 1.2 and 1.8 hectares with plot numbers being between 2.8 and 4.5 (Table 4).

Land use fragmentation is visible from the small average farm size prevalent in the study villages and the relatively large number of plots per farm. The average farm size varies between 0.5 and 1.8 hectares with the highest being in Pulahe (1.8 ha) and the lowest in Çidhen (0.5 ha). The range of farm size in the survey villages is between 0.03 hectares and 7.8 hectares. The maximum farm size of 7.8 hectares is relatively low by European standards (Table 5). Farms are particularly small in Çidhen because of land scarcity, where 71% of farms are less than 1 hectare. In the other three villages most farms (more than 65%) have between 0.5 and 3 hectares (Table 6). In Pulahe the smallest farms belong to the specialists who used to work in the cooperatives during the previous regime, while in Dushk-Peqin they belong to newcomers who bought land from villagers. The average number of plots per farm is between 3 and 4.5. The highest number of plots per farm is in Pulahe (4.5) because the land there is more heterogeneous. In other villages the number of plots per farm is between 3 and 3.7 (Table 5).

There are three main reasons for land fragmentation in the survey villages: (i) land distribution on a per capita basis, (ii) splitting of distributed land by quality, type (e.g. arable land, orchards) and location and (iii) land scarcity relative to density of rural population. These factors lead to both ownership and use fragmentation of land.

Land use fragmentation may influence farmers’ performance and productivity. The costs associated with land fragmentation include higher transport costs if a farmer needs to travel from one parcel to another, waste of labour time in travelling, remote plots may suffer from low soil quality, and extra equipment and extra farm buildings might be needed in order to cope with land fragmentation (Johnson and Barlowe 1954, Buck 1964, Blarel et al. 1992, van Dijk 2003, Latruffe and Peit 2013). However, Deininger et al. (2012) find no support for the argument that land fragmentation reduces

Table 4. Land ownership fragmentation in survey villages.

| Number of owners | Area per owner (ha) | Min area per owner (ha) | Max area per owner (ha) | Min number of plots per owner | Max number of plots per owner |
|------------------|--------------------|------------------------|------------------------|-----------------------------|-------------------------------|
| Pulahe           | 145                | 1.8                    | 0.40                   | 7.80                        | 4.5                           | 2.5                           | 1                             | 11                           |
| Çidhen           | 214                | 0.5                    | 0.02                   | 1.85                        | 3.7                           | 7.4                           | 1                             | 16                           |
| Vishaj           | 160                | 1.2                    | 0.05                   | 5.10                        | 2.8                           | 2.3                           | 1                             | 14                           |
| Dushk-Peqin      | 489                | 1.2                    | 0.06                   | 14.58                       | 3.3                           | 2.75                          | 1                             | 25                           |
| All villages     | 1008               | 1.1                    | 0.02                   | 14.58                       | 3.5                           | 3.1                           | 1                             | 25                           |
productivity based on estimates of stochastic frontier production functions using the 2005 Albania Living Standards Survey. Results found by Sikor et al. (2009) also reveal a rather counter-intuitive impact of land fragmentation on cropland abandonment in 100 rural villages surveyed in 2004; i.e. villages with more fragmented land holdings tend to have lower abandonment rates in the early transition period, though no effect was observed in the later period in 1996–2003.

Fragmentation might also have a positive impact on farm performance. First, parcels may differ with respect to soil type, water retention capacity, slope, altitude and agro-climatic location. By operating parcels in different locations, farmers might be able to reduce the variance of total output because the scattering of parcels reduces the risk of total loss from flood, drought, fire and other perils and also because farmers can more efficiently diversify their cropping mixtures across different growing conditions. Second, in the unstable economic environment of the transition period and food insecurity, land fragmentation may be preferred by the population as it may contribute to cheaper supply of a more diversified basket of food for household self-consumption. If a household owns a heterogeneous set of plots in terms of soil quality, the supply of a diverse food basket for self-consumption may become cheaper as it can better sustain production diversity. Finally, land fragmentation may lead to increased biodiversity (positive externality) due to the probable higher diversity of crops cultivated on the land (Johnson and Barlowe 1954, Buck 1964, Blarel et al. 1992, van Dijk 2003, Latruffe and Peit 2013).

Van Dijk (2003) considers fragmentation in land use more problematic than ownership fragmentation. However, Ciaian and Swinnen (2006) argue that land ownership fragmentation might also be problematic in the context of transition countries. They show that ownership fragmentation in transition countries increases land market transaction costs and improves land access for the incumbent farmers at the expense of new entrants.

Table 5. Land use fragmentation in survey villages.

|                  | Average farm size (ha) | Min. farm size (ha) | Max. farm size (ha) | Number of plots | Average number of plots per farm | Number of plots per hectare |
|------------------|------------------------|---------------------|---------------------|----------------|-------------------------------|-----------------------------|
| Pulahe           | 1.8                    | 0.40                | 7.8                 | 657            | 4.5                           | 2.50                        |
| Çidhen           | 0.5                    | 0.03                | 1.9                 | 802            | 3.7                           | 7.40                        |
| Vishaj           | 1.2                    | 0.05                | 5.1                 | 463            | 3.0                           | 2.33                        |
| Dushk-Peqin      | 1.2                    | 0.14                | 5.4                 | 1590           | 3.3                           | 2.75                        |
| All villages     |                        | 0.03                | 7.8                 | 3512           | 3.10                          | 3.10                        |

Table 6. Farm size distribution in survey villages, %.

| Farm size          | Pulahe | Çidhen | Vishaj | Dushk-Peqin |
|--------------------|--------|--------|--------|-------------|
| 0–0.5 ha           | 1.5    | 39.2   | 4.8    | 2.5         |
| 0.51–1.0 ha        | 5.0    | 32.0   | 17.7   | 13.9        |
| 1.01–2.0 ha        | 36.3   | 28.8   | 39.3   | 46.3        |
| 2.01–3.0 ha        | 33.6   | 0.0    | 11.3   | 22.4        |
| 3.01–4.0 ha        | 18.6   | 0.0    | 14.5   | 9.2         |
| 4.01–5.0 ha        | 0.0    | 0.0    | 9.7    | 2.2         |
| >5 ha              | 5.0    | 0.0    | 2.7    | 3.5         |
Land ownership structure and land sale market

The survey results indicate that since land reform completion in 1991–93 the land ownership structure has remained virtually unchanged and land sale transactions for agricultural purposes have been minimal or non-existent. According to the results reported in Table 7, more than 88% of land still has the owner who received the land through the land reform process in 1991–93. In Çidhen all land was given to former owners and since then this situation has remained unaltered. Land was transferred only through family line inheritance. In the rest of the survey villages land was distributed according to Law 7501 and most of the land has not changed owner since the end of the privatisation. Owing to conflicts between former owners and non-autochthonous residents, 4.8% of land has been occupied in Vishaj, where some of the former landowners decided to take the land from the legal owners. As Table 7 shows, this situation persists and continues to create uncertainties in the land market.

There is also reported acquisition of land by purchase but its extent is very small, representing less than 3% of the total agricultural area in more than two decades since the end of the privatisation process (Table 7). Land sales/purchases were more often conducted during 1992–96 and 2002–05. The main purposes of land purchase were for construction of houses and for establishment of small to medium-sized businesses (in Dushk-Peqin and Vishaj). A bigger share of land acquisition through purchase is observed in Vishaj. However, this is the effect of the above-mentioned conflict that emerged between former owners and farmers who had received land through the privatisation. Some of the land bought in Vishaj from farmers was sold at a lower price to the former owners in order to end conflicts over land ownership. The main buyers of land in Dushk-Peqin were newcomers who usually bought land from poor landowners. In Pulahe land sales occurred only once and everyone remembers it. In Çidhen there have been no land sales, mainly because land is scarce and has multiple functions for its owners. Land for Çidhen inhabitants provides a supply of basic food for household consumption, social status and linkage to a certain fîs.

Moreover, there are also barriers to land sales owing to official regulation. The civil code imposes several requirements on the land owner before he/she can sell land. The owner must first offer land for purchase to household members (e.g. brothers, father); the next in line are the closest relatives followed by neighbours. Only after obtaining approval from these three groups can land finally be sold on the open market to any potential buyer.

Overall these results indicate that land markets are very thin in the study villages, as a result of formal and informal regulations and institutions (e.g. ownership insecurity, social status, linkage to a certain fîs). The differences between villages are not significant. In all villages the status quo established by the 1991 land reform determines the present ownership structure. This holds also in Vishaj where conflicts between the new

|          | Law 7501 | Compensation | Purchased | Inherited | Occupied | Other |
|----------|----------|--------------|-----------|-----------|----------|-------|
| Vishaj   | 88.9     | 0.3          | 2.8       | 2.4       | 4.8      | 0.8   |
| Pulahe   | 98.9     | 0.0          | 1.1       | 0.0       | 0.0      | 0.0   |
| Çidhen   | 0.0      | 0.0          | 0.0       | 100       | 0.0      | 0.0   |
| Dushk-Peqin | 99.3 | 0.0          | 0.7       | 0.0       | 0.0      | 0.0   |
| All villages | 89.0 | 0.0          | 1.1       | 9.0       | 0.8      | 0.1   |
and the former owners emerged and most land sales were agreed as a remedy for the frictions between the two groups. Larger sales may be expected in other villages where such conflicts did not emerge. However, the threat of potential takeover of land by former owners may have restrained the number of transactions. Further factors potentially reducing land sales transactions cannot be excluded. The scarcity of land relative to rural population is great in the survey villages (especially in Çidhen), which makes it valuable in the context of subsistence farming, where agricultural production represents an important source of food supply for household consumption as is the case of study villages.

**Land rental market**

Land is used most of the time by owners; land renting is not widespread in the study villages. Overall only 14.9% of land is rented; it is highest in Pulahe, representing 31% of the total village area, and lowest in Dushk-Peqin, where only 6% of the total village land is rented (Table 8).

A strong determinant of land renting is family (kinship) ties. In all the survey villages the relationship between landowners and tenants is based on family acquaintance. In Çidhen 96.7% of households who rent in land are relatives of the landowner. Family ties appear to be least important in Vishaj, where land renting occurs between family members in only 68.2% of all cases (Table 9). According to Holden and Ghebru (2006) this may be explained by the fact that the trust level among relatives is higher than among non-relatives, and therefore they are to be preferred in rental arrangements in an environment with uncertainties and high transaction costs. This could be related to land ownership insecurity as former owners may claim a property right to land if it is rented out because this land might be deemed less controlled by the owner. As a consequence, landowners may not be able to reclaim land rented out and thus may prefer to rent only to individuals whom they trust (i.e. relatives) to avoid loss of land and/or potential conflict with former owners.

Absentee landowners are the main suppliers of land on the rental market. They are represented by individuals who left the village since the beginning of transition and live outside the village (often abroad). According to results reported in Table 10, more than 75% of landowners renting out land are located outside the village where their land is located. In Pulahe, Çidhen and Dushk-Peqin more than 75% of landowners who rent land out either live outside the district or are migrants in other countries. In Vishaj most landowners renting land out either live in the village (25%) or within the district (65%). Only 10% of landowners renting land out live outside Albania. This is probably linked to uncertainty of ownership where former owners claimed and occupied some land after the implementation of land reform.

| Table 8. Land renting in survey villages. |
|------------------------------------------|
|                                         |
| **Used by owner**                        |
| Number of plots | Area (ha) | % (ha) | Number of plots | Area (ha) | % (ha) |
| Vishaj         | 400       | 160.9  | 86.3          | 62        | 25.5   | 13.7  |
| Pulahe         | 461       | 177.2  | 68.7          | 193       | 80.9   | 31.3  |
| Çidhen         | 600       | 72.4   | 74.6          | 205       | 24.7   | 25.4  |
| Dushk-Peqin    | 1492      | 551.9  | 93.6          | 103       | 37.9   | 6.4   |
| All villages   | 2953      | 962.4  | 85.1          | 563       | 169.0  | 14.9  |
Table 9. Characteristics of land rented out in survey villages.

| Indicator                        | Unit     | Pulahe                  | Vishaj                  | Dushk-Peqin             | Çidhen                  |
|----------------------------------|----------|-------------------------|-------------------------|-------------------------|-------------------------|
|                                  |          | Relative | Non-relative | Relative | Non-relative | Relative | Non-relative | Relative | Non-relative |
| Tenant households                | %        |          |             | 75.0     | 25.0         | 68.2     | 31.8         | 70.6     | 29.4         | 96.7     | 3.3         |
| Rented-out plot size             |          |          |             |          |              |          |              |          |              |          |             |
| Min                              | Ha       | 0.04     | 0.06        | 0.05     | 0.08         | 0.04     | 0.06         | 0.01     | 0.01         |          |             |
| Max                              | Ha       | 1.55     | 1.85        | 1.35     | 3.27         | 1.28     | 1.35         | 0.70     | 0.52         |          |             |
| Average                          | Ha       | 0.41     | 0.45        | 0.45     | 0.86         | 0.31     | 0.43         | 0.12     | 0.17         |          |             |
| Period of rental agreement       |          |          |             |          |              |          |              |          |              |          |             |
| Min                              | years    | 3        | 3           | 2        | 3            | 4        | 7            | 5        | 8            |          |             |
| Max                              | years    | 15       | 14          | 15       | 10           | 15       | 12           | 18       | 14           |          |             |
| Average                          | years    | 8        | 9           | 7        | 6            | 10       | 9            | 12       | 11           |          |             |
| Rental price                     |          |          |             |          |              |          |              |          |              |          |             |
| Min rental price                 | lek/year/ha | 6000 | 7000        | 20,000   | 10,000       | 10,000   | 22,000       | 8000     | 22,000       |          |             |
| Max rental price                 | lek/year/ha | 15,000| 15,000      | 50,000   | 50,000       | 25,000   | 25,000       | 25,000   | 23,000       |          |             |
| Average rental price             | lek/year/ha | 12,230| 13,610      | 36,320   | 29,380       | 19,708   | 24,400       | 17,290   | 22,500       |          |             |
| Rental payment arrangement (% of rented-out plots) |          |          |             |          |              |          |              |          |              |          |             |
| Fixed payment                    | %        | 73.1     | 88.1        | 100      | 100          | 51.9     | 100          | 59.9     | 46.2         |          |             |
| Variable payment                 | %        | 5.2      | 3.4         | 0.0      | 0.0          | 48.1     | 0.0          | 40.1     | 53.8         |          |             |
| Fix+var. payment                 | %        | 19.4     | 8.5         | 0.0      | 0.0          | 0.0      | 0.0          | 0.0      | 0.0          |          |             |
| No payment                       | %        | 2.2      | 0.0         | 0.0      | 0.0          | 0.0      | 0.0          | 0.0      | 0.0          |          |             |
| Rental contract (% of rented-out plots) |          |          |             |          |              |          |              |          |              |          |             |
| Written/ registered              | %        | 0.0      | 8.5         | 0.0      | 0.0          | 5.1      | 8.3          | 0.0      | 0.0          |          |             |
| Written only                     | %        | 0.0      | 0.0         | 0.0      | 0.0          | 0.0      | 0.0          | 0.0      | 0.0          |          |             |
| Oral only                        | %        | 90.3     | 88.1        | 100      | 100          | 75.9     | 91.7         | 100      | 100          |          |             |
| No contract                      | %        | 9.7      | 3.4         | 0.0      | 0.0          | 19.0     | 0.0          | 0.0      | 0.0          |          |             |
The insecurity of land ownership combined with the dominance of absentee landowners on the supply side of the rental market might explain the high share of kin-to-kin transactions observed in the study villages. The absence of the landowner from the village, while renting out land, may lead to a higher chance of losing land to a former owner compared to non-absentee landowners (i.e. those living in the village). For an absentee landowner, monitoring of a tenant’s land use practices and ensuring that the land is not occupied by a former owner is costly. Renting land to relatives reduces monitoring costs thanks to the higher trust level among relatives and they might therefore be preferred in rental transactions. Furthermore, the subsistence farming may also explain the prevalence of kin-to-kin transactions on the rental market. To ensure food security for family relatives, absentee landowners may prefer renting out land to them rather than to non-relatives.

A vast majority of tenants (between 94% and 100%) live within the village where the land is located. This result is expected as tenancy implies cultivation of land and requires presence in the village where the land is located (Table 10). Most rent payments are in cash and are a fixed monetary payment. This could be explained by a preference for fixed rents on the part of absentee landowners (in contrast to sharecropping) in order to minimise the costs of monitoring and enforcing the rental contract (Holden and Ghebru 2006). Average rents are lower when landowner and tenant are relatives (except for Vishaj). This difference is more noticeable in Dushk-Peqin and Çidhen than in the other two villages (Table 9).

Most land contracts are oral and of short-term duration (Table 9). Landowners and tenants decide every year about continuation of the tenancy contract. However, in practice contracts are extended regularly. More than 85% of all rental arrangements had the same tenant for more than six years in the four study villages. In Vishaj the situation is different. Around 60% of the current tenants have been using the same parcel for not more than five years (i.e. between one and five years), suggesting that landowners and tenants change more frequently than in the other villages (Table 11). This is surprising as, according to Holden and Ghebru (2006), if landowner and tenant continue to trade over several periods, trust will increase, which may circumvent the property rights insecurity particularly relevant for Vishaj. On the other hand, by changing the tenancy arrangement regularly, landowners may attempt to enforce their control and ownership right over the land, which may prevent former landowners claiming it. Former landowners may be more likely to claim land if it is not used by the owner. As expected in Çidhen, with high land scarcity, 78.1% of tenants have been using the same plot for between 6 and 11 years and 20.2% for more than 15 years (Table 11).

Table 10. Location of households by renting behaviour in survey villages, %.

|          | Within village | Within district | Outside district | Outside Albania |
|----------|----------------|----------------|-----------------|-----------------|
| Vishaj   | Renting out    | 25             | 65              | 0               | 10              |
|          | Renting in     | 94             | 6               | 0               | 0               |
| Pulahe   | Renting out    | 12             | 13              | 25              | 50              |
|          | Renting in     | 96             | 4               | 0               | 0               |
| Çidhen   | Renting out    | 0              | 0               | 98              | 2               |
|          | Renting in     | 100            | 0               | 0               | 0               |
| Dushk-Peqin | Renting out | 0              | 6               | 26              | 68              |
|          | Renting in     | 94             | 6               | 0               | 0               |
Determinants of land renting

In this sub-section we analyse determinants of participation in the rental market and factors affecting the choice of rental contract duration. Current literature estimates land renting behaviour using two or more stage approaches. The first stage focuses on the decision to rent land out/in, in order to examine factors that motivate participation in the rental market (Holden and Ghebru 2006, Akter 2006, Tu et al. 2006, Feng and Heerink 2008, Huy et al. 2013). In the second stage, given the decision to rent land out/in, the landowner/tenant makes a decision on tenant/landowner type (Macours et al. 2010, Ma et al. 2014) or contract type (Bezabih and Holden 2006).

In this study, we apply a two-stage probit model first to estimate land renting behaviour and second to estimate contract duration choice. We perform estimations at plot level. The first stage is expressed by the rental market participation model, where the dependent variable is equal to one if a given plot is rented out and zero otherwise. The independent variables include the plot’s characteristics ($P$) (total size of the plot), landowner’s characteristics ($L$) (gender, age, female to male ratio, number of household members, number of cattle, total area owned) and village characteristics ($V$) (village dummies):

$$R = \alpha_0 + \alpha_1 P + \alpha_2 L + \alpha_3 V + \varepsilon \quad (1)$$

where $R$ is the dependent variable (=1 if the plot is rented out and 0 otherwise), $\alpha$ are unknown coefficients to be estimated, and $\varepsilon$ is independently and identically distributed random error. The variables included in the rental market participation model are described in Table 12.

In the second stage the rental partners decide whether the contract will be short-term or long-term:

$$C = \beta_0 + \beta_1 K + \beta_2 T + \beta_3 P + \nu \quad (2)$$

where $C$ is a dummy for contract duration choice (=1 if long-term contract and 0 if short-term contract), $K$ represents the landowner’s characteristics (gender, age, number of household members, number of cattle, total area owned), $T$ represents the tenant’s characteristics (age, number of cattle, total area owned, number of household members, kinship relationship between landowner and tenant), $\beta$ are unknown coefficients to be estimated and $\nu$ is an independently and identically distributed random error (Table 12).

The estimated results are reported in Table 13. The estimates on the rental participation decision (first stage) show that the probability of renting out land increases when the head of household is male. The relationship between landowner age and the decision to rent land out is non-linear. Land renting out is lower for young landowners than for older landowners, probably because younger farmers tend to have more labour capacity than older farmers and therefore supply less land on the rental market. The probability

| Location | 1–5 years | 6–10 years | 11–15 years | >15 years |
|----------|-----------|------------|-------------|----------|
| Vishaj   | 59.5      | 33.8       | 6.5         | 0.2      |
| Pulahe   | 13.8      | 74.9       | 11.3        | 0.0      |
| Çidhen   | 1.7       | 34.8       | 43.3        | 20.2     |
| Dushk-Peqin | 12.6     | 51.3       | 36.1        | 0.0      |
| All villages | 13.5    | 47.0       | 26.8        | 12.7     |
of renting out land increases with the number of members in the landowner’s household. This is in contrast to findings in the literature. Larger households consume more food which may require higher agricultural production and hence renting out is expected to be lower.

Households which use farm cattle tend to rent out less land. A higher level of asset endowment (cattle) allows them to expand farm operations. The land endowment of landowners, plot size and the female ratio have no statistically significant impact on land renting decisions. In Pulahe land renting is significantly higher than in the other three villages. This could be due to village proximity to the district centre. Villages closer to towns may offer more employment opportunities and people may thus tend to rent out their land. On the other hand, such farmers can more easily sell their products directly in town markets than can those from distant villages, which should have a reverse effect on land renting. The results in Table 13 indicate that the former effect is likely to be stronger than the latter for Pulahe.

The results on contract duration choice reported in Table 13 (second stage) indicate that kinship relationship is a strong determinant of the choice of rental contract duration. Landowners tend to choose long-term contracts if they are related to the tenant and short-term contracts with non-kin tenants. As explained in previous sections, landowners prefer renting to relatives and offer long-term contracts more readily to tenants they trust.

| First stage Code | Definition | Second stage Code | Definition |
|------------------|------------|-------------------|-----------|
| R                | Dummy variable for land renting; 1 if plot rented in/out; 0 otherwise | C         | Dummy for contract type: 1 if long-term contract; 0 if short-term contract |
| P1               | Total area of plot | P1 | Total area of the plot |
| L1               | Dummy for gender: 1 for male landowner | K1 | Dummy for gender: 1 for male landowner |
| L2               | Age of household head | K2 | Age of landowner’s household head |
| L3               | Female-to-male ratio | K3 | Number of household members of landowner |
| L4               | Number of household members | K4 | Number of cattle of landowner |
| L5               | Number of cattle | K5 | Total area of owned land by landowner |
| L6               | Total area of land owned by household | T1 | Dummy for kinship relationship between tenant and landowner: 1 for kinship |
| V1–V3            | Village dummies: V1=1 for Dushk-Peqin, V2=1 for Çidhen, V3=1 for Pulahe | T2 | Age of tenant’s household head |
| T3               | Number of cattle of tenant | T4 | Total area of owned land by tenant |
| T5               | Number of household members of tenant |
owing to property rights insecurity and to reduce monitoring costs, given the fact that most landowners are absentee. The duration of the rental contract is also significantly affected by the age of the household head (landowner and tenant), number of household members (landowner), number of cattle (landowner) and area of land owned (landowner and tenant).

## Conclusions

In this article we have analysed land market development in Albania more than two decades after the completion of land privatisation in the early 1990s. Albania represents a particularly interesting case for studying land markets. Agriculture still represents an important share in the overall economy, whilst the transition from planned to market economy in the early 1990s provides a natural experiment in identifying structural changes that took place in land markets. We base our analysis on a survey conducted in four Albanian villages during May 2013.

Our results indicate that land markets are rigid: almost no structural change took place over the two decades of transition in the survey villages. Sale markets are almost non-existent: less than 3% of the total agricultural land was exchanged between households since the end of the privatisation process. Basically, the status quo established by the 1991 land reform determines the present ownership structure. This could be attributed to formal and informal regulations and institutions and prevalence of subsistence farming in rural Albania.

Rental markets are more sizable, representing 15% in terms of total area in the survey villages. However, land supply on the rental market comes mainly from absentee landowners. Owing to property rights insecurity and to reduced monitoring costs, the

| Rental market participation (first stage) | Contract choice decision (second stage) |
|------------------------------------------|----------------------------------------|
| Estimated coefficients | Estimated coefficients |
| Plot area (P1) | 0.0000 | Plot area (P1) | 0.0000 |
| Gender (male) (L1) | 0.4410*** | Gender landowner (K1) | 0.7000 |
| Age (L2) | -0.0814*** | Age landowner (K2) | 0.1960*** |
| Age2 (L2 squared) | 0.0007*** | Number of household members of landowner (K3) | -0.5050** |
| Female to male ratio (L3) | 0.1460 | Cattle landowner (K4) | -0.7090*** |
| Number of household members (L4) | 0.0927** | Owned land landowner (K5) | 0.0001** |
| Cattle (L5) | -0.4500*** | Kinship (T1) | 4.0360*** |
| Owned land (L6) | 0.0000 | Age tenant (T2) | 0.1150** |
| Owned_land2 (L6 squared) | 0.0000 | Cattle tenant (T3) | -0.1740 |
| Dushk-Peqin (V1) | -0.2210 | Owned land tenant (T4) | -0.0002*** |
| Çidhen (V2) | 0.2330 | Number of household members of tenant (T5) | -0.3430 |
| Pulahe (V3) | 1.5530*** | Constant | -15.4300*** |
| Constant | -0.2320 | Number of observations | 98 |

***p<0.01; **p<0.05; *p<0.1.
vast majority of rental arrangements are between family relatives. The rental arrangements rely on trust as most contracts are oral and informal. Landowners do not often change tenants. The length of tenancy arrangements tends to be long, sometimes since the beginning of the transition period.

These results have important economic and policy implications. They suggest that land reforms implemented since 1991 were not conducive to land market development. The existence of a rigid land market potentially reduced agricultural productivity because the transfer of land from less to more efficient farms was minimal given that the vast majority of land remained with the same owner as established by the 1991 reform. The land tenure regulatory rigidities have remained in place (e.g. land ownership security) and need further policy attention.

Second, our findings portend that an important driver of land market development could be linked to macroeconomic development. The results of our analysis suggest that absentee landowners are the main suppliers of land on the rental market. Sustained development of the Albanian economy may thus promote similar developments by absorbing rural labour which may free land resources for rental markets. However, these developments probably need to be linked to ownership reform to increase its security as currently most rentals take place between kin members as a strategy to prevent the potential loss of land to former owners.

Finally, contrary to the above explanation of state-induced land market rigidities (through tenure regulations) and its non-functionality, our findings also provide some support for a rational choice argument for these developments. The prevalence of a small number of transactions on land markets may also indirectly indicate that this could be a preferred choice of rural households. The majority of households are subsistence farms in Albania and the availability of land might be conducive to providing food for the needs of rural households. This may have helped them to cope with risk in an unstable economic environment during the transition period and potentially contributed to social stability in rural Albania. Subsistence farms operate as self-contained units and devote a major part of their production to household food consumption, which induces lower market participation (including on land markets).

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Notes
1. This is in the range of the national average reported in Table 1.
2. This is consistent with the country average which is 1.25 hectares (Table 1).

References

Akter, S. et al., 2006. Land rental markets in India: efficiency and equity considerations. Paper presented at the Annual meeting of the International Association of Agricultural Economists, 12–18 August 2006, Queensland, Australia.
Allen, D.W. and Lueck, D., 2002. *The nature of the farm, contracts, risk, and organization in agriculture*. Cambridge, MA: MIT Press.

Bezabih, M. and Holden, S. 2006. Tenure insecurity, transaction costs in the land lease market and their implications for gendered productivity differentials. Paper presented at the 26th *international conference of the International Association of Agricultural Economists*, 12–18 August 2006, Brisbane, Australia.

Binswanger, H.P., Deininger, K. and Feder, G., 1995. Power, distortions, revolt, and reform in agricultural land relations. In: J. Behrman and T.N. Srinavasan, eds. *Handbook of development economics* vol. III. Amsterdam: Elsevier Science Publishers, 2659–2772.

Blarel, B. et al., 1992. The economics of farm fragmentation: evidence from Ghana and Rwanda. *World Bank economic review*, 6 (2), 233–254.

Bliss, C.J. and Stern, N.H., 1982. *Palanapur: the economy of an Indian village*. Delhi and New York: Oxford University Press.

Buck, G.L., 1964. *Land utilization in China*. New York: Paragon.

Carter, M. and Mesbah, D., 1993. Can land market reform mitigate the exclusionary aspects of rapid agro-export growth? *World development*, 21 (7), 1085–1100.

Ciaian, P. et al., 2012. *Institutional factors affecting agricultural land markets*. Factor markets working papers no. 118, Centre for European Policy Studies, Brussels.

Ciaian, P., Pokrivcak, J. and Drabik, D., 2009. Transaction costs, product specialisation and farm structure in Central and Eastern Europe. *Post-communist economies*, 21 (2), 191–201.

Ciaian, P. and Swinnen, J.F.M., 2006. Land market imperfections and agricultural policy impacts in the new EU member states: a partial equilibrium analysis. *American journal of agricultural economics*, 88 (4), 799–815.

Ciaian, P. and Swinnen, J.F.M., 2009. Credit market imperfections and the distribution of policy rents. *American journal of agricultural economics*, 91 (4), 1124–1139.

Cungu, A. and Swinnen, J., 1997. Agricultural privatisation, land reform and farm restructuring in Albania. In: J. Swinnen, A. Buckwell and E. Mathijs, eds. *Agricultural privatisation, land reform and farm restructuring in Central and Eastern Europe*. Aldershot: Ashgate, 1–21.

Cungu, A. and Swinnen, J., 1999. Albania’s radical agrarian reform. *Economic development and cultural change*, 47 (3), 605–620.

Dale, P. and Baldwin, R., 2000. Emerging land markets in Central and Eastern Europe. In: C. Csaki and Z. Lerman, eds. *Structural change in the farming sectors in Central and Eastern Europe*. WB technical paper, no. 465, Washington, DC: World Bank, 81-109.

De Janvry, A. et al., 2001. *Access to land, rural poverty and public action*. New York: Oxford University Press.

de Waal, C., 2004. Post-socialist property rights and wrongs in Albania: an ethnography of agrarian change. *Conservation society*, 2 (1), 19–50.

Deininger, K. and Feder, G., 2001. Land institutions and land markets. In: B.L. Gardner and G.C. Rausser, eds. *Handbook of agricultural economics*. Amsterdam: Elsevier North Holland, 287–331.

Deininger, K., Savastano, S. and Carletto, C., 2012. Land fragmentation cropland abandonment and land market operation in Albania. *World development*, 40 (10), 2108–2122.

Demaj, J., 2013. *Land fragmentation and land market development: an Albanian case study*. Master Thesis. European Erasmus Mundus Programme, Ghent University, Agrocampus Ouest, Humboldt University of Berlin, Slovak University of Agriculture in Nitra, University of Pisa, Wageningen University.

Diaz, A., 2000. On the political economy of Latin American land reforms. *Review of economic dynamics*, 3 (3), 551–571.

Fafchamps, M., 2004. *Market institutions in sub-Saharan Africa*. Cambridge, MA: MIT Press.

Feder, G., 1985. The relation between farm size and farm productivity: the role of family labour, supervision and credit constraints. *Journal of development economics*, 18 (2–3), 297–313.

Feng, S. and Heerink, N., 2008. Are farm households’ land renting and migration decisions inter-related in rural China? *NJAS – Wageningen journal of life sciences*, 55 (4), 345–362.

Griffin, K., Khan, A.R. and Ickowitz, A., 2002. Poverty and the distribution of land. *Journal of agrarian change*, 2 (3), 279–330.

Hartvigsen, M. 2013. *Land reform in Central and Eastern Europe after 1989 and its outcome in the form of farm structures and land fragmentation*. Land tenure working paper 24, Food and Agriculture Organization of the United Nations, Rome.
Holden, S.T. and Ghebru, H., 2006. *Kinship, transaction costs and land rental market participation*. Working paper, Norwegian University of Life Sciences, Ås, Norway.

Hurrelmann, A., 2002. How to approach a market? A theoretical concept for defining and describing land markets. Paper presented at the *EAAE Congress*, 28–31 August 2002, Zaragoza, Spain.

Huy, H. *et al.*, 2013. Efficiency and equity impacts of the rental market for cropland in Vietnam and sources of transaction costs impeding the market. Paper presented at the *Conference of the New Zealand Agricultural and Resource Economics Society*, 28–30 August 2013, Christchurch, New Zealand.

Johnson, V.W. and Barlowe, R., 1954. *Land problems and policies*. New York, NY: McGraw-Hill.

Kancs, D. and Ciaian, P., 2010. Factor content of bilateral trade: the role of firm heterogeneity and transaction costs. *Agricultural economics*, 41 (3–4), 305–317.

Kellermann, K., Sahrbacher, C. and Balmann, A., 2008. Land markets in agent based models of structural change. Paper presented at the *107th EAAE Seminar: modelling of agricultural and rural development policies*, 30 January–1 February 2008, Seville, Spain.

Latruffe, L. and Peit, L., 2013. *Does land fragmentation affect farm performance? A case study from Brittany*. Factor markets working paper no. 40, Centre for European Policy Studies (CEPS), Brussels.

Le Mouël, C., 2005. *Agricultural land markets: main issues in the recent literature. The impact of decoupling and modulation in the enlarged Union: a sectoral and farm level assessment*. Working paper no. 2 of the IDEMA project, Partner 6 INRA-ESR, Rennes.

Lerman, Z., Csaki, C. and Feder, G., 2004. *Agriculture in transition: land policies and evolving farm structures in post-Soviet countries*. Lanham, MD: Lexington Books.

Lerman, Z. and Sutton, W.R., 2008. Productivity and efficiency of small and large farms in transition: evidence from Moldova. *Post-Soviet affairs*, 24 (2), 97–120.

Lusho, S. and Papa, D., 1998. *Land fragmentation and consolidation in Albania*. Working paper no. 25, Land Tenure Center, University of Wisconsin-Madison.

Ma, X. *et al.*, 2014. Perceived tenure security, trust and land rental markets in China. Paper presented at the *LAMO Forum 2014*, 25–27 June 2014, Halle (Saale), Germany.

Macours, K., de Janvry, A. and Sadoulet, E., 2010. Insecurity of property rights and matching in the tenancy market. *European economic review*, 54, 880–899.

MAFCP, 2011. *Statistical yearbook*. Tirana: MAFCP.

Promsopha, G., 2013. Land ownership as a safety net and land sales: a study among rural–urban migrants in Thailand. Paper presented at the *INFER annual conference*, 29 May–1 June 2013, Orléans, France.

Sabates-Wheeler, R., 2002. Consolidation initiatives after land reform: responses to multiple dimensions of land fragmentation in Eastern European agriculture. *Journal of international development*, 14, 1005–1018.

Sikor, T., Muller, D. and Stahl, J., 2009. Land fragmentation and cropland abandonment in Albania: implications for the roles of state and community in post-socialist land consolidation. *World development*, 37 (8), 1411–1423.

Swinnen, J.F.M., 1999. The political economy of land reform choices in Central and Eastern Europe. *Economics of transition*, 7 (3), 637–664.

Swinnen, J. and Vranken, L., 2007. *Patterns of land market development in transition*. LICOS discussion paper no 179, LICOS, Centre for Institutions and Economic Performance, KU Leuven, Leuven.

Tu, Q., Heerink, N. and Xing, L., 2006. Factors affecting the development of land rental markets in China: a case study for Puding County, Guizhou Province. Paper presented at the *conference of the International Association of Agricultural Economists*, 12–18 August 2006, Queensland, Australia.

van Dijk, T., 2003. Scenarios of Central European land fragmentation. *Land use policy*, 20, 149–158.

Wandel, J., Pieniadz, A. and Glauben, T., 2011. What is success and what is failure of transition? A critical review of two decades of agricultural reform in the Europe and Central Asia region. *Post-communist economies*, 23, 139–162.

Wegren, S.K., 2003. Why rural Russians participate in the land market: socio-economic factors. *Post-communist economies*, 15 (4), 483–501.
Wheeler, R. and Waite, M., 2003. Albania country brief: property rights and land markets. USA, Land Tenure Center, University of Wisconsin.

World Bank, 2013. Albania, World Bank Group partnership program snapshot [online], Washington, DC: World Bank. Available from: http://www.worldbank.org/content/dam/World bank/document/eca/al-snapshot-mar-2013.pdf.

Zhllima, E. and Imami, D., 2009. Land redistribution in Albania, its impact and the challenges of a post-reform. Paper presented at the Conference on Policies for reducing inequality in the developing world, Institute of Social Studies, 3–4 September 2009, the Hague, the Netherlands.