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A genealogy of the 'land rush' Waves of farmland acquisition and diverse investor strategies in Romania

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Abstract

Our paper addresses two gaps within the research on farmland investment, and the financialization of agriculture. First, we attend to the historical dimension that has not been regarded in studies on the construction of farmland as a financial asset. We show how different waves of farmland investments in Romania are rooted in historical agricultural developments of the country, and consequently the categories of actors that have emerged in farmland investments in Romania. Second, we unpack the notion of the 'investor' and identify various categories of farmland acquirers, investors and actors that form the landscape of farmland investments here. With these points we underline that the common conceptualization of 2007 as the watershed food crisis year, spurring a land rush everywhere across the globe, is incomprehensive. Our paper concludes that formulating in-depth understanding of the process of financialization in agriculture requires taking into account the historical, geographical and socio-economic context of the country or region, and the stage of the land rush.

Introduction

Studies on the construction of farmland as a financial asset have not yet paid much attention to the historical dimension of this phenomenon as Ouma (2016) observed. This holds true as well for the literature on land acquisitions at large, as noticed by Hall (2011), Edelman and León (2013) and Edelman et al. (2013). At the same time, recently there has been a call to unpack the notion of the 'investor' and pay more attention to the various types of farmland investors and farmland intermediaries (Ouma 2015; Clapp et al. 2017), as the categories of investors, their strategies and subsequent roles in agricultural and rural development may diverge quite substantially. Following up on Edelman and León (2013) we argue that the common conceptualization of 2007 as the watershed food crisis year, spurring a land rush everywhere across the globe, is incomprehensive, as it neglects further historical, geographical and socio-economic factors that may influence the unfolding of farmland investments in a certain region or country.

Based on our fieldwork in Romania conducted between 2015-2016 and for this paper thirty in-depth interviews with fund managers, farm managers, farmers, company representatives, land brokers, consultants, lawyers, asset managers and authorities, we distinguish various waves of farmland investment, with the first already starting in the mid-1990s. Further, we show that each of these waves is different, in terms of the stage of agriculture in Romania and the composition of farmland acquirers, investors and intermediaries, their land acquisition and business models. For instance, several 'trailblazers' motivated by a "first mover advantage" (Li 2014) entered when farmland was highly fragmented, whereas the majority of other categories of investors entered much later when larger consolidated landholdings became available. Also the extent of corporatization and financialization is not static, but varies across these waves.

Romania is an appropriate country to investigate the historical dimension of land investment as well as to unpack the notion of the 'investor', as major transformations occurred with a potentially strong impact on farmland investment (e.g. farmland privatization, EU accession) and because it is a country with a large diversity of investors in primary agriculture (Luyt et al 2014). A large variety of farmland investors, business entities and business models exist in Romania. Whereas in many countries we see one dominant business model or a limited range of models (in Russia and Ukraine mostly agro-holdings with an own-operate or lease-operate model; in Canada an own-lease out model, e.g. Magnan (2015)), in Romania a variety of actors, business entities and models can be observed. This diversity seems to originate from the very brief history of capitalist, post-socialist farming, which implies that farmland investment was somewhat of a tabula rasa. The variety of business entities and models is also related to Romania's mixed status as a farmland investment target country. On the one hand, it is an emerging economy, which means that it offers high potential for developing agriculture with potentially higher appreciation but it is also more risky than 'mature' farmland markets in the West due to weaker institutions. At the same time, Romania as a subsequently EU accession and EU country, offers more institutional security, as well as subsidies, than an investor would normally encounter in an emerging economy.

In a first part of the paper, after a short description of the locations we focus on, we mention the objectives of our research. We continue in a second part with the waves of farmland investments, drawing on the historical context of land reforms and agricultural development that have shaped farmland acquisition and business models in Romania. In the third part we will describe the different categories of investors and business models. The fourth section presents the conclusions.

1. Research location

Fig. 1: Historical regions Romania, Source: Wikimedia Commons

Fig. 2: Counties Romania, Source: Interferente.ro

Our research focuses on farmland that can be cultivated with cash crops such as cereals like corn, wheat, barley and oil-yielding crops like sunflower, rapeseed and soybean for fodder. These are the most common cash crops cultivated on large scale in Romania. The arable land that is suitable for these types of crops thanks to its expanse, fertile soil (chernozem-black earth), climate and access to transport ways is located in the plains and plateaus. We also include farmland for livestock farming.

Our focus is on six different historical regions of Romania (depicted in grey letters in Fig. 1), where most of these types of farmland investments are present: The Banat region and part of Crisana (West and South-West Romania), Oltenia, Muntenia, Dobrogea (South and South-East) and Moldova (North-East). In Table 1 we mention the counties, part of the different regions that are active in cash crop production. The distribution of these counties is depicted in Fig. 2. They are not the sole cash crop producing counties but the main presence of farmland investments occurs here, and as such these are the focus of our paper.

Banat	Crisana	Oltenia	Muntenia	Moldova	Dobrogea
Timis	Arad	Mehedinti	Teleorman	Galati	Tulcea
Caras-Severin		Dolj	Dambovita	Vrancea	Constanta
		Olt	Prahova	Vaslui	
			Calarasi	Botosani	
			Ialomita	Iasi	
			Giurgiu		
			Ilfov		
			Buzau		
			Braila		

Table 1: Locations of study

Romania holds vast expanses of cultivable surfaces. Of its whole stretch, 13.3 M ha is agricultural area[1] of which 8.3 M ha is arable land (Eurostat 2012). Of this arable land, a majority is planted with cereals, mainly corn and wheat, while a smaller part was oilseeds in 1998 (Buffaria et al. 1998; Eurostat 2012). Of the agricultural area, 3.1 M ha can be irrigated, but only 0.8 M ha were irrigated in 1998 (Buffaria et al. 1998). The southern plains and hills in the Northeast depend on irrigation for optimal yields and productivity (IFAD 2003; FAO 2016).

Within Central and Eastern Europe (CEE), Romania is considered to be one of the most favoured destinations for foreign investment in agriculture according to Luyt et al. (2013). It attracts a greater diversity of primary agriculture investors than any other new European Union (EU) accession country (Luyt et al. 2013). In the EU it is the country with the largest share of farmland held by foreign investors as indicated by Cibus (2013).

Agriculture still employs a large number of people, compared to other European countries that have developed their service sectors, while the agricultural sector is

[1] Agricultural land comprises arable land, permanent grassland-hayfields and pastures, permanent crops-vineyards and orchards, kitchen/family gardens and has decreased along the years (Buffaria et al. 1998; Eurostat 2012). Media, consultancy and academic articles regularly use 14.7 M agricultural area and 9.4 M arable area as reference e.g. MADR (2013)

characterized by a structural imbalance. Approximately 28% of the country's workforce is employed in agriculture compared to 4-5% in other Western countries (Barbu 2011). The World Bank (2015) estimated that 45% of the total population is present in rural areas while less than 8-9% of the active population in agriculture is under 35 years old (Barbu 2011; Vujulie et al. 2012 citing the National Statistical Institute 2006). The countryside has also been characterized by a lack of employment diversification, low income, weak social protection and underfinanced healthcare and educational infrastructure, which has given young people and families a strong incentive to migrate to urban areas but also abroad. An aging population, as in most Western European countries, characterizes the farming population left in the villages: two-thirds of the households have an average age over 50, while one-third is over 65 (Buffaria et al. 1998).

Studies on land reforms and the land market in Romania share the perspective that there is a bipolarity that characterizes its agricultural sector, which underlines a structural imbalance. This structure is considered to impair the competitiveness of Romanian agriculture in a European and global context (Csaki and Kray 2005; Balteanu and Popovici 2010). On the one hand, Romania has the most fragmented land ownership structure, and subsistence and semi-subsistence agriculture is an important feature of Romania's rural area where agricultural holdings up to 10 ha represent 97.7% of the total number of holdings and occupy 38.7% of the utilized agricultural area (Alexandri and Luca 2008). The country has reportedly the EU's most divided farmland ownership, with 3.86 M farms in 2010 making up 31% of the EU total (InCont 2014). The average size of a Romanian farm is 3.4 ha, compared with the EU average of 14.2 ha and 53.9 ha in France, the bloc's biggest agricultural producer (Ruitenberg 2014).

On the other hand, Romania also has a sector of agro-industrial farms, with farm sizes that are very large according to EU standards. A sizeable number of farms are several thousand hectares large, and some companies have landholdings over 10.000 hectares. Holdings over 100 ha represent 0.4% of the total number of holdings and occupy 48.9% of the utilized agricultural area.

An intermediate category of holdings with medium-sized family farms between 10-100 ha represents only a small percentage of 1.9% and occupies 12.4% of the utilized agricultural area (Manescu et al. 2014).

Historically, Romania was known as the breadbasket of the Ottoman Empire (Buffaria et al. 1998) and thanks to its abundance of natural resources has been traditionally one of the major agricultural economies of CEE according to IFAD (2003).[2] Countries like Romania in the agricultural region around the Black Sea, including Bulgaria, Ukraine and Russia, are considered to have the greatest growth potential in the coming decades, these being the first countries to cover the food deficit of Northern Africa and the Middle East (Razi 2013). Romania's position

[2] Often it is reiterated that it has been "Europe's most productive cereal-producing agriculture." In the late 19th century Romania indeed exported its surplus gain to Western Europe (Buffaria et al. 1998), however Barbu (2011) demythologizes the assertion that it was the most productive cereal producer in Europe.

especially favours faster connection to the Middle East than ports in Ukraine or Russia (Romania Insider 2014; Mintridge International 2015).

Drawing from all these considerations, the main objective of our research was to identify:

1. What role does the historical dimension play in how farmland investments evolved in Romania and in the types of actors present?
2. Who are the 'investors' and actors in farmland investments in Romania, and what are their business models?
3. Did the 2007 global food crisis define the land rush in Romania or did domestic and regional factors (historical, geographical, socio-economic, regulatory) factors play a key role in galvanizing a 'land rush'?

2. Waves of farmland investment

Historical background: The de-collectivization of farms in the 1990s

The characteristics of the six regions we refer to in our study and the differences among them, have shaped the eighteenth and nineteenth century agricultural structure and persisted well into the communist period up to the present day. In these centuries, large estates already dominated the fertile Southern, Southeastern and Northeastern black-earth plains. In these areas the distribution of arable land was disproportionate in 1907, similar to the largely bipolar structure today in Romania we have referred to in the previous section. Back then, more than 95% of farms held less than 40% of arable land, while less than 1% of farms held more than half the land, with little room for potentially mid-sized enterprises (Van Meurs 1999).

The regional differences were visible from earliest statistics as Buffaria et al. (1998) indicate, showing that the productivity of the regions in the West was higher than in the plain areas of Oltenia, Muntenia and Moldova (South, Southeast and Northeast). This difference seems to have been correlated with climate, topography and product mix as well as with cultural factors (Buffaria et al. 1998). Co-operatives and market structures were better developed in regions that were part of the Austro-Hungarian Empire (Habsburg Monarchy), such as the Banat region (Western Romania), while the plains in Oltenia, Muntenia and Moldova were a semi-frontier area even in the mid-19th century and were primarly dominated by large estates and contract managers (Buffaria et al. 1998; Van Meurs 1999). Under communism the South, Southeast and Northeast regions continued to be dominated by large-scale, extensive cultivation.

The communist takeover in Romania led in 1949 to a reform of agriculture. While the end goal was to create collective and particularly state farms of 100 hectares and more, the land initially expropriated from large landowners was distributed to landless villagers and smallholders (Buffaria et al. 1998; Van Meurs 1999). In the following phase, the plots of smallholders were merged into collective farms, peasant associations and co-operatives. By 1963 collectivization was completed, with 93.4% of arable land in state or collective farms. The state farms had the best land, equipment and the largest plots as former royal estates, estates of monasteries and some of the largest noble estates, used to own these lands (Van Meurs 1999).

At the end of the 1980s, Romania's economic system was one of the most highly centralized and controlled of all the former communist countries (IFAD 2003). State farms and cooperatives controlled more than 85% of the agricultural land (Csaki and Kray 2005). After 1989, collective farms were dissolved and the land restituted to former owners and their heirs before 1949, and to those who had worked in co-operatives during the three years before 1989. This created a demanding restitution process where the end of 1992 achieved the property rights only in 5% of the cases and 5 million citizens were still waiting to receive their ownership titles. By 1996 the restitution process began to reach completion with 64% property rights achieved (Van Meurs 1999). Land was restituted up to 10 ha while the set limit "gave the old nomenclature who had the connections and resources ample opportunity to outbid restituted farmers" and blocked the formation of a politically and economically powerful rural middle-class (Van Meurs 1999; Sabates 2005). This resulted in vast areas of farmland entering the ownership of some elites who started to assemble large farms, especially in the Southern and Northeastern part of Romania.

The structure of agriculture in this period was mainly defined by the presence of state farms, farmers associations, family associations and individual farms. The main tendency in the first half of the 1990s after the fall of communism was the fragmentation of land ownership. The average farm size fell to less than 2 ha. Many former landowners had died, moved to the city[3] or emigrated, while restitution claims caused many disputes, which frequently became court cases. In contrast to the overall trend of fragmentation, the South was mostly characterized by a remarkable continuity of large-scale farms (Buffaria et al. 1998). The authors note that state farms, as a rule located on the fertile plains, were maintained for some time to supply food for the cities in the transition period, until private farms were able to take them over. The poor state of local roads and marketing infrastructure gave a competitive advantage to the former state farms and collective farm units, most of which were better located than new individual farms (Buffaria et al. 1998).

Next to fragmentation, land abandonment was also an important trend of the first half of the 1990s (Kümmerle et al. 2009; cf. Alcantara et al. 2013). The new owners who benefited from the restitution process, but were not able to work the land that they had received were the ones to abandon this land (Balteanu and Popovici 2010). 8.8 M ha remained uncultivated between 1990 and 2006 according to Balteanu and Popovici (2010).

[3] At the same time, by 1995 the total working population in agriculture had increased from 29% in 1985 to 39% because of the decline of the industrial sector and the consequently increased role of agriculture as a social buffer (Van Meurs 1999; Petrick and Weingarten 2004)

Wave I. 1994 – 2005: Growing investment by Romanian and European farmers and land acquirers

By the mid-1990s when the majority of the former state land had been restituted (Van Meurs 1999) opportunities arose for investors to invest in agriculture. Laws at the end of the 1990s allowed free sale and lease of land (Buffaria et al. 1998). Foreigners, legal and natural persons were excluded from buying land. However, foreign legal persons could establish a Romanian subsidiary (SRL-limited liability company). Leasing was permitted to foreign individuals as well as foreign companies, while the state-owned land could be leased by foreign individuals and foreign companies through concession based on bids (Csaki and Kray 2005). Due to Romania's position as a transition country, fragmentation, insecure ownership rights and low productivity farmland was very low-priced.[4] Land prices were extremely low, compared to Western Europe, but also compared to Eastern European countries, which accessed the EU earlier (already in this phase), such as Poland. The availability of privatized farmland, partly as a consequence of an aging rural population (Csaki and Kray 2005), and the extreme low land prices attracted the interest of the first farmland acquirers. Further, in the mid-1990s Romania began its first steps towards EU accession, starting negotiations in 2002 (Moga and Antohi 2012) and signing the Act of Accession in 2005 (Swinnen and Vranken 2010), marking the start of the second investment wave. This process, leading up to EU accession further, contributed to the interest of foreign acquirers and investors in farmland.

The fragmentation of land ownership, while partly a reason for the low price of farmland, was at the same time a major obstacle, for the entrance of farmland investors. Five million people owned small plots of farmland, due to the restitution process. Several policy measures and other developments described by Buffaria et al. (1998) contributed to making farmland available for potential buyers, stimulating the emergence of larger landholdings and gradually rendering farmland investable.

First, the Romanian government sought to mitigate the effects of fragmentation by pressuring farmers to form an association (Buffaria et al. 1998), while at the same time trying to prevent excessive concentration, restricting the ownership of farmland by one family to 200 ha (Buffaria et al. 1998).

Second, the laws established in this period required land to be kept under cultivation and owners were subject to fines and expropriation if land was not cultivated for two years (Buffaria et al. 1998). Therefore, many smallholders, mainly urban dwellers or elderly people chose to lease their land (Buffaria et al. 1998; Duncan and Prosterman 2000). Lessees were commercial companies

[4] About 70% of farmers have a definitive ownership title (titlu de proprietate) at the end of this period (Buffaria et al. 1998) while the rest of farmers have a temporary property certificate, which is generally not accepted as security.

(former state farms), private agromecs and farmers associations but also individual farmers and family associations. Thanks to an active rental market, the structure of production was less fragmented than ownership, as larger sizes were leased than the legal limit for ownership (the payment in most lease contracts was by share of output rather than cash). In addition to this, the structure of land prices but also the complex and costly registration process for farmland stimulated the population to lease their land rather than sell (Csaki and Kray 2005):

"Doing the necessary steps for registering the farmland in the cadaster would cost owners more than the land itself. In this situation the state left them [local landowners] with the only solution to lease their land" (A 2015).

Fourth, many farmers were not eligible for loans due to the small sizes of their assets while the absence of cadaster made matters even more complicated (Buffaria et al. 1998). Due to historically different cadastral systems, title verification was more demanding in the South and Northeast (Csaki and Kray 2005), conditions that seemed to favour the expansion of well-connected and capitalized foreign investors especially in the Western part of Romania.

As a result of the above-mentioned developments the land market slowly started to develop. The structure and priorities of Romanian agricultural policy welcomed foreign investment in farmland. A new ordinance in 1997 allowed also foreigners to hold land when not in conflict with the constitution. Therefor it is sometimes described as land 'hold' rather than owned (Swinnen and Vranken 2010). Ciaian et al. (2012) indicate that between 1999-2005 the sales market for rural land was still low, with only 3.5% of farmland being exchanged through sales. However, in some areas significantly more land sales took place. Between 1998-2005 more than one-third of all land transactions registered in Romania at that time were registered in Timis County (Western Romania), where also most foreign investors arrived.[5] The first land acquirers in Romania emerged after law 92/1997 stimulating direct investment was introduced. Next to domestic buyers, the first foreign (West-European) buyers appeared. The low land prices were one of the drivers for endeavors focused on land appreciation. Also, 39 Italian-owned companies established in Western Romania by early 2003 that operated about 25.000 ha:

"I think the first wave of pioneers that went to Romania, when it was on its way to the EU (…) for cultural and language reasons, were Italian" (B 2015).

French farmers established between 1994-1997 and started most of their activity after 2000 (Swinnen and Vranken 2010). Large-scale financial investors were still rare during this period, hampered by the fragmented land market. However, a US private equity and venture capital firm established a major presence.

In 2002 a peak in traded area can be observed as Romania started negotiations with the EU. In 2005 a sharp increase in land prices unfolded, the year that

[5] Swinnen and Vranken (2010) identify that between 1999-2005 a smaller share of land sales as a percentage of total agricultural area was sold in Romania than in Bulgaria.

corresponds with Romania signing the Act of Accession, and when the second wave of farmland investment in Romania started (see upcoming section).

The process of acquiring farmland was by buying farmland piece by piece, directly from local sellers and most of the times through domestic intermediaries. An exception was represented by some well-connected Romanian oligarchs, who were able to take over state farms on concession contracts with the Romanian State especially in the South and Southeast, farms that were not split up upon de-collectivization but were converted into commercial companies. Considering the immature land market a range of intermediaries was present in this period, largely individuals who had the connections and the information about available land but had little knowledge of agriculture. Land intermediation or brokerage is not a registered and attested profession in Romania. Under these circumstances reliable intermediaries were at first hand difficult to identify in the farmland investment landscape. A lot of the land concentration occurring in this early phase of investment, was of a underhand character, as indicated by Rusu et al. (2011) and one interviewee:

"Domestic lessees, small farmers, have become large farmers by paying the local landowners less than the price received through subsidies. In some years they found excuses to not pay the lease because of droughts, while the state did not come up with any law to ensure and guarantee the lease for the small owner. Small farmers, by not paying the leases and receiving the subsidies, have become large owners" (A 2015).

This also applies for part of the foreign investment:

" (…) There was a large contingent of Italian (called) buccaneers that went in there and just aggregated land and at that time, you know, we all know the situation of the land register, so everybody was dealing the (certain) pieces of paper, and sometimes you bought the land in one go, and sometimes you had to buy it twice and sometimes you had to buy it three times, but it was so cheap, it really didn't matter" (B 2015).

Moreover, many of the investors at this time had speculative motives, rather than farming goals. The interviewee continues:

"So these were classic, you know, gold digger speculators that went in there and they really grabbed what they could grab and none of them, ever, I think, with any money were cropping anything. So they didn't put fertilizer on anything, they were hoping for a little bit of crop and little bit of subsidy and quite a bit of uplift in values, which occurred. So these first wave of buccaneers (Italians, French etc.), they sold out to the professional farm investors and (a) lot of them where Germans, British… Americans." … "And then as time goes by, you know, things become more civilized, more institutionalized, more corporatized" (B 2015).

Indeed in the later waves, as we will describe later, the land acquisition process changes. Some investors establish their own brokerage department and continue their farmland purchases, while others, having gained experience about the local circumstances, have established reliable connections with domestic intermediaries and Western farmers with experience in the Romanian land market. The high fragmentation, which hinders many other categories of investors from entering, can be at the same time a source of return, as land aggregation is a major source of farmland returns in Romania (Ruitenberg 2014). The method is to buy several plots from different owners to build a larger landholding or to add a small, unused plot to an existing farm. Several investors have undertaken the first process to be able to form larger plots of arable land. In more recent years, of the third investment wave, as large parts are already consolidated, the latter case is adopted.

Wave II. 2005-2010: Rapid emergence of large-scale foreign investors, land rush accelerates

Globally, the food sector displayed sizeable trends in this period. The global food prices rose from 2004 onwards driven by the economic growth of emerging economies in Asia, particularly China. As a consequence of rising per capita income, people in emerging countries demand more protein (and the feed to procure it) and less cereal, while in the US and EU, policies to stimulate biofuel lead to further demand for land. This increase in demand coupled with droughts lead to a big food price spike in 2007. Some food exporting countries imposed food bans, which further elevated world food prices, reducing the incentives for key investors to invest in the agricultural sector (Collier 2008) and stimulating countries with a strong dependence on imports such as China and the Gulf States to secure stable food supplies from land overseas. In the long term, a decline in arable land is expected, caused additionally by rising urbanization (Collier 2008). Modest increases in global income are expected to drive food prices up alarmingly unless matched by increases in food supply, while supply is further threatened by climate variability as a result of climate change (Collier 2008). Whereas investment by China and the Gulf States had a strong state-led component, and attracted most of the media attention, just as important, and arguably of even larger magnitude, was the emergence of different types of non-state private investors. As a consequence of high prices, which brought a very high profitability in the farming business, investors from other sectors became attracted. Most importantly, high prices attracted institutional managers who set up funds mainly from 2005-2006. As one asset manager affirms:

“The big investment wave happened and started to happen back in the mid-2000–2005, 2006, 2007. Those were the years when there was a massive investment in farmland all over the world” (C 2015).

A farm manager calls the period 2005-2007-2008 “the land grab period.” (D 2015). Two more interviewees confirm these statements[6]:

“There was a huge score of activity in 2007-2008 on the back of the price spike that we saw those years and also the fact that sort of pre to the financial crisis, people were scrambling around and looking for alternative investments, and farmland was actually in vogue in the sort of mid-2000” (E 2015).

Globally, after the financial crisis of 2008, there was a shift in focus. The global economic crisis fueled interest in farmland, prompting investors to look for new ways to grow and preserve wealth. Companies saw market demand for real assets and alternative investments. In the US for example, traditional farmland investors, focused on long-term goals, are still active but the crisis saw an increase in first-time investors entering the land market and steady activity from foreign investors, too (Smith 2010). Due to the economic growth slow-down however, the rise in land prices in various countries slowed down or stagnated (e.g. in Russia and Ukraine). Some investors halted their projects due to lack of finance (e.g. JP Morgan rapidly sold off a farm in 2008 it had just bought about a year earlier in Ukraine). However, with fewer prospects for short-term appreciation, new investors entered farmland, as farmland was considered a safe investment to weather the crisis. A financialization of farmland investment took place, with private equity firms, hedge funds, banks and other financial players entering the farmland investment landscape. However, Romania compared to developed Western European countries, was less of a focus for farmland investment as an alternative asset:

“Well then obviously we had the crash and nothing really happened for 2-3 years and then interest in farmland really picked up again, probably about 3-4 years ago (2011-2012), but it’s been slower in Romania than I say because I think in the sort of second wave of people picking up on farmland, they sort of started with the safer geographies, US, Canada, Australia, New Zealand” (E 2015).

In Eastern Europe there was marked growth of large-scale land investment, with various financial actors entering agriculture. In Russia and Ukraine, domestic and foreign companies assembled within a few years, extensive landholdings up to hundred thousands of hectares of fertile land (Visser and Spoor 2011). Various companies operating large farms in those countries became listed on the stock exchange (Kuns et al. 2016). Savills (2012) shows that the more immature markets of Romania, Hungary, Brazil, Argentina and Poland recorded the highest percentage increases in farmland values between 2002 and 2010. The primary

[6] “Well if you remember really, back in 2004 is when prices of corn, soybean, wheat, started to go up very considerably, and one of the reasons was obviously China. China became a major importer and you had growth in all the emerging markets, so there was a huge growth in food demand, in demand for animal protein. So what we saw was very high prices, which brought a very high profitability in the farming business and that obviously attracted investors from other sectors, and most importantly they attracted institutional managers who set up all these funds and that really happened mainly from 2005-2006” (C 2015).

reason, for the accelerated growth within CEE countries, was their entry into the European Union (EU) in 2004 with Bulgaria and Romania following in 2007. Restrictions in terms of foreign investment into farmland still apply in many of these countries, however their entry into the EU opened up the markets, which supported increase of farmland values.

Romania and Bulgaria joining the EU in 2007 saw a rapid development of the farming sector (Maler 2014). In 2005 the government passed a law that restricted ownership of agricultural land by foreign individuals in Romania (Moga and Antohi 2012). However, subsidiary Romanian companies could be registered while Romania's general rise in interest in farmland by large-scale investors driven by the commodity boom coincided with the EU accession. The accession and the start of CAP agricultural subsidies for farmers operating in Romania furthered interest for some actors in farmland investments. It offered investors more institutional stability, easy access to the EU market and subsidies for farming (Ruitenberg 2014; NAI 2015; BRD 2015). Private equity funds, joint-stock companies, fund-like structures and more private farmers were entering the market in this period. Domestic and foreign subsidy hunters also emerged, who turned the crisis into an opportunity. More reputable domestic farmland intermediaries appear in this stage, while private farmers, having acquired experience with the Romanian land market provided more procurement and brokerage services for institutional categories of investors.

The conjuncture of a global and regional boom and the EU accession created a strong land rush in Romania, initially facilitated by the optimism from the real estate boom years and subsequently stimulated through the land acquisitions by companies with foreign capital. The volume of agricultural land transactions increased from an annual average of about 100 thousand ha, in the period 2002-2006, to about 200 thousand ha, between 2007-2012 (Alexandri and Luca 2014). There was a "very strong increase in the amount of land that had been transacted between 2006-2010 (Swinnen and Vranken 2010) in counties such as Buzau and Prahova (South). Another reason for the increased transactions starting 2005 came as a result of increased labour outflow (due to shortage in employment possibilities in the rural area and comparatively higher income possibilities in urban areas or overseas) from the agricultural sector and direct payments as a result of the forthcoming EU accession in 2007. A fund manager sees 2007 as a defining watershed of farmland investments in Romania (A 2015). He states that individuals and small companies focused on capital appreciation before 2007, while after 2007 "more professionally financially-structured entities" started their operations. This wave can thus be defined as a pre-accession and post-accession wave (2005-2007 and 2007-2010).

Wave III. 2010-2016: Slow-down of investment

After the financial crisis a slow-down period was also registered in Romania. Because there was not as much return to be expected from land appreciation after 2008, investors sought to cover the difference through an operational profit. Indicators of farmland investment such as rise in land prices, and number of big transactions decreased according to Savills (2016). A variety of factors contributed to a slowdown (not to a stagnation) and for the buy and lease model to not be an advantageous model anymore. As one interviewee notes:

“You could not expect an appreciation anymore or no one could guarantee you a significant appreciation anymore, more than 3-4%/year (…) without putting in any effort. And then an investor would prefer to cover the return difference through an operational profit. And then he is somehow forced to compact the land and to try to undertake operational farming activity” (A 2015).

He further argues that the imposed preemption rights and transparency created in the land market starting 2014 deters investors with a passive buy and lease model:

“The law 2014 was beneficial and this is why transactions decreased. It has chased away opportunists who only wanted to speculate on the land. It is not possible anymore to buy the land and sell it for a higher price. More transparency is created through this law also with the fact that all transactions over 20 ha are published on the website of the Ministry of Agriculture and new investors need to have a model in which they seriously calculate return options and risks. If until 2014 the buy and lease model functioned, now it is not working anymore, it does not give returns to any type and structure of investment, because it simply does not guarantee you anymore that when you want to sell you will be able to, because if you want to sell 1000 ha you may have 1000 potential preemptors, neighbours or other lessees. This means you address a large number of potential buyers, which may block you from exiting, because you will have different prices, as each parcel of land is seen individually in Romania. So all this selling bureaucracy does not generate for you a sustainable buy and lease model that is liquid and possible to administer very fast” (A 2015).

Another interviewee concludes on how the different categories of investors need to be considered:

“It is very foolish I think to portray farm investments as a sort of low risk, low volatility, one direction, only capital appreciation play, which many people have done for many years unfortunately very successfully, because it was obviously a very straightforward line and what’s happening today (after the financial crisis) is that people wake up and find out that, you know, that some of these tenants walk away and they can’t afford the lease anymore, volatility is back in the game, food prices have corrected significantly. All of this brings us back to the old days of farm investment. So, there’s good news and bad news. It’s bad news in the sense that it is scaring the traditional large-scale investors, because they are waking up and things are not that simple, you know, as they thought they would be. At the same time it is attracting people who have no choice but (farm)” (F 2015).

Transactions in this period decreased between investors and local villagers as one interviewee argues (G 2015). The farmland transacted was mostly among investors from previous waves and the present wave, with properties that have a clean legal history (G 2015). He underlines that those transactions could be counted along the years as foreign investments, which had transparent documentation and foreign investors' priority starting the second wave, was to achieve this transparency by clearing issues of ownership titles, measuring their fields and registering them in the cadaster:

"Looking at how much farmland is controlled by foreign investors, everyone looks at the sum of those transactions that are accessible thanks to the transparency of the documents. So then, looking at the transactions, people have counted one and the same parcel of land, that has been sold to three other successive owners and in that case of course, the sum of transactions doubles or triples. To have a clear overview you would need to take the sale contracts from all notaries and quantify all transactions and exclude those, which refer to the same parcel of land" (G 2015).

Consequently, our interviewee points to the fact that in this period no major transactions were undertaken and much less so, transactions where new farmland was bought directly from local owners:

"The transactions that take place at present are those investors entering the market in the early 90s, who have compacted the land over the years by changing the ownership 3-4 times, and sell the freehold estates in one piece of 1000-3000 ha. So typically, share deal type of transactions happen currently in the market, where the piece of land is bought in one transaction rather than asset deals, where the land is bought piece by piece" (G 2015).

He also makes reference to indications that 40% of farmland is controlled by foreign investors (TNI 2015), underlining that this value cannot hold possible, considering that one and the same parcels were being transacted among different foreign investors. Several other interviewees mention that the accounts of 8.5% of farmland being controlled by foreign investors, as declared in 2011 by the Ministry of Agriculture, the only official statement made (Actmedia 2011), holds largely true. One interviewee indicates that as much as 20% is controlled by foreign investors and another interviewee argues it is even less, considering the insecure ownership titles for some of the plots.

Further affirmations support the assertion that transactions have decreased, and transactions take place between first wave investors and present wave investors:

" (…) The Italians are now massively selling. They bought those lands for 50 EUR-120 EUR/ha. They've been developing, they've been farming, they are getting older and now they are taking profits and what you see there is more Hungarian, Czech and German people coming in. The Danish, same story, they are moving out. The Italians, they're moving out" (H 2015).

Funds established in the early years after the crisis have come to their exit phase and investors who invested before, from the mid-2000 towards the end of 2008, have come to the closing of their funds:

"(…) Many of these investments are coming now to a fruition phase when usually with a 10 year timeframe, many of those investors are managers, they have to close the funds, they have to conclude the investment period and they have to return capital to the investors (…) So what you see today in the market, and this is especially the case, you see this in South America, you see it in some cases in Eastern Europe as well, but you can see it in many other markets in general, is that some of these managers are now closing those funds, and selling the assets, and obviously the main challenge that they face is, as you know, we have seen crop prices going down for the last two or three years and this impacts obviously the farm income, and as you know the value of farmland in the long term, has a very high correlation to the farm income, which makes lot of sense. The challenge today is that you see these investors are trying to exit at a time when farmland values are under pressure. This is bad for them but this is also a new opportunity for investors to come in. So what we see today, and this is happening all across the world, is that, if you are an investor willing to buy farms today, then you can get some discounts, compared to the price of the last 1-3 years, depending on the market, so you know, that's a good window of opportunity for investors" (C 2015).

A phenomenon that was visible in this period was the non-cultivation of certain arable land areas, areas, which are quite significant in size. According to the 2010 census of the National Institute of Statistics about 1350 thousand ha of land was left idle (Alexandri and Luca (2014). The idle land is kept in good agricultural and environmental condition, for which direct payments are received while uncultivated land is waiting for future real estate speculations. More than 2 million hectares agricultural land were not cultivated in the year 2009-2010, and farmland did not produce anything to meet the population's consumption needs. Interestingly, Alexandri and Luca (2014) find that uncultivated areas are mainly found in farms with fewer than 20 ha. Thus, 50% of the uncultivated agricultural land is in the segment of farms under 10 ha. The uncultivated land phenomenon seems to have grown larger having increased in 2010 by 74% compared to the year 2002 (Alexandri and Luca 2014).[7]

In 2014 Romania officially granted foreign citizens the right to directly purchase farmland. Prior to this date foreign citizens were allowed to buy farmland only after setting up a legal local entity. Pre-emption rights criteria were also redefined and the requirements could delay or prevent in some cases the acquisition of farmland (Bazavan 2016). The widespread concern that the liberalization of the

[7] In addition to this as one interviewee indicates: "This is why in 2008-2010 3 M ha were uncultivated. This was farmland that was partly sold, transacted, but those who bought it did not see an objective in the operational activity but they were simply trying to benefit from the value increase of farmland in time, with the associated risks. 20% of these lands had cadaster so these type of investors took the risk to find a buyer that accepts this situation, to take over the risk and to find that there are pieces of farmland that overlap, or that the title owners are not the righteous owners or that there was a problem from the time the title had been emitted up to the last sale contract registered" (A 2015).

market for EU citizens would lead to much feared land-grabbing seemed to not be confirmed argues Bazavan (2016). Consolidation of farmland became even more expensive and time-consuming according to an asset manager (G 2015) and as a consequence was another reason for reduced transactions in Romania. Consolidated areas of a few hundreds of hectares were being sold to large farmers and investment funds, as all the procedures required for buying up a small parcel "is not worth the investment for a private person" (G 2015).

Interviewees also conclude that several categories of private farmers e.g. Danish, seek to retire and exit the market, in their case as a consequence of changed credit policies. The strict equity and capital requirements for banks following the financial crisis forced Danish farmers to pay back their loans, which is why many of these were selling farms in 2015-2016. A variety of business entities were present in the farmland investment market during this wave, with asset management companies more actively engaging in collaboration with experienced Western farmers or companies.

3. Farmland investors and business models

A wide range of actors invests in primary agriculture at a global level. Luyt et al. (2013) identified in their study a more recent phenomenon of investments undertaken by private equity funds and other institutional investors in European and Central Asian countries. Within our research we identified a number of different business entities that started acquiring farmland and engaging in activities related to farmland investments in Romania since the mid-1990s. Among the interviewed companies in addition to private equity, joint stock companies are present, fund-like structures, financial intermediaries, asset management companies, farming companies, club deals, where the structure is not an institutional fund-type structure but a private partnership type of structure, mixed asset managers and brokers (who may intermediate co-investment), limited liability companies, public limited companies, holding companies and mixed operators-broker-consultancies or joint ventures that combine farming expertise with land procurement expertise. This variety of business entities establishes one or more investment vehicles in Romania, usually a SRL (limited liability company).

Research until present has mainly focused on identifying the capital source as an 'investor'. Luyt et al. (2013) referred to pension funds, endowment funds, family offices and high net worth individuals (HNWIs) as well as sovereign wealth funds as the main investors. We convey the understanding that 'investor' generally implies a set of actors with different expertise and roles in the farmland investment chain. In this sense, a pension fund, endowment fund, a family office, a HNWI as well as a sovereign wealth fund, is the capital source for an investment. This distinction is important in order to understand the structure of farmland investments and to be able to focus future research on in-depth analysis of the role of each of the entities and their interconnection.

The capital/funding source or capitalization structure for business entities is secured through capital from external funders (capital partners) and each firm seeks to identify its optimal mix of financing. One main element driving the need for capital funds from outside sources, is the size of farms but also a specific combination of farm characteristics, such as asset composition, the nature of products and the productive process. Furthermore, these characteristics may be combined with features that are attractive to outside investors. In the case of Romania features that underpin the value growth in land prices represent this attractiveness. These features are related to untapped value growth, consolidation opportunities because of high fragmentation (bringing the plots together from a production and/or ownership point of view), conversing leasehold to freehold farmland, conducting investments in irrigation and storage infrastructure, the opportunity to close the yield gap by bringing abandoned land into productivity, subsidies, which are still increasing in CEE countries and another value driver would be the convergence of land prices towards Western European levels.

As we have mentioned in the different waves of farmland investments, the categories of farmland investors have changed and evolved over the years and so have their business models. One interviewee explains what the focus of the first categories of investors mainly was and what it is currently:

“Perhaps 10 years ago, the investor focus was very much around land aggregation and consolidating plots and sorting out issues around title and freehold (…). Now it’s more about operating commercial units because there are big commercial units available” (E 2015).

Farmland may be purchased by business entities together with or on behalf of capital partners and two main models are undertaken: buy and lease and own and operate (including the lease and operate). We will now discuss the presence, possibilities as well as limits and tensions of each of these models, including how investors adapted their models in time within Romania.

The **buy and lease model** (own and lease-out as more widely referred to) or propco (property company) implies a pure investment in farmland (not in farming), where land is purchased and leased out to a farmer. The returns generated in this model are from the lease rents and from the land value appreciation over time. This model is considered to be low risk because the investor is largely shielded from the direct operational risk (commodity price, agro-climatic conditions), however the cash returns for the owners is low, around 5%, as part of the return of farming stays with the farmer who leases the land and bears the risks. The buy and lease model has widely been applied by farmland investors in countries such as Canada, US, New Zealand and Australia with quite good return from rental payment and return from land appreciation over the years (E 2015; cf. Fairbairn 2014; Magnan 2015).

In Romania, only a minority of farmland investors applies the own-lease out model. We found indications of a few companies using this model in Romania.

”[i]n general, people go to Romania to farm” (B 2015). Another interviewee indicated:

“There are few high profile passive landowners, (…), but my suspicion is that of the total foreign owners of Romanian farmland, it’s relatively small” (E 2015).

As one interviewee indicates, passive strategies apply in the case of large ticket sizes (the average ticket size refers to the trade size, or average amount spent for a certain farmland investment project):

“The larger the tickets in general, the more you will find that the investors prefer passive strategies simply because they need scale, they need to deploy large amounts of money and they can accept, they just have to accept lower returns” (B 2015).

The capital source for a buy and lease investment usually is institutional and comes from HNWIs or investment funds. A 10-year time horizon is the established period between land acquisition and the potential exit for these types of investors. These funds also typically invest higher amounts of capital than for instance family offices:

“The average ticket size for a family office would be 5 M EUR while a hedge fund has a typical entry size of 40-50 M EUR up to 100 M” (G 2015).

These latter types of funds however seem not yet to exist in the Romanian land market as of references from 2015. Most of the investments in Romania are private investments according to our interviewees.

There are various reasons for the limited use of the own-lease out model in Romania, in contrast to countries such as the US or Australia, some of which are global and other more related to the Romanian, or more broadly, the Eastern European setting.

Immature tenant market

The problem that hampers this model is that the tenant market in Romania is relatively immature compared to North America or Australia. There are relatively few professional farmers in Romania, who are sufficiently productive and professional as to bring stable rental returns for the owner (E 2015). This is due to the highly bipolar farm structure described earlier, with on the one hand smallholdings (too small and undercapitalized to lease) and on the other hand large-scale farms (which already control their own land), and just a small number of medium-sized, commercial farms who in western economies constitute the typical lessees.

Investors with a buy and lease model, would need to have a pool of sizeable farms who can pay the leases, so that in the case one lease farmer performs badly (default risk) and cannot pay the rent, investors can easily find a replacement. As an interviewee specifies:

"If you own a medium-sized area in Romania of over 3000 ha there is a problem of not having whom to lease the land out to. You need to have a sufficient number of actors able to operate and to pay the lease. If you already leased a large surface of 1000 ha to a lessee and you entered a default situation with him, there are not many other lessees who can operate this amount of farmland. One lessee may be able to operate part of that land but not the whole surface because they would need additional machinery which they do not have available. In that case, you lease to a number of other lessees but that comes with additional difficulties as working with hundreds or thousands of lessees, it becomes an administrative hurdle, which may be too costly, considering the small returns that you are looking for with this type of business model" (A 2015).

While the own-lease out model, is less common in CEE countries than in Western countries, even within the context of CEE, Romania has a weaker developed tenant farm sector than a country such as Poland, which entered the EU earlier:

"Even if you compare Romania with some other of the CEE countries like Poland, Poland has a much more developed tenant farm sector, there are some quite big and successful tenant farmland businesses. Obviously there are Romanian tenant farmland businesses, there are, but you know, the number is relatively smaller than I think other countries across the CEE and certainly much smaller than in Western Europe" (E 2015).

As a result of the lack of professional farmers with good agricultural performance and return, the cash returns of some 5%, normally sought by investors in countries like Canada and Australia, are not possible in Romania. One asset manager indicated that in most cases the cash returns are only 3-3.5% (G 2015). Another interviewee indicated a slightly higher return of 3.5-4.5%, which is still below the returns in the West, whereas the risks (of default for instance) are significantly higher in Romania.[8]

Aside, from the immature lease market, which is a structural factor, some changes occurred globally (economic ones) and nationally (economic and regulatory ones), which undermined the profitability of the own-lease out model during the period of the third investment wave.

Falling global commodity prices and declining rental payment

Another aspect putting downward pressure is that lease returns, which are linked to commodity prices, have gone down with global commodity prices in the past few years both in the West as in Romania. An interviewee states about the situation in Romania:

"The lease might be 600-800 kg of wheat/ha and since commodity prices have come off their peak, the rental prices are also low and stagnating" (E 2015).

[8] Another interviewee stated that an institutional investor might be "satisfied with a 2-3% cash return from the lease, which would mean for 10.000EUR/ha a lease of 200-300EUR/ha" (G 2015).

Cash returns from leases are very low while the risk of not receiving the lease payment from a domestic farmer is substantial, and even increased due to lower farm gate prices.

Slow-down of appreciation after EU accession

In Romania, when land prices were still very low and Romania was in the process of accession towards EU membership, there was a lot potential for passive farmland price increases. The promise of increased ownership security and economic growth caused by EU integration drove up land prices. Active management of the farmland was thus not necessary for someone who was searching for a low return of 5% as that return was ensured without being an active farmer. However, after EU accession this changed:

“The only buy and lease back model that could be undertaken, was before Romania joined the EU, now it is not possible anymore. When you made an investment with risk, for 2000EUR/ha and now you lease them at the level of the subsidy, at least” (A 2015).

However the passive business model of buy and lease, without investment in active asset improvement (improving soil productivity, improving infrastructure, consolidating land), does not seem to be effective anymore. As we will discuss in the next section on the own-operate model, land appreciation through active asset improvement, can be divided in strategies, which have more of a a.) Land management character and which do not require agricultural knowledge, e.g. land consolidation, building infrastructure and are b.) Strategies that are mostly done in combination with farming (and require more in-depth agricultural knowledge and capital), such as soil improvement or constructing irrigation. Within the own-lease out model, some companies seemed to engage with the former strategy, but little with the latter.

Problems upon exit, land regulations and lack of big buyers

Liquidity is a corner stone of the passive appreciation-driven returns of the own-lease out model, which can only be fully realized with an open sale at the end of the investment project. This liquidity is undermined by the fact that there have been hardly any institutional investors active in Romania (certainly in the first two investment waves), to buy up large land holdings offered for sale. Thus in the buy and lease model in particular, but also generally, there is a problem of liquidity diminishing the return potential. To be able to transform the land appreciation into cash and pay dividends, the investors should be able to exit. In the last investment wave some institutional investors have become interested in Romania, but now new land regulations hamper the sale of landholdings to outsiders.

The new regulation of 2014 restricting the free sale of land (by giving neighbouring farms a preemption right) has negative consequences for companies using an own-lease out model. Especially in areas with numerous professional farms, which would be an ideal setting for the own-lease out model, in terms of demand for leased land, the new regulation undermines a large-scale own-lease out model:

“These are usually good agricultural areas with strong farmers, capable of working your land and paying the lease but at the same time these lessees will also be your biggest competitors, since they have the preemption right before you do”, as A (2015) suggests.

“So, you cannot buy anymore land there, because any plot of farmland that appears for sale, is already leased by another farmer and that farmer has priority of purchasing the land before you” (A 2015).

As an outside investor you are blocked upon entry in the market, you may not be able to buy large surfaces anymore, as you have an inferior position compared to all other members in the community:

“So you will not know when you will be able to buy the next hectare. Upon exit you have the same problem, you do not have buyers to sell to, because you loose negotiating power. If you own 1000 ha you potentially have 1000 preemptors, neighbours or other lessees and these may block you from exiting because you will have many different prices. Each parcel of land is seen individually in Romania, which may cause a huge bureaucracy upon exit. So it is not valid anymore to say, today I buy and in a few years I can sell for a profit” (A 2015).

The Law 17 passed in 2014, thus, as intended, deters opportunistic investors who speculated with farmland. A fund manager (A 2015) underlines that the buy and lease model can present a difficulty for an investor who does not develop the local community as there will be no potential farmer to purchase the land upon exit. The new regulation has drastically reduced the liquidity of farmland, which can stimulate investors to engage more with the local farmers or not to engage with the buy-lease model (or land acquisitions at all).

Speculation: critical attitudes towards the own-lease out model

The buy and lease model is also undertaken in a way that is considered to be speculative, as these investors are regarded as passive farmers in the case that they do not invest in infrastructure, soil improvement activities etc. Speaking about private equity companies who apply a buy and lease model, one financial consultant stated:

“They are not so much interested, even if they say they are, without mentioning names, (…) they are not interested in farming they are just seeing it as a financial product. Of course they make a big story around it (…) but in the end they are bankers” (I 2015).

Most interviewees have a rather negative view of the buy and lease business model.[9] When the term land grabber came up in interviews, various interviewees referred to the companies that undertake the buy and lease model without investing in machinery, storage infrastructure and soil improvement activities. Also, sometimes they refer to this model calling it speculation (although speculation is mostly used to refer to companies who used to buy land in the mid-1990s early 2000, did not engage in farming themselves and sold it on benefitting from a land price increase).

Shift towards own-operate model

As we noted earlier, while globally land appreciation was the main business model, the food crisis and consequent structural food supply equilibrium to sometimes even a surplus situation has made this model less profitable (B 2015). There is downward pressure on rental payments and land appreciation.[10] As an interviewee indicates, in order to achieve the same returns as during the commodity boom years:

"[l]arge institutional investors are forced to accept a much higher degree of risk (..) could see a bit of a shift from plain vanilla passive business models, (…), to conventional farming models, where you actually employ a manager to farm the land that you own, rather than just leasing it to them (…). But that is something, which has not only to do with Romania, that is a global phenomenon (…)" (B 2015).

Other interviewees also observed the shift towards an own-operate model, with landowners gradually become 'farmers'[11]:

[9] An alternative view was presented by an interviewee, who clearly dismisses capital appreciation through active operation, to be land-grabbing: "But in my experience what uninformed people tend to misjudge is just the amount of capital that is required to actually farm the land and you know the risk that is associated with that capital in the production process. So, you know, you got to separate out clearly the land grab motivation as opposed to actual reliability of returns from farming year on year. I think the land grabbers, we have come across them before, are slightly unsettled by just the sheer amount of capital it takes to farm large areas and the risk associated with that" (F 2015).
[10] While returns of low-risk models in agriculture have gone down, in the general economy returns on investments have also gone down so "one of the asset classes that I think is going to benefit from that is agriculture. It is certainly timber but it is also agriculture" (B 2015).
[11] "(…) will say the vast majority are also farmers or became farmers throughout the process. Definitely there are new players coming in, trying, which I am seeing by judging from the neighbouring farms, are also farmers. (…) I mean in the background of what we see farmers, in the background there are institutional investors but regardless, institutional investors invest in agricultural expertise, and they go into operations. That makes them farmers. We are a case like that. Not really institutional, but we sort of manage a pool of shareholders, private company of course, that has invested in this. Very large institutional investors that have invested from the beginning, maybe they have some difficulties with their mandate for farming but that doesn't mean that they can't find ways to either use local contractors or local agronomical expertise companies to do that for them" (J 2015).

“In the early days you would see that the investors who invested were not farmers but in the last years the trend has changed. Most of the foreign investors that we know and are in contact with, they all enter into operations because they are forced to buy a farm because it is difficult to buy large plots that would provide a decent return. If they do not have the expertise, they try to bring the expertise from abroad” (J 2015).

Next to the problems with commodity prices, we have discussed a wide range of obstacles on the level of the CEE countries and/or Romania in particular; the immature tenant market, the slow-down of appreciation after EU-accession, the problems of exit due to land regulations and lack of big buyers, and the mounting negative perceptions of this particular business model (within the general critique of foreign land investment as discussed in wave 3). Except from the immature tenant market (which has no substantial impact on the own-operate model) all these factors do also affect land investors with an own-operate model, but less so.

Own and operate model or the opco (operation company) is someone who is interested in the production, that means they need surface but are not necessarily interested in buying land. They can own the land but the large majority in Romania leases (in) land from the state or from private landowners, applying a lease and operate model (G 2015). Own an operate is the most popular business model in Romania and CEE, as investors are a.) Looking for land appreciation and b.) Leasing it out can be difficult as we discussed above. The structure of post-socialist Romania, where many buildings and irrigation structures had fallen in disrepair and were in need of investment support these types of investments. Interviewees also regard this model as the most suitable and most widely present business model in Romania, in which the farmland asset is actively improved. In principle, the advantage of this model over an own-lease out model is that the returns tend to be higher, as all profits of agricultural production go to the investor (rather than only the rents). On the other hand, the risks are higher. According to an interviewee, in Romania the income returns are 5-7%, returns that are much higher than the 2-3% one would get in Western Europe (CA 2015), but again risks are also higher (as we will see below).

Foreign investors may also enter lease contracts with local landowners or the state. Investors who apply the lease and operate model are typically small to medium-sized Western European farmers, from Germany, Austria and Italy. They lease land between 3-10 years[12] and start farming. Most of their land is leasehold and not freehold land as the interest for this category of investors is the operational income:

[12] In general, in Romania lease contracts can vary in their period from an average of 2-5 years in the Western part of the country (Timis and Arad) to 5-10 years in the Eastern and Southern part of the country. The reason for this is that in the Western part of Romania prices increased quite well compared to other areas and local owners would like to have the possibility to sell their land if they can. The lease and operate contracts based on concessions from the state through the ADS (Administratia Domeniilor Statului-Administration of state-owned land) are usually for the longer term, 20-49 years.

“Of course they are trying to buy a few hectares here and there but for this group you will never see a massive acquisition of land” (G 2015).

“The biggest size of this type of investor you would see in Romania is 5000 ha; most of these types of investors if you look at the Romanian farm in operation it’s in the range of 500-3000 ha” (G 2015).

There are also asset management companies that administer funds for institutional investors and lease farmland from the state for longer periods. Some investors start with a lease-operate model, with the aim to shift to an own-operate model. The reasons for that can be that investors do not want to (or cannot) spend a lot of capital in the beginning (which is likely to be the case with small and medium-sized farmers) or because it is difficult to find the targeted acreage of farmland, directly for sale. A fund-like structure for instance intended to apply the lease-operate model with the objective to purchase the land on a gradual basis and look for capital appreciation (F 2015).

Profitable land management and high risk farm operations

The land management part of the own-operate model, in particular aggregating land parcels into larger, commercially suitable, land holdings, seemed to be a relatively successful model in most cases during the first two farmland investment phases. This strategy was profitable according to one asset manager, “(…) providing that they (investors) were very disciplined in their strategy on the location to buy land and the land processes that they have followed to consolidate” (E 2015). He continues, arguing that those investors who have allowed local intermediaries to purchase scattered land with the promise to have this land consolidated in a few years, may not have been as successful with the land management:

“I can think of a few examples of people who have allowed land buyers, unscrupulous local facilitators to buy them small plots of land scattered over vast areas of the county, which they will never be able to consolidate into a sensible plot. To be successful in the land process is all about having a very tight command area in which you’re willing to buy land and being very diligent about your land processes and not sacrificing that for speed of wanting to acquire and ending up with a big fragmented land area over a big area. (…) there’s obviously been a lot of passive land price appreciation, land prices have gone up a lot in the last several 3-5 years anyway. So generally those people have been reasonably successful. I think operationally it’s much more of a mixed bag” (E 2015).

After years of purchasing farmland piece by piece and consolidating it to larger plots, pioneer investors sold their farmland to next generations of foreign investors, having cleared the legal issues of ownership along the way, having consolidated the land more and having reached a scale that is sufficient for operating at present.

Important factors in driving up the value of farmland

The location is important for this category of investors (but even more so for the buy lease model), especially the category of farms that are around it. A high quality farm estimated at a high worth raises the value of estates in the area. The fact that the presence of other high quality farms in the vicinity has a strong impact on the value of farmland is an indication of the strength of real estate rather than operational (farming) considerations in valuing farmland. This influence of neighbouring high quality farms resembles the influence of flagship stores driving up the average price of real estate in a shopping mall.

Infrastructure is important, in terms of bringing inputs to the farm and transporting production away from the farm.

With the compaction of farmland (using the own-operate and particularly the own-lease out model), investors probably generate the highest value as one interviewee indicates. Finally, the degree of the land that is freehold/in ownership is important:

"The growth these investors see is in farmland prices rising after having invested in infrastructure, after having compacted the parcels and reached at least 75% ownership and then an exit with sale to an institutional investor'' (G 2015).

In contrast to property management, making the farm operations work profitably according to the initial targets proved often more difficult than expected. An interviewee explains why from an operational point of view some investors may have expected to reach 5-7% returns much faster:

"I think people have been maybe overly ambitious about how quickly they can get there, how much investment is needed to turn around land, that may not have been farmed for the last 10-15 years, the cost of removing soil compaction, de-cultivation, applying lime, applying fertilizers, sorting out, you know big weed banks in the soil from the land not having been cropped for over 10-15 years, so I would say the operational track record is more mixed" (E 2015).

"Overall, companies often have been more successful in the land ownership and consolidation part, than in the operational part" (E 2015).

Of the foreign farmland investors who are strongly involved in farming, either in the case of an own-operate or a lease-operate model, 90% of the foreign investments are failing according to one of our interviewees. An important risk is the climate, which many investors seem to have underestimated similar to foreign investors further East in Russia and Ukraine (Kuns et al. 2016). Another interviewee confirms this, informing us that they tried to set up a mix of propco and opco venture but one of the principle issues that they faced was climate. Within their investment model this risk had to be mitigated through irrigation of some crops:

"… (the) project didn't fly is because of the reliability of farming returns year on year and that's before you'd consider the volatility in the commodity grains prices, which of course at the moment are pretty low…. It's not much money to be made, probably not enough to attract necessarily investors" (F 2015).

Despite the high risks, and unsatisfactory profits, investors feel forced to increasingly engage in farming, as otherwise it is difficult to increase land values further, following the early years of record land price increases before EU accession.

Need for land improvement

In contrast to countries such as the US and Australia, with a long history of commercial farming and farmland improvement and consolidation, in Romania land appreciation is difficult to realize over a longer term without engaging actively in land development and improving farm operations as was earlier argued in the section on the buy and lease model:

"Intellectually you can say ownership and operation of farmland are two different things, and they are in some parts of the world where the market is very well developed, like in the USA, the model of separating the two works really well and who knows, in 20 years time, that might work really well in Romania, but I think given where Romanian agriculture is at today, there is an obvious synergy between the two, because so much of the land improvement and consolidation story is a result of active management" (E 2015).

As the name of the business model indicates, 'own' refers to management of property while 'operate' refers to the active management of the farm. In Romania these model elements are highly correlated. This is the case in many post-socialist countries. De-collectivisation and the parallel economic crisis, as discussed earlier in the paper, caused farmland fragmentation and abandonment. In Romania, due to restitution and a large rural population, fragmentation was particularly strong. As a result, in order to enable efficient cultivation and an increase in land value, farmland needs to be cleared of bushes and weeds and the soil needs to be prepared for production.

Understanding farming gives an investor a competitive advantage as an interviewee mentioned, and this competitive advantage is for the benefit of investors who understood that the own and operate model is the most suitable in the long term:

"Own and operate means that you need to have an understanding of farming, you need tractors and you need to know how to grow seeds. So what you see is that the majority of investors is more big agronomic farming companies, operating companies and then they use funds-could be provided by investors, could be provided by banks, by debt finance, and they work the fields. That's the basic point I have to tell you. It's own and operate today and land consolidation can be done but not as a business model" (H 2015).

The land consolidators seem to have succeeded in generating return, but in terms of the operational play a different skill set is needed and some investors may have not been clear from the beginning if they wanted or could establish a farming business, if they will have the right people in place to operate the farms, one interviewee mentions. Another interviewee expands on this idea saying that the business model typically matures along the years (just as much as the land market also matures):

"I mean initially you go into a largely undiscovered country and you go in there with the expectation of making a lot of money from capital appreciation because you don't know whether you're ever going to make operating profits so that was the first wave. Initially, Italians that I've described, also a second wave of Germans going in, you know, buying from these guys, and to a degree that people learned to farm the land and they understood about climatic conditions, they understood about the drought risk, they understood about mitigating the drought risk, implementing you know proper farm development programs, you know, quite a bit of capital being deployed, I think today, certainly in some parts of Romania you have cutting edge farming technology, you know, farming infrastructure, so in that sense (…) Romania has gone way beyond that initial (…) Wild West type of investment" (B 2015).

In this sense one investor whose main business strategy was land appreciation, could see no other way than farming it in order to achieve the desired land appreciation, and so they established a joint venture with a British farmer. In terms of an investment strategy that does not seem to be far spread, one interviewee considers it to be the best investment strategy: "co-investment alongside good farmers, which also is the best risk-adjusted return strategy" (B 2015).

Summarizing the arguments, many investors entered into farming, not by desire or plan, but felt compelled to take on farming when it appeared that enhancing the land value appeared difficult without a farming component. Kuns et al. (2016) and Visser (2017) observed this development also in Russia and Ukraine. For a minority of investors however, farming was the main aim from the start. These are the ones with a lease-operate model.

4. Conclusions

In this paper, we aimed to present a more dynamic picture of farmland investment than has been presented as yet, by taking a historical approach and subsequently distinguishing several investment waves as well as various business models and their respective possibilities and instabilities.

By taking a historical approach we distinguished various phases of farmland investment which we define as waves, rather than only applying an analysis of the period 'before and after' the global food crisis. This showed that substantial foreign investment started before the global commodity boom in the mid-2000s (although still rarely undertaken by large and institutional investors), in a first wave driven by the country and regional (CEE) context of land becoming available for investors, due to post-socialist privatisation of farmland and the perspective of upcoming EU accession. The global commodity boom did not only cause the rapid influx of large investors and rise in land prices in the second wave, particularly in the years 2005-2007. A rapid influx was also related to the closing phase of EU accession with investors rushing to buy land as prices were expected to soar once Romania was a EU member, (promising a more secure institutional environment, facile export of produce to the EU market, and agricultural subsidies).[13] In the third wave, the decline of global food commodities and the country–level factors (the land price rise due to EU-accession that faded, and increased regulation of the land market) have led to a slow-down in the rise of land prices.

In explaining why a farmland rush occurs (and how pronounced it is) or why it wanes in a certain country, at least the following factors are important: First, the well-studied factor of global economic trends in agricultural commodities; second, domestic policy and laws regarding farmland and agriculture. Various countries worldwide have lately introduced policies to limit foreign investment (e.g. Brazil, Australia), or investment by large institutional investors (Canada); third, the development of the domestic land market (first mover advantage in the early stage, versus saturation of the market, i.e. most low-cost land has been acquired already); fourth, the investment cycle of farmland investment companies (after 7-10 years the funds aim to exit). As many investors entered in the same period, many also reach to a phase of exit simultaneously. This gives a new dynamic to the land market.

In each of the waves of farmland investment, certain types of farmland investors and business models were dominant. During the first wave, the degree of corporatisation and financialization of farmland investment was still low (many investors were Western-European farmers or Italian land acquirers), while over time more complex and/or highly capitalized investment entities, such as High Net Worth Individuals and institutional investors, entered.

Next, to a more dynamic picture of the drivers and chronology of the global land rush, we also aimed to unpack the rather homogenous picture of the 'investor' (Ouma 2016), trying to present a more diverse, as well as more temporally dynamic picture. We set out to unpack the notion of investor, by studying primarily the business models, as well as the business entities applying them. In this sense, we build on the insightful studies by Fairbairn (2014) and Isakson (2014) who distinguish various business models and their particularities. We have furthered this line of research by looking into the tensions and limitations of each business model, as recently done by Kuns et al (2016) and Visser (2017) for Russia

[13] Investors were often comparing Romania with other CEE countries that had accessed the EU earlier (such as Poland), and generally expected Romania to take a similar course. The narrative of post-socialist countries moving closer to the state of affairs of the EU core (with high land prices, mature rental markets, good institutions et cetera), has probably been just as important as the global commodity boom as a point of reference in investor decisions.

and Ukraine. In addition, we have studied, as these authors did, how investors change their business models over time, for instance transforming from pure land acquirers into farming operators. We furthered the latter research by presenting a situation with more diverse business entities, business models and transitions between those models.

Fairbairn (2014: 10) argues that: “contrary to simplistic portrayals of recent large-scale farmland acquisitions as either productive or speculative (...) they can be, and frequently are, both at the same time.” While in some regional settings such as Brazil, production and speculation can go hand in hand easily, in other settings this is more difficult to achieve. Kuns et al. (2016) found that foreign investors faced many difficulties when they tried to add a more full-blown farming component to investments that initially prioritized speculative motives. Our research confirms that production and speculation are not so easy to intertwine. However, in the case of Romania investors faced less disappointment in terms of land appreciation than in Russia and Ukraine (mostly because EU accession drove up land prices in Romania), and the transition to another business model seemed easier, due to for instance the somewhat more developed land market. The use of the own-operate, lease-operate and own-lease out models or a combination them, are dependent on the land market context and the regulatory procedures applied in a certain country. This underlines the importance of addressing the broader historical, geographical and socio-economic context of the country and the stage of the land rush, when studying land investment.

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