



## **Key Issues and Developments in Farmland Rental Markets in EU Member States and Candidate Countries**

### **ABSTRACT**

In this paper, we describe recent developments in the rental market for agricultural land in selected EU member states and candidate countries. The analysis focuses on the importance of the rental market as well as on the evolution of rental prices. It appears that the share of rented land in the total utilised agricultural area varies considerably among member states. In the old member states, the share of rented land ranges between 18% in Ireland and 74% in France, while in the new member states (NMS) it ranges from 17% in Romania to 89% in Slovakia. For the former, different strategies to provide tenure security to tenants can explain differences in the importance of rental markets. Changes in the significance of land rental have also reflected changes in institutions and in economic and political conditions. In the NMS, diverse approaches to land reform have resulted in assorted ownership structures and hence in differences in the share of rented land. Regarding rental prices, governments impose price restrictions on agricultural land rents in some countries, such that large divergences are observed in rental prices between and within member states.

FACTOR MARKETS Working Papers present work being conducted within the FACTOR MARKETS research project, which analyses and compares the functioning of factor markets for agriculture in the member states, candidate countries and the EU as a whole, with a view to stimulating reactions from other experts in the field. See the back cover for more information on the project. Unless otherwise indicated, the views expressed are attributable only to the authors in a personal capacity and not to any institution with which they are associated.

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**Pavel Ciaian, d'Artis Kancs, Jo Swinnen,  
Kristine Van Herck and Liesbet Vranken\***

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## **1. Introduction**

The efficiency of agricultural land markets can be studied by looking at the incidence of sales and rental transactions, as well as the magnitude and evolution of land sales and rental prices. Theoretically, if markets are perfect and transaction costs are insignificant, then farmers would be indifferent in accessing land through sales or rental and the sales prices for agricultural land would be equal to the net present, productive value of land, while the land rental price would be equal to the marginal product of land. In that case, sales and rental prices would be expected to change in parallel. Yet this might not be the case in the presence of market imperfections.

In particular, credit market imperfections and transaction costs play an important role. First, where capital markets work imperfectly, land purchases typically have to be financed out of own savings. Second, where financial markets do not work efficiently or where confidence in money as a repository of value is low, land may be used to store wealth and may be acquired for speculative purposes. Third, in the absence of alternative investment or hedging options, land may be purchased or held onto as a hedge against inflation or as an investment asset. Fourth, with constrained access to credit, much needed capital is tied up by investment in land, preventing farmers from using these savings to invest in technology, equipment or quality inputs. Furthermore, people hold land for many reasons other than production, such as prestige value, lifestyle value and family traditions, with wealthy and politically connected households accumulating large tracts of land. Owing to some of these factors, land sales prices typically seem higher than the productive value of land (Binswanger et al., 1993). Finally, transaction costs (including the enforcement of property rights, access to necessary documents and approval by local officials) not only imply a premium that needs to be paid by the buyer, but also that significant losses can be incurred when buying and re-selling land, additionally preventing flexible adjustments of land use through land sales (Carter and Zimmerman, 2000; de Janvry et al., 2001).

Based on the above arguments, it appears that it is expensive and difficult for efficient producers to buy land, while market imperfections reduce the incentives for less efficient producers to sell their land. These factors indicate that land markets require a premium over

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\* Pavel Ciaian and d'Artis Kancs are working at the European Commission (DG Joint Research Centre); Johan F.M. Swinnen is a Senior Research Fellow at CEPS and Director of the LICOS Centre for Institutions and Economic Performance at KU Leuven; Kristine Van Herck is a PhD Student at the LICOS Centre for Institutions and Economic Performance at KU Leuven; Liesbet Vranken is an Assistant Professor at the Department of Earth and Environmental Sciences, at KU Leuven.

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their expected production value to be included in the sales prices. As a consequence, sales markets for rural land might be thin and sales prices do not necessarily evolve in parallel with land rental prices; market institutions and imperfections may influence these conditions.

In 2004 and 2007, ten and two countries respectively acceded to the EU in its enlargement with countries in Eastern and Central Europe. Until 1989, the agricultural sector in these countries was regulated, and dominated by large-scale state and collective farms. There were only two exceptions, Poland and the former Yugoslavian countries, where collectivisation largely failed, such that a considerable share of agricultural land was already being used by individual farmers during the communist era (Lerman, 2001). Because the history of collective land use has had a long lasting impact on the functioning of the land market and the region has undergone such radical changes in the past two decades, in discussing rental market developments in this paper we make a distinction between the old member states (OMS) and the new member states (NMS).<sup>1</sup> In addition, we highlight the most important evolutions in the farmland rental markets for three candidate countries: Croatia, the Former Yugoslavia Republic of Macedonia (FYROM) and Turkey. But it should be noted that the land markets of these candidate countries are analysed in more detail in the Factor Markets Working Paper by Bojnec (2011).

In this paper, we describe recent developments in the rental market for agricultural land in the selected EU member states, while another Factor Markets Working Paper, by Ciaian et al. (2012a), looks at recent developments in the sales market. We discuss the differences observed among the member states as well as the importance of the rental market (i.e. the share of rented land in total agricultural land) and the evolution of rental prices. For the analysis, we draw upon earlier work by Ciaian et al. (2010), Swinnen and Vranken (2009, 2010) and a questionnaire that was sent to the different partners of the Factor Markets project.

## 2. Importance of the rental market

The share of rented land in the total utilised agricultural area (UAA) varies considerably among EU member states (Figure 1). In the OMS, the share of rented land ranges between 18% in Ireland and 74% in France, while in the NMS it ranges from 17% in Romania to 89% in Slovakia (Table 1). In Turkey, approximately 39% of the land is rented, of which 21% is done so under traditional, fixed rental contracts and 18% under sharecropping rental arrangements.<sup>2</sup> In Croatia, approximately 42% of the total UAA is rented (Ministry of Agriculture, Forestry and Water Management Swedish International Development Cooperation Agency, 2006).

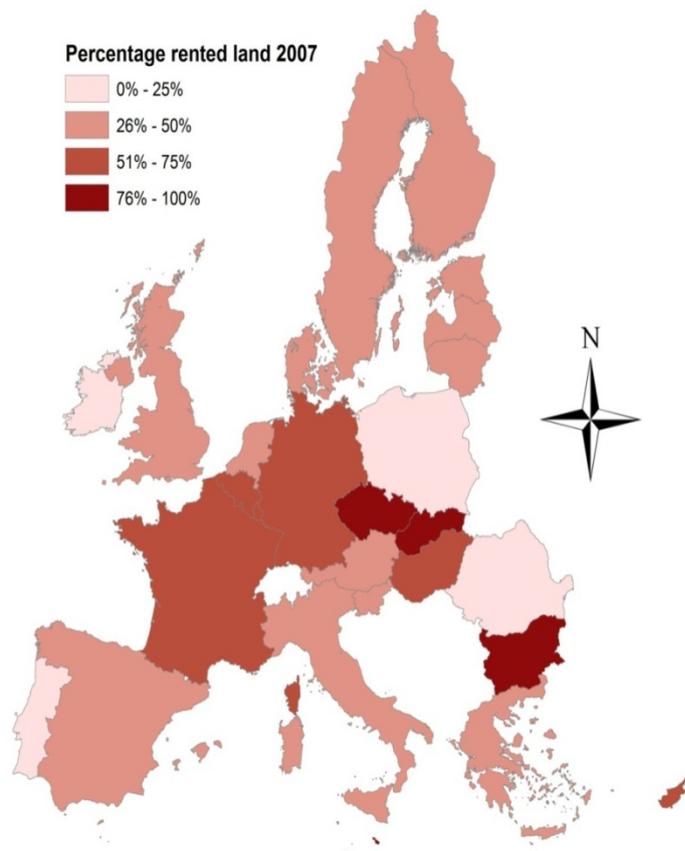
Figure 1 illustrates that the share of rented land is high in some NMS as well as in some OMS. As such, these numbers indicate that land renting can be an important part of modern agricultural systems. One of the main advantages of rental over sales transactions in these economies is that, in a capital-intensive production system, and with the possibility of using other assets as collateral, farms prefer to invest in new technology and farm-specific assets rather than tie up large sums of capital in land purchases. In Western Europe, many farms have both owned and rented land, and the proportion of such mixed land use increases with the size of the farm (Feenstra, 1992). In this way, farms in these countries combine not only tenure security (with their assets and long-term investment concentrated on owned land) and flexibility in land allocation, but also they free up capital for other investments (by renting additional land rather than buying it).

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<sup>1</sup> The selected OMS in this study are Belgium, Germany, Ireland, Greece, Spain, France, Italy, the Netherlands, Finland, Sweden and the UK. The NMS are Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia. The selection of these countries is based on data availability.

<sup>2</sup> Data for Turkey are based on survey results in the Osmaniye Province of Turkey by Özüdoğru (2011).

*Figure 1. Share of rented land as a % of the total UAA in 2007*



*Source:* Eurostat (Farm Structure Survey).

There are several reasons for the differences in the importance of rental markets among the EU member states.

In the OMS, different strategies to provide tenure security to tenants can explain distinctions in the importance of rental markets. In particular, the historical evolution of these rental arrangements provides some notable insights. The significance and nature of land rental has changed considerably throughout history. Historically, European countries were dominated by large landlord–small tenant relations, with weak bargaining power for tenants, resulting in poor tenure security and few tenant rights, albeit with substantial variations across the region.

Changes in the importance of land rental have reflected changes in institutions and in economic and political conditions (Swinnen, 2002). Key economic factors have included changes in agricultural profitability, with falling world market prices inducing distress sales by farmers (especially in the first part of the 20<sup>th</sup> century), and the emergence of non-farm employment opportunities, which weakened landlords' bargaining position vis-à-vis tenant households.

Still, the most critical changes have been caused by institutional and political shifts, affecting land taxes and tenure regulations. Early on in the 20<sup>th</sup> century, landlords dominated governments in Europe. With industrialisation and the distribution of voting rights to small farmers and tenants, all this changed. The result was increased land and inheritance taxes in some countries, forcing many landlords to sell part of their estate. In other countries, improved political representation for tenants led to new regulations, giving tenants more security of operation and better conditions in the event of contract termination, such as compensation for land improvements, automatic rights for rent renewal and first-buyer options.

In broad terms, one can distinguish two types of policy strategies to improve the situation of tenants. The first strategy was to improve the rental conditions for tenants through regulations. The second strategy was to help tenants become owners of the land.

The first strategy was followed in countries such as Belgium, France and the Netherlands, where rent regulations were introduced primarily with the aim of improving the tenure security for farmers. These were not introduced all at once, but incremental increases throughout the 20<sup>th</sup> century led to a situation where farmers no longer wanted to purchase land because their tenure security was very high, and they could use their capital for other investments. In these countries, the rental share is relatively high.

The second strategy, i.e. to help tenants become landowners, was the dominant strategy in countries like Denmark, Italy and Ireland. There, the government set up state funds to purchase farms for poor tenants or to subsidise the latter's purchase of land (or both), either directly or indirectly through regulating prices, subsidised loan conditions or tax benefits for purchasing land. Notice that in all of these countries, the share of land rental is relatively low. The most dramatic impact occurred in Ireland, where almost all land was rented at the beginning of the 20<sup>th</sup> century, having since declined to around 17% nowadays.

In the UK,<sup>3</sup> improvements in the situation of tenants followed from a mixed approach. The decline in political power of the large landlords resulted in important changes in the rights of tenants, such as the right to determine crop rotations, the right to determine the purchases and sales of farm products, and the right for compensation if they were to leave the land. Later on, additional rental regulations were introduced, as well as the creation of Land Tribunals for the resolution of conflicts between landowners and tenants. Another major change was the increase of land and inheritance taxes, along with the shift of income taxes from tenants to landlords. In combination, these policy changes contributed to i) better and more secure rights for tenants and ii) a decline of tenancy, as landlords sold their land to tenants.

In summary, the same policy objectives have led to different policies, institutions and tenure situations in the OMS.

In the NMS, diverse approaches to land reform have resulted in assorted ownership structures and hence in differences in the share of rented land. The most important land reform choices were restitution or distribution (in kind – actual plots – or in land shares), or a combination of both. These differences can have major implications for the role of rental markets in these countries.

A central difference between the restitution of land to former owners and the distribution of plots or shares to farm workers and rural households is that with restitution,<sup>4</sup> a significant share of the land is (potentially) allocated to individuals who are not (or are no longer) active in agriculture. They may be retired or living in urban areas. This has several implications for the development of land markets. First, there is probably more need for an exchange of land, since retired and urban households are less likely to use land than rural households that are active in agriculture. Second, restitution is more likely to lead to a consolidation of the large-scale farming structures (collective and state farms in the past, now corporate farms), because corporate farm management, which was the historical user of the land, has transaction cost advantages in dealing with the new owners (Mathijs and Swinnen, 1998). For both reasons, the restitution of land is associated with more land exchanges, including renting.

In addition, imperfections in input, product, credit and insurance markets affect the functioning of land markets (Vranken and Swinnen, 2006; Ciaian and Swinnen, 2009; Van

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<sup>3</sup> Strictly speaking, many of the arguments here on the 'UK' solely apply to England and Wales, since Scotland had somewhat different land policies.

<sup>4</sup> This has been the case in the Czech and Slovak Republics, Bulgaria, the Baltic States and large parts of Romania and Hungary.

Herck et al., 2011). Credit and capital markets play a crucial role, especially in land sales in the NMS. Capital market imperfections may constrain the efficiency of land sales markets in several ways. First, where capital markets work imperfectly, land purchases typically have to be financed out of own savings. Second, where financial markets do not work well or where confidence in money as a repository of value is low, land may be used to store wealth and may be acquired for speculative purposes. Third, land may be purchased or held on to as a hedge against inflation or as an investment asset in the absence of alternative investment or hedging options. Fourth, with constrained access to credit, investment in land ties up much needed capital in land, and prevents farmers from using these savings for investment in technology, equipment or quality inputs. These factors mean that the sales price for land will often be higher than the productive value of land. This usually results in a thin sales market and higher demand for the exchange of land through rental. Especially during the 1990s, credit market imperfections were widespread across all transition countries. These problems have been mitigated substantially since EU accession, as credit from banks and other rural financial institutions, along with contracts with agribusinesses, have reduced credit constraints for farms. Nevertheless, in many poor NMS these constraints remain very significant.

Transaction costs can also be high in the case of land sales, so land rental markets play a critical role in the exchange of land from less to more productive land users. The transaction costs include the traditional costs, for instance notary fees and registration costs. In the NMS, however, individuals who want to sell their agricultural land are sometimes also confronted by additional transaction costs, such as high withdrawal costs, insecure property rights and imperfect competition on the land market (Ciaian and Swinnen, 2006).

In any case, for most countries there is a difference in the share of rented land depending on whether data is obtained from the Farm Structure Surveys (FSS, presented in Figure 1 and the first column of Table 1) or from the Farm Accountancy Data Network (FADN) (the second column of Table 1). In general, the share of rented land calculated based on the FADN data is slightly higher than that obtained from the FSS data. For example, the FADN data for Belgium show that 74% of the land is rented, while the figure is 67% in the FSS data. This difference may relate to the fact that there is sample selection in the FADN dataset and the smallest farms, which typically cultivate their own land and do not participate in the rental market, are excluded from the sample. Especially in the NMS, these small-scale farmers may represent a substantial share of the land market (e.g. in Romania).

*Table 1. Share of rented land as a % of the total UAA in 2007*

<b>Old member states</b>		
	<b>FSS</b>	<b>FADN</b>
Belgium	67	74
Germany	62	70
Greece	32	48
Finland	34	35
France	74	85
Ireland	18	18
Italy	28	41
Netherlands	25	40
Spain	27	35
Sweden	39	53
UK	32	43

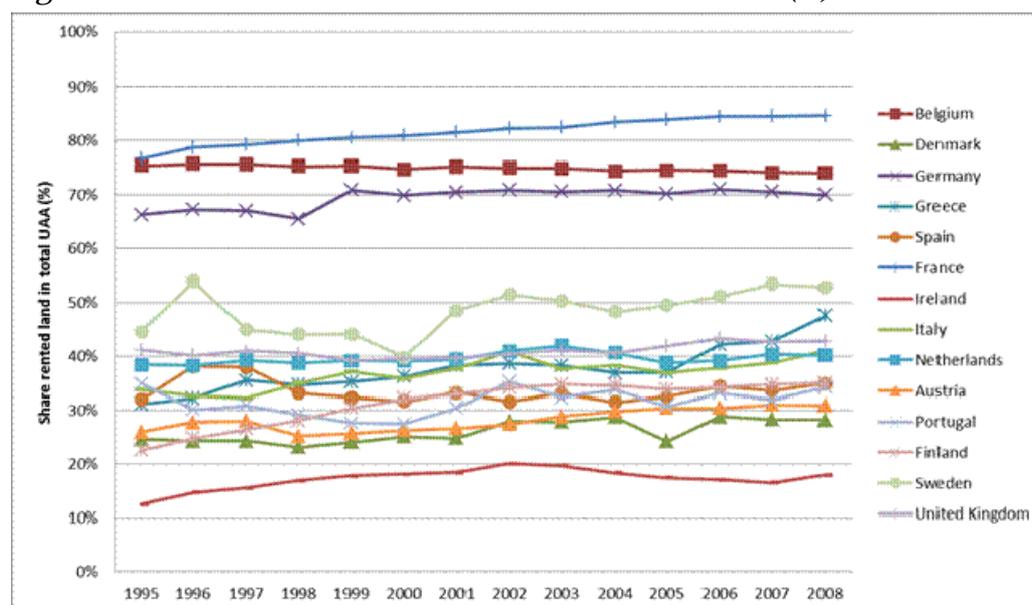
Table 1. cont'd

New member states		
	FSS	FADN
Bulgaria	79	87
Czech Republic	83	86
Estonia	50	59
Hungary	56	66
Latvia	27	43
Lithuania	48	59
Poland	20	30
Romania	17	48
Slovakia	89	96

*Sources:* Data for the first column are based on the FSS obtained by Eurostat (2007) and data for the second column are based on calculations from the FADN (2008).

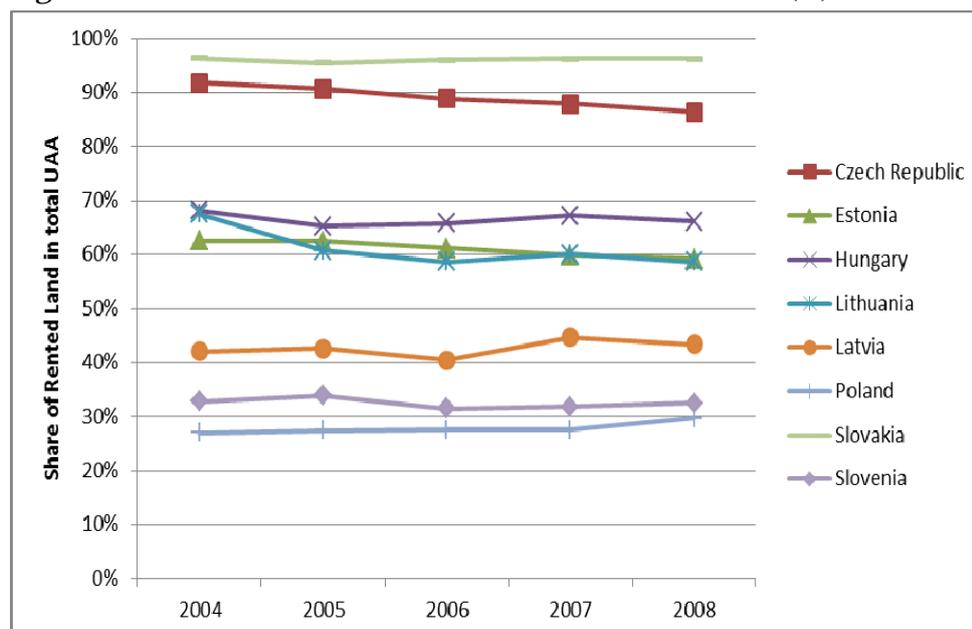
In the rest of the paper, where we study the dynamics in the use of rented land we use FADN data. For some countries, these data are slightly different from the data presented in Figure 1 and Table 1, as they are derived from a different source. Figure 2 presents the data for the OMS, while Figure 3 presents the data for selected NMS.

Figure 2. Share of rented land in the total UAA in the OMS (%)



*Source:* Own calculations based on the FADN database.

In most countries, the share of rented land in the total UAA remained relatively stable over the period 1995–2008 (OMS) or 2004–08 (NMS). In Belgium, the Netherlands, Estonia and Lithuania, the share of rented land slightly decreased. In France, Sweden, Austria, the UK and Poland, there was a (weak) increase in the share of rented area. In the other countries, such as Germany, Greece, Finland and Italy, the share of rented land grew more significantly.

*Figure 3. Share of rented land in the total UAA in the NMS (%)*

Source: Own calculations based on the FADN database.

In the remainder of this section, we split our sample of EU countries according to their share of rented land and discuss some country-specific features of the rental market in the different member states.

### **2.1 Countries with a high share of rented land (>70% of the total UAA)**

Countries that fall under this heading include Slovakia, the Czech Republic, Bulgaria, France, Belgium and Germany.

Among all EU member states, Slovakia and the Czech Republic have the highest shares of rented land, as respectively 89% and 83% of all UAA is rented. A considerable amount of land in the Czech Republic is still owned by the state, but even if we look solely at private land rentals, it becomes clear that 74% of the UAA is rented by private individuals.

Most of the land that is rented is used by corporate farms (the successors of the state farms), which still dominate the agricultural sector in these countries. The dominance of corporate farms and the consequent high share of rented land are closely related to the land reform process that was implemented at the beginning of transition (see also Box 1 in Ciaian et al., 2012b). Land was restituted to former owners, among whom the majority are not (or are no longer) active in agriculture. They may be retired or living in urban areas and are more likely to rent it out, particularly to large-scale corporate farms, for several reasons.

First, because of the limited information about sales prices and the expected increase in land prices upon accession to the EU, most of these new landowners were unwilling to sell their newly acquired land assets and instead preferred to rent out the land.

Second, since identifying potential tenants involves search and negotiation costs, the easiest way for the new landowners was to rent their land to the corporate farms, which had been the historical users of the land (Mathijs and Swinnen, 1998).

Third, as corporate management was closely involved in the land reform process, the search and negotiation costs of corporate management to identify and contract with the new owners were significantly lower than the costs faced by newly emerging structures (particularly family farms and de novo companies).

Land rental is also very widespread in Bulgaria, where 79% of the land is rented (Swinnen and Vranken, 2010). Around 50% of the land is used by corporate farms, while the rest is used by sole traders<sup>5</sup> (around 15%) and natural persons (around 35%). The land used by corporate farms and sole traders is mostly rented from households. The remaining land is used by small family farms, which tend to work their own land.

Over recent years, the share of land that is rented and the number of rental transactions have increased in Bulgaria (Table 2). In 2001, 281,000 ha of land were rented, with this figure rising to 374,000 ha in 2007 (in 2008, the surface that was rented fell back to 328,000 ha). The number of rental transactions grew from 120,000 in 2001 to 180,000 in 2007 and then fell back to 155,000 in 2008.

*Table 2. Land rental transactions in Bulgaria*

<b>Region</b>	<b>Rented area ('000 ha)</b>					
	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
North-West	28.76	44.83	40.13	56.04	40.43	40.71
North Central	44.15	52.67	76.94	108.14	132.19	139.22
North-East	139.60	74.52	127.83	135.72	115.01	95.93
South-East	21.69	32.08	32.66	38.95	30.40	24.70
South Central	43.10	29.23	47.28	29.14	47.48	18.06
South-West	3.59	9.83	9.05	7.11	8.58	9.33
Country – average	280.88	243.16	332.88	375.12	374.10	327.95
<b>Region</b>	<b>Number of rental contracts ('000)</b>					
	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
North-West	12.13	31.61	16.34	19.23	12.05	19.48
North Central	21.32	21.73	37.28	50.49	75.08	65.69
North-East	57.19	32.97	47.95	50.95	51.56	50.49
South-East	7.90	7.92	7.19	9.13	8.95	5.84
South Central	19.29	10.11	31.86	13.26	28.20	8.76
South-West	2.39	2.50	4.74	3.28	4.01	4.25
Country – average	120.21	106.84	145.34	146.35	179.85	154.51

*Source:* SAPI, obtained by Swinnen and Vranken (2010).

In France, according to the FSS data the share of rented UAA was 74% in 2007, while according to the FADN data, 85% was rented in 2008. The share of rented land in FADN farms showed an upward trend, from approximately 77% in 1995 to 85% in 2008. Nevertheless, there are strong regional variations in the share of rented UAA. In Limousin, for example, the share of rented land among all the UAA was 'only' 68%, while it was substantially higher in Picardie, where 95% of all the UAA used by FADN farms was rented in 2008 (Table 3).

<sup>5</sup> A sole trader describes a business that is owned and controlled by one person, although the business may have employees. Generally speaking, the sole trader (i.e. owner) is also personally liable for the debts of the business. This is referred to as 'unlimited liability'.

*Table 3. Share of rented land in the total UAA in different regions in France in 2008 (%)*

<b>Region</b>	<b>Share of rented land</b>	<b>Region</b>	<b>Share of rented land</b>
Limousin	68	Corse	88
Languedoc-Roussillon	70	Pays de la Loire	89
Auvergne	77	Franche-Comté	89
Midi-Pyrénées	77	Centre	89
Aquitaine	78	Île de France	91
Provence-Alpes-Côte	79	Lorraine	91
Poitou-Charentes	80	Nord-Pas-de-Calais	92
Rhône-Alpes	82	Haute-Normandie	92
Bretagne	82	Bourgogne	92
France (total)	85	Champagne-Ardenne	93
Alsace	86	Picardie	95
Basse-Normandie	87		

*Source:* FADN (2011).

In Belgium, the share of rented land was relatively stable at 68% and 74% of the total UAA, according to the FSS data and the FADN data, respectively. There were some historical regional differences in the share of rented land, but in all provinces more than 50% of the land was rented. Overall, the differences were rather small: according to FADN, 72% of the agricultural land in Flanders was rented, whereas in Wallonia the figure was 76%.

The landowners who rent out their land are in most cases farmers who also rent in agricultural land themselves. This situation stems from the widespread fragmentation of agricultural land in Belgium and the zoning regulations, which (owing to the high population density) leads to a dispersion of agricultural land, particularly in Flanders. Hence, in the presence of positive transaction costs, it is possible that it is more profitable to rent out plots that are far from the main farm buildings and rent in plots that are close by if the plots of a farm household are dispersed.

Also in Germany, the reallocation of agricultural land takes place mostly through the rental market. In 2008, 70% of the agricultural land used by FADN farms was rented (or 70% of the UAA in 2007, according to the FSS data). Overall, the share of rented land was considerably higher in Eastern Germany (80%) compared with Western Germany (60%) (Ciaian et al., 2010). In contrast to Western Germany, where the share of rented land has increased over the past years, the share of rented land in Eastern Germany has been declining (in 1999, 90% of the land was rented). The reason for this decline is the improving economic situation and the increased access to credit, which also makes purchasing land a reasonable option. In addition to differences between East and West, there are also regional differences in the share of rented land, ranging between 45% in Bavaria to 90% in Saxony (Ciaian et al., 2010).

In Bavaria, the share of rented land of the total UAA is lowest among all the federal states. In 2005, about 83,100 farms rented 1,455,400 ha of the UAA, which equated to 45% of the total UAA. This total rent share breaks down to 40% of the rented area being used in full-time farming, 25% of the rented area in part-time farming and 52% of the rented area being used by legal entities. The main reason for the small volume of the land market in Bavaria is the farm structure that has naturally evolved, with individual family farms being predominant. One of their primary aims is to maintain family property. Farmers may prefer to work part-time on their farm, instead of renting or selling the land. If they quit farming, they usually rent it out.

The large size of the rental market in Lower Saxony can be linked not only to the specific farm structure of the region, but also, at least partly, to policy. One of the factors behind the

importance of the rental market is that farms with high densities of livestock increasingly need additional land to comply with the restrictions on organic nitrogen in the Nitrates Directive.

## ***2.2 Countries with a medium share of rented land (<70% and >50% of the total UAA)***

Countries that fall under this heading include Sweden, Estonia, Lithuania and Hungary.

In Sweden, the share of rented agricultural land in the total UAA increased from 45% in 1995 to approximately 53% in 2008, according to the FADN data. The FSS reported that around 39% of the UAA was rented in 2007.

In Hungary, Lithuania and Estonia, the share of rented land in the total UAA was between 48% and 56% of the total UAA in 2007 (based on FSS data). Thus, it was substantially lower than the share of rented land in Slovakia and the Czech Republic, but higher than in Poland, Latvia and Slovenia. Like Slovakia and the Czech Republic, these differences are also related to the farm structure: in Slovakia and the Czech Republic, the sector was dominated by corporate farms, compared with a mix of corporate farms and family farms in Hungary, Lithuania and Estonia.

In Hungary, the share of rented land declined by 4.2% between 2001 and 2003, but by 2005, it had increased again by around 3%. On average, rental was the basis for the exchange of more than 3 million ha of land, which is 30 times the amount of land that was exchanged through sales (Swinnen and Vranken, 2009).

## ***2.3 Countries with a low share of rented land (<50% of the total UAA)***

Countries that come under this description include Greece, the UK, the Netherlands, Italy, Spain, Portugal, Finland, Ireland, Latvia, Poland and Romania.

Although recently the share of rented land in Greece has increased substantially, it is rather small, since agricultural land is usually cultivated by landowners and to a lesser extent by tenants. The owners usually rent out their property for just one farming period. Sometimes, but not that often, rental contracts last up to four years.

In Greece, state-owned land is also rented. In the past, farmers used to pay in kind (about 20-25% of total production), but there were some problems in terms of applying this method of payment. As a result, now farmers have to pay the value of production that they used to give as an in-kind payment. Cooperatives that redistribute or rent state-owned land to farmers have been created to facilitate the operation of this system.

In the UK, the proportion of English farmland that is leased has remained relatively stable at approximately 36% (national statistics). In Scotland, there has been a continual decreasing trend in the proportion of Scottish farmland that is leased, falling from 41% in 1982 to 29% in 2007. This is a long-term trend and the introduction of new types of leases in 2004 (see Box 1) to stimulate the land market have failed to bring more land forward for leasing. In particular, landowners do not like the fact that new leases are either for a maximum of 5 years or a minimum of 15 years with no scope for leasing arrangements between 5 and 15 years (10 years was the average lease length under the former Limited Partnership for renting land in Scotland).

In the Netherlands, the share of agricultural land rented by FADN farms was relatively stable for the period 1995–2008, at approximately 40% of the total UAA (or 25% of the UAA according to the FSS data).

In Italy, the share of rented land in the total UAA used by FADN farms was approximately 40% in 2008, while FSS and national data show that about 28% of the total UAA was rented in 2005 (Ciaian, et al., 2010). This share is very different among regions, varying from 45% (Val d'Aosta, Lombardia, Friuli Venezia Giulia) to below 15% (Trentino Alto Adige, Puglia, Calabria and Sicilia).

***Box 1. Agricultural lease contracts in Scotland***

In Scotland there are now four forms of agricultural leases permitted under the 2003 Act.

First, it is still possible to grant a new 'traditional' agricultural tenancy under the Agricultural Holdings (Scotland) Act 1991.

Second, there are grazing leases for no more than 364 days. Failure to ensure that the land is vacated at the end of the grazing period means it becomes a 5-year short limited duration tenancy (SLDT).

Third, SLDTs are agricultural leases for a term of no more than 5 years and are aimed at validating cropping lets (potatoes, turnips, etc). Tenants who occupy land under an SLDT are not allowed to diversify, nor are they able to exercise a pre-emptive right to buy their tenanted land.

Fourth, limited duration tenancies (LDTs) were introduced as the standard form of tenancy. They must be for a minimum period of 15 years, but they can also be for longer by agreement. If the lease is not terminated by notice at its agreed termination date, it will continue for a further 3-year period.

*Source:* Ciaian et al. (2010).

Overall, the rental market has been growing over time, although there has also been variation over time, which indicates major responsiveness to policy and market prices. Renting has become a critical component of structural change in the agricultural sector, and even in regions where renting is less widespread on average, it can be important for specific crops. Renting land is a particularly sensible step where it relates to livestock production (for manure spreading or foraging or both) or vegetable production (e.g. tomatoes), for which there are specific rotation limitations.

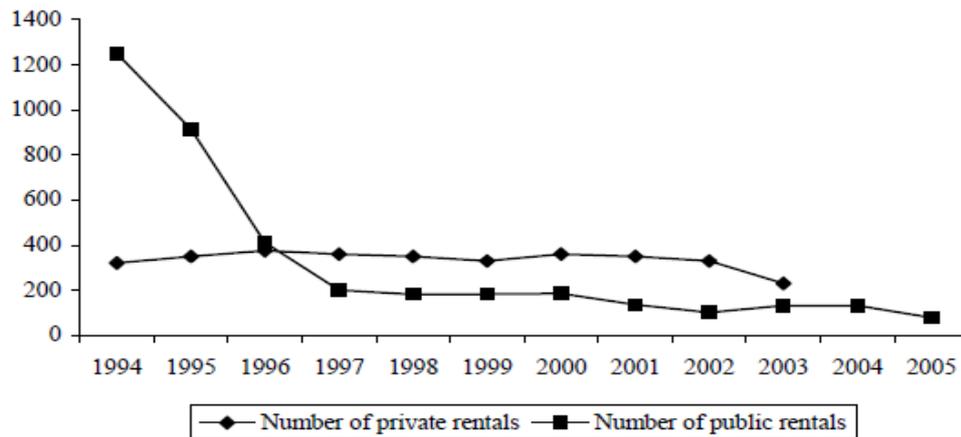
In Spain and Portugal, more than 30% of the total UAA is rented or farmed under sharecropping arrangements.

In Finland, the share of rented area has been steadily increasing since 1974. The relative increase in the share of rented land can be partially explained by the future expectations of land ownership, which are considerably higher than for the renting market (Ciaian et al., 2010).

In Ireland, most of the rented area is leased through the conacre system, which is unique to Ireland (and Northern Ireland) and entails the letting of land on a seasonal basis (nominally for 11 months or 364 days) without entering into a long-term commitment.

In Latvia and Poland, the share of rented land in the total UAA used by FADN farms was equal to 43% and 30% respectively (or 27% and 20% respectively, according to the FSS data). As in the case of the other NMS, the structure of the rental market is related to the land reform process. In Poland and the countries of the former Yugoslav Republic, collectivisation largely failed, such that a considerable share of agricultural land was already being used by individual farmers during the communist era (Lerman, 2001). This is in contrast to the other NMS, where a large share of the land was used by corporate farms.

Nevertheless, there was state-owned land in Poland and in 1994, land rental was the basis for transactions involving more than 1 million ha of public agricultural land, which decreased to less than 100,000 ha in 2005, with the continuing privatisation of public land (Figure 4). The annual volume of farmer-to-farmer rentals remained stable from 1994 to 2002, ranging between 320,000 and 375,000 ha. But in 2003 it fell to 230,000 ha.

*Figure 4. Rental transactions in Poland (number)*

Sources: IERiGŻ and ANR, obtained by Swinnen and Vranken (2009).

Finally, the share of rented land is also low in Romania – according to the FSS data and national statistics, only 17% of agricultural land is rented. Romania (or at least the majority of the country) can be characterised as a labour-intensive agricultural economy where land has been distributed in kind to rural households, with 65% of agricultural land being used by farms for which the holder is a natural person (typically small-scale family farms). In such countries, there is relatively little renting. At the same time, renting is important in Romania for the large-scale farms, which cultivate 35% of the UAA. In 2007, legal entities rented on average 36% of the land they cultivated, while the figure for family farms was only 7% (Swinnen and Vranken, 2010).

### 3. Rental prices

In several EU member states, governments have imposed price restrictions on agricultural land rental markets. These price restrictions may take the form of maximum or minimum rental prices. For example in Belgium and the Netherlands, there is a maximum rent. In France, there is a combination of a minimum and a maximum rent. In addition, these countries have imposed a limitation on the duration of rental contracts (e.g. a minimum of nine years in Belgium). In the other OMS in the sample (Finland, Germany, Greece, Ireland, Italy, Spain, Sweden and the UK), there are no rental price restrictions. Also in the NMS, there are no price restrictions on rental prices for agricultural land. An overview of the existing regulations restricting land rental prices in EU member states is given in the Factor Markets paper by Ciaian et al. (2012b).

This section illustrates the differences in rental prices among member states and the evolution of rental prices over the periods 1995–2008 (for the OMS) and 2004–08 (for the NMS). Data on the evolution of rental prices have been deflated using the EU-25 GDP deflator. As in the case of the share of rented land, along with national statistics we consider two other data sources: Eurostat and FADN.

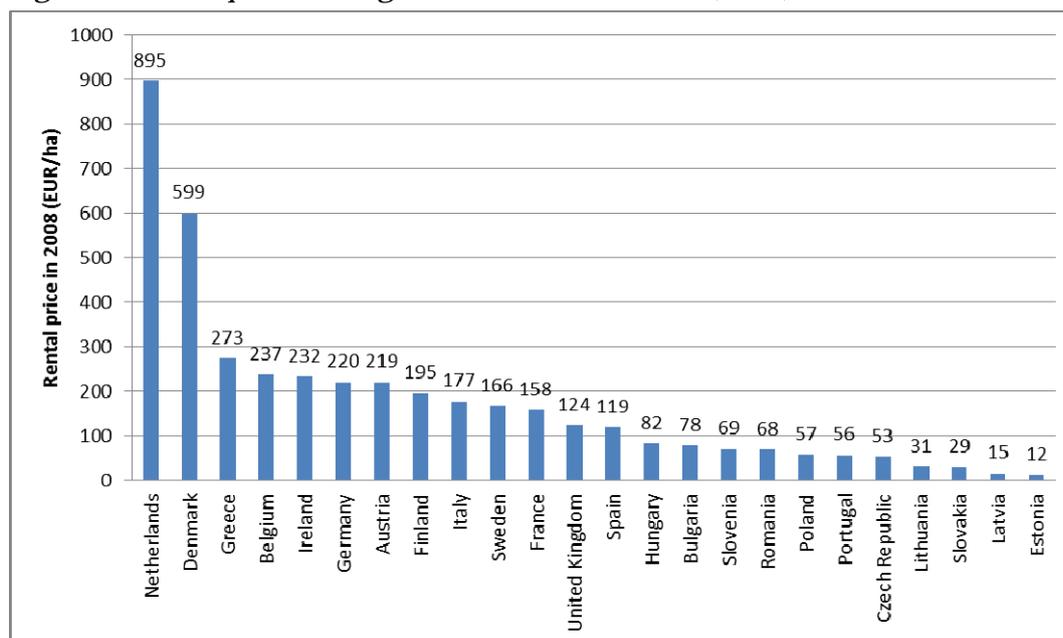
Eurostat provides rental price data on some of the member states. Data on agricultural land prices come ultimately from national administrative sources and are in most cases collected by means of special surveys. In general though, the available data are rather incomplete.

In addition, there are rental price data calculated from the FADN dataset. Rent per hectare is constructed by dividing two FADN variables: “Rent paid” (SE375) and “Rented UAA” (SE030). Notably, the variable “Rent paid” is only a proxy for the rental cost of agricultural land, because in addition to the cost of renting land, “Rent paid” includes the rental cost for buildings. Furthermore, we should keep in mind that the smallest farms, which may also participate in the agricultural land market, are excluded from the FADN sample. For example, for the year 2005 the FADN data represented 43% of agricultural holdings and 92%

of the total UAA. Despite these limitations, we believe that the FADN dataset provides internationally comparable survey data for all the countries in our sample. Moreover, the rental coverage in Eurostat and national statistical data is incomplete.

Based on the available data, there are substantial differences in the agricultural rental prices in the member states. Figure 5 shows the average rental price for agricultural land in 2008 in the selected member states based on the FADN data. Table 4 also provides a comparison of rental prices calculated based on FADN data and data obtained from Eurostat. It appears that there are significant differences between the two datasets, but as already argued we rely mostly on the FADN data because these data are the most complete and comparable for all the member states.

*Figure 5. Rental prices for agricultural land in 2008 (€/ha)*



Source: FADN (2011).

*Table 4. Rental prices for agricultural land in 2008 (€/ha)*

Old member states		
	Eurostat	FADN
Belgium	-	237
Germany	-	220
Greece	502*	273
Finland	174**	195
France	130***	158
Ireland	185***	232
Italy	-	177
Netherlands	469	895
Spain	168	119
Sweden	126	166
UK	205**	124

*Table 4. cont'd*

<b>New member states</b>		
	<b>Eurostat</b>	<b>FADN</b>
Bulgaria	115*	78
Czech Republic	-	53
Estonia	-	12
Hungary	93	82
Latvia	-	15
Lithuania	43	31
Poland	-	57
Romania	-	68
Slovakia	18	69

\* Rental prices for arable land; \*\* data from 2007; \*\*\* data from 2006

*Sources:* Data in the first column have been obtained from Eurostat (2007) and data in the second column are based on calculations from the Farm Accountancy Data Network (FADN) (2008).

First, it can be observed that there is a large divergence between rental prices in the OMS and the NMS. For example, in Estonia, renting 1 ha of agricultural land costs approximately €12 per year, while in the Netherlands, a farmer pays on average €895. These substantial differences relate to such factors as land productivity, farm structure and income differences between the OMS and the NMS.

Second, within the group of OMS, there is also substantial variation in the rental prices. For example, in the Netherlands rental prices are very high (€895/ha), while they are much lower in Spain (€119/ha) and Portugal (€56/ha). In this case, the disparities relate not only to differences in income among member states, but also to farm structure, agricultural profitability and the interaction with policy regulations (e.g. increased demand for land to comply with the Nitrates Directive in countries where there is a manure surplus, such as Denmark), which may lead to higher rental prices.

Third, within a country there can be substantial variation in rental prices. For example, in Germany the ratio of rental prices in West and East Germany was almost 2:1 in 2005 (Ciaian et al., 2010). There are a number of explanations for this gap in rental prices between East and West Germany. For instance, according to Balmann (1999), rental price differences stem from the relatively low livestock density in East Germany and the unexploited returns to scale of the family farms that dominated the agricultural sector in West Germany. Another explanation lies in the way the rental contracts were awarded by the company that managed state-owned land in Eastern Germany, the Bodenverwertungs und verwaltungs GmbH (BVVG). The administrative prices set by the BVVG served as a focal point for the rental market. Although this procedure has changed in recent years, the effects are still present owing to the often long duration of rental contracts.

Finally, it is important to note that these official statistics may underestimate the rental prices in some member states, as they do not take into account 'grey' payments, which are particularly important in the rental markets of Belgium and the Netherlands (see Box 2).

With respect to the candidate countries, there are no internationally comparable data on rental prices available in the FADN or Eurostat databases. Therefore, we are only able to present data based on national statistics obtained from Bojnec (2011). In the FYROM, the government stipulates a minimum rental price for state-owned agricultural land, which varies by land quality: €25 per ha for high quality land, €15 per ha for medium quality land, and €15 to €5 for land in mountain areas. Overall, the average rental price in the country is €15 per ha for agricultural land and €25 per ha for arable land. In the other two candidate countries, Croatia and Turkey, rental prices are not regulated. But there is no information on the average rental price for agricultural or arable land in either country. In Turkey, land

rental often takes place under sharecropping contracts, where traditionally a third of the produce is paid to the landowner.

*Box 2. The 'grey' rental sector in the Netherlands and Belgium*

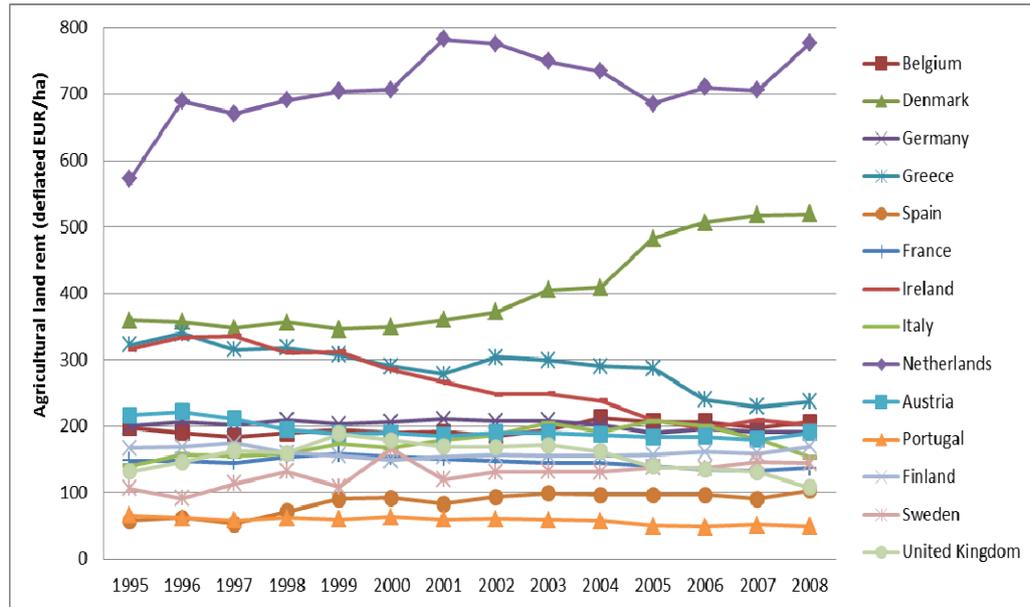
In both the Netherlands and Belgium, the government set regional rent ceilings and allowed only very modest rent adjustments each year. Ironically, these measures, which aimed at protecting tenants and offering them tenure security for many years, had the opposite result (Swinnen, 2002). To circumvent the strict regulations, a 'grey' rental sector evolved and farmers entered into informal contracts with landowners. In the Netherlands, prices were sometimes on average 50% higher than the officially registered rents and by 1995, grey rents accounted for 25% of the total rented area in the Netherlands (Hoek and Luijt, 1999). In Belgium as well, a substantial share of the rental price is grey money and hence not included in official statistics, as the rigidity of the tenancy market (with a minimum duration of nine years for a rental contract) stimulates the use of these additional payments. When a plot with a good location comes onto the rental market, neighbouring farmers are prepared to pay a higher price than the official maximum price because if they are not able to rent the plot then, it will be at least nine more years before the plot becomes available again. Since 2007, more liberal forms of rental contracts have been introduced in the Netherlands to stop the growth of the informal market. Rental agreements for less than six years are no longer subject to these regulations, but the regulations continue to apply to contracts of longer durations.

Not only does the magnitude of the rental price differ among countries, but also the rental price development is heterogeneous across the EU member states, especially in the OMS. In some countries, such as Denmark and the Netherlands, real rental prices for agricultural land increased over the period 1995–2008, while in other countries, such as Greece and Ireland, they fell over the same period. Figure 6 illustrates the evolution of the real rental price in the OMS based on the FADN data.

The heterogeneity in the evolution of rental prices in the OMS is in contrast to that which took place in the NMS, where agricultural land rents in all countries sharply increased over the period 2004–08 (Figure 7). There are differences, however, in the speed and the magnitude of the rental price increases. For example, in the Czech Republic nominal agricultural land rents rose from €29/ha in 2004 to €53/ha in 2008, while in Slovakia, the increase in land rents was more moderate, with nominal rental prices for land rising from €23/ha in 2004 to €29/ha in 2008.

In general, we can distinguish three distinct patterns in rental price developments: i) countries where agricultural land prices decreased in the period 1995–2008, such as Austria (-12%), the UK (-18%), Portugal (-25%), Greece (-27%) and Ireland (-36%); ii) countries where the change in rental price was relative small over that period, such as Italy (8%), Belgium (4%), Finland (1%), France (-7%) and Germany (-5%); and iii) countries where agricultural land rents increased in the period 1995–2008 (for the OMS) and the period 2004–08 (for the NMS). These include the following countries of the OMS: the Netherlands (36%), Sweden (36%), Denmark (45%) and Spain (81%). The NMS that fit this pattern are Slovakia (14%), Hungary (36%), Poland (44%), Latvia (45%), the Czech Republic (69%), Estonia (92%), Lithuania (110%) and Slovenia (115%).

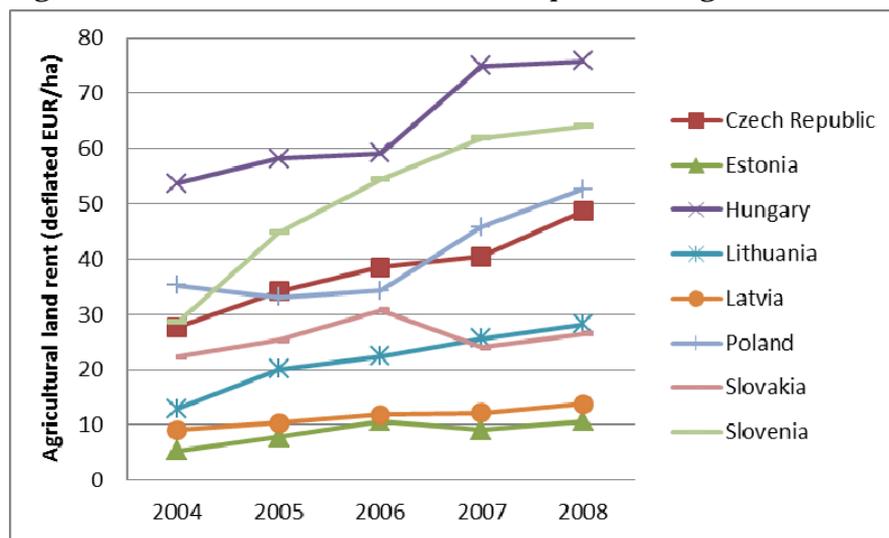
Figure 6. Evolution of the deflated rental prices for agricultural land in the OMS (€/ha)



Note: Prices are deflated using the EU-25 GDP deflator and expressed in 2000 prices.

Source: FADN (2011).

Figure 7. Evolution of the deflated rental prices for agricultural land in the NMS (€/ha)

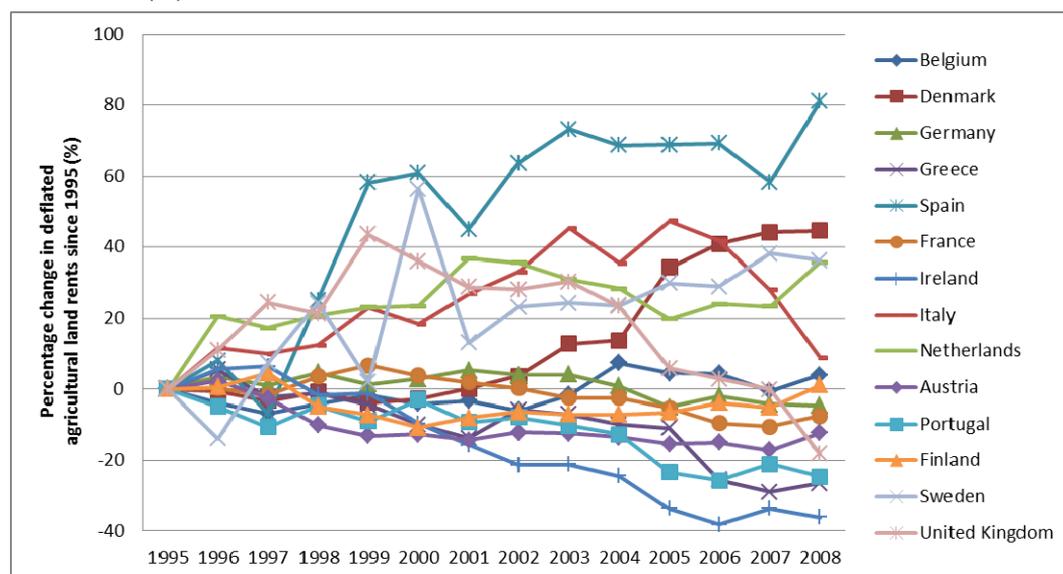


Note: Prices are deflated using the EU-25 GDP deflator and expressed in 2000 prices.

Source: FADN (2011).

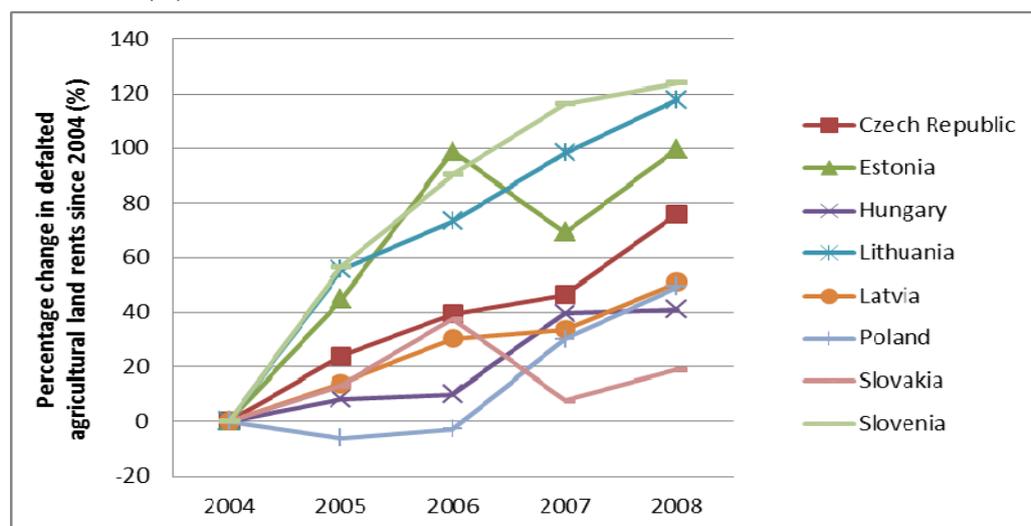
The changes in land rental prices (in percentages) since the reference year (1995 for the OMS and 2004 for the NMS) are given in Figure 8 for the OMS and Figure 9 for the NMS.

**Figure 8. Percentage change in the deflated rental prices for agricultural land in the OMS (%)**



*Note:* Prices are deflated using the EU-25 GDP deflator and expressed in 2000 prices.  
*Source:* FADN (2011).

**Figure 9. Percentage change in the deflated rental prices for agricultural land in the NMS (%)**



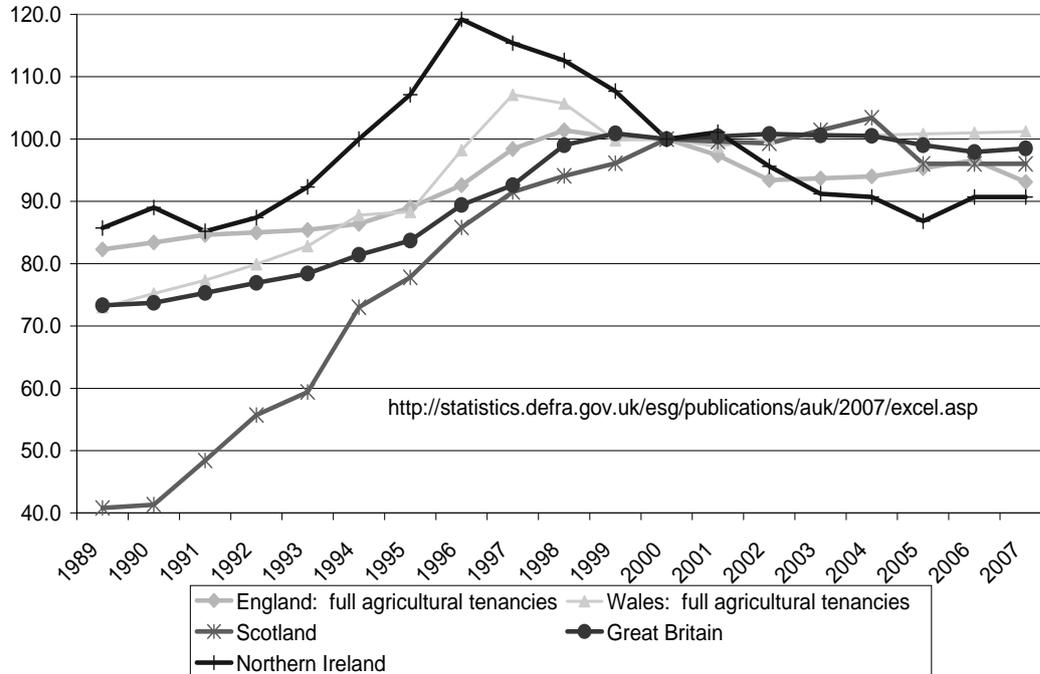
*Note:* Prices are deflated using the EU-25 GDP deflator and expressed in 2000 prices.  
*Source:* FADN (2011).

### 3.1 Countries with decreasing rental prices for agricultural land

Based on FADN data for rental prices in the UK, we found that rental prices increased in this country until the end of the 1990s. Yet subsequently, prices stabilised and after 2004 real rental prices even decreased (-40% between 2004 and 2008). These evolutions are confirmed by the data on agricultural rental prices collected by the British government agency Defra, although these data show a smaller decline in rental prices in the years after 2004 (Figure 10).

In addition to national averages, Defra also provides regional data, which show substantial regional variations in the evolution of land rental prices. Average rents in Scotland grew significantly during the 1990s, but this growth died off and prices have actually fallen since 2004. Rents in Northern Ireland are also reported to have decreased significantly since 1997.

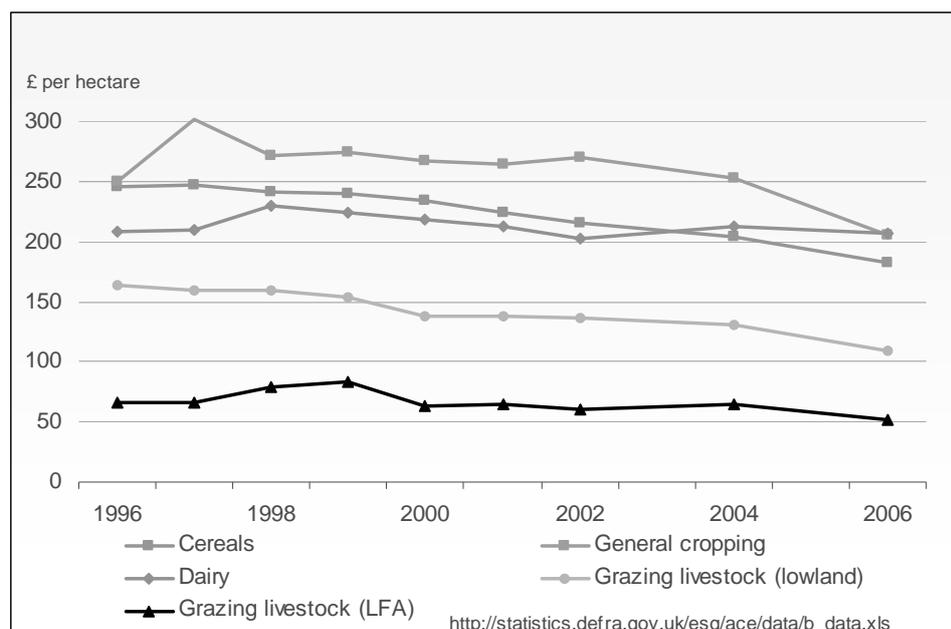
Figure 10. Index of average rent in the UK (2000=100)



Source: Defra (2008), obtained by Ciaian et al. (2010).

For England, Figure 11 shows data on the average rent paid for full agricultural tenancies, which are long-term (often inter-generational) leases for which the average rental price tends to remain relatively stable over time. The decrease in rental prices at the beginning of the 2000s was symptomatic of the returns to agriculture in those years. Tenants with rent reviews during that period pleaded hardship and landlords agreed on a lower level of rental prices. For such short-term contracts as Farm Business Tenancies, rents have declined substantially because these short-term agreements better represent the prevailing market for leased land (in terms of supply and demand), with farmers being shrewd when considering the economic benefits of taking on additional land. The decline in rental prices for these short-term contracts has taken place in all sectors except for the dairy sector, where rental prices have remained stable.

Overall, there is substantial regional variation in the level of agricultural land rents. Table 5 provides information on the regional differences in rental prices in the UK for rental contracts under the Agricultural Tenancies Act 1995 (ATA) and under the Agricultural Holdings Act 1986 (AHA) in 2010. For the AHA contracts, rental prices varied between £147/ha in Wales and £186/ha in the north-west region. For ATA contracts, prices were generally higher and varied between £217/ha in the south-east and £287/ha in the eastern region.

*Figure 11. Average rents: Farm business tenancies in England*

Source: Defra (2008), obtained by Ciaian et al. (2010).

*Table 5. Land rental prices in the UK in 2010 (£/ha)*

	AHA*	ATA**
Eastern	172	287
East Midlands	161	281
North-east	153	238
North-west	186	272
South-east	161	217
South-west	148	244
Wales	147	260
West Midlands	167	272
Yorkshire and Humberside	158	269

\* Agricultural Tenancies Act 1995; \*\* Agricultural Holdings Act 1986

Source: RICS (2010).

In Ireland, real rental rates for agricultural land decreased substantially over the ten-year period compared with the reference year (1995), with agricultural rents decreasing by 36% – the largest decrease among all member states.

In Greece, rental prices remained relatively stable until 2005, after which prices started to decline. In general, rents are paid in cash, but occasionally tenants prefer to give landowners part of their production in kind (up to 30-50% of total production).

According to national statistics, rental prices vary among regions in Greece, but they are in general much lower compared with rental prices obtained from FADN (Table 6). A significant share of agricultural land is located in mountainous areas, whereas the remaining share is close to coastal tourist areas, where rental prices are substantially higher.

*Table 6. Agricultural rental prices in Crete in 2007 (€/acre)*

	Plain area		Mountainous area		Glasshouses
	Non-irrigated land	Irrigated land	Non-irrigated land	Irrigated land	
Heraklion	27.20	66.20	16.32	39.72	392.05
Lasithi	18.14	46.55	10.88	27.93	271.44
Chania	27.20	66.20	16.32	39.72	392.05
Rethimno	18.14	46.55	10.88	27.93	271.44

Sources: Ministry of Economics and Finance, obtained by Ciaian et al. (2010).

### **3.2 Countries with stable rental prices for agricultural land**

In Italy, the average agricultural land rent based on FADN data increased by approximately 8% compared with the reference year (1995); by 2008, the average rental price per hectare was approximately €177. But national statistics suggest even higher rental prices, which nonetheless differ significantly among regions and types of agricultural production, reflecting differences in land quality (Tables 7 and 8). Prices are highest in the northern and eastern regions of Italy (€1,072/ha) and for land used for flower production (€2,203/ha), while they are lowest in the southern region (€716/ha) and for land used for fruit production (€125/ha).

*Table 7. Regional differences in rental prices in Italy in 2009 (€/ha)*

Region	Average
North-eastern	1,072
North-western	844
Centre	550
Southern	753
Isles	716

Source: Povellato (2010).

*Table 8. Sectoral differences in rental prices in Italy in 2009 (€/ha)*

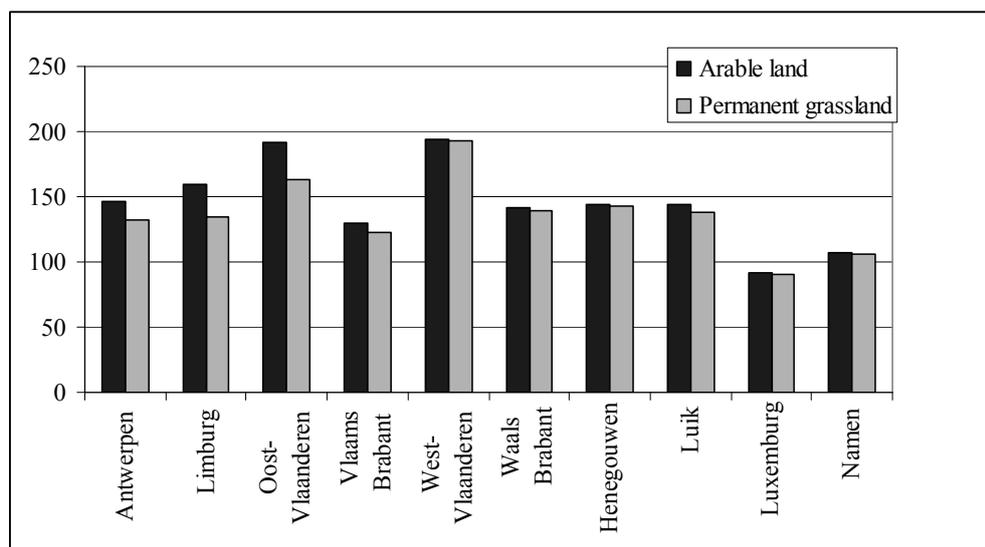
Region	Average
Arable crops	635
Flowers and nursery	2,203
Forest	125
Fruit	1,122
Grassland and pasture	175
Olive oil plantation	538
Vineyards	1,434

Source: Povellato (2010).

In Belgium, agricultural land rents are strongly regulated by set maximum prices, depending on the region. In most cases the maximum rental price, as determined by the government, is paid. The additional amount that is paid varies depending on the circumstances, but it can be substantial. In recent years, there has also been an increase in seasonal and informal contracts, which is related to the low official tenancy prices, the introduction of direct payments and uncertainty over zoning regulations. Because of data paucity, it is not possible to quantify the evolution of either the additional payments or the number of seasonal contracts.

Given that prices are determined for each agricultural district, there are also regional price differences among the provinces (Figure 12). National statistics suggest that average prices in Flanders are 38% (arable) and 30% (permanent grassland) higher than in Wallonia.<sup>6</sup> Prices also increased in Flanders at the end of the 1990s, but remained stable in Wallonia. These disparities in prices can be explained by differences in soil quality, which are in turn reflected by variations in the cadastral income, and mainly in profitability, as well as in the tenancy coefficients.

Figure 12. Regional differences in the rental prices in Belgium in 2006



Source: FOD Economie, KMO, Middenstand en Energie (2008).

In France, the average rental price for agricultural land slightly increased from €130/ha in 1995 to €158/ha in 2008, based on the FADN data. Still, these negligible changes are not representative for the land market trends in this country, since rental markets for agricultural land are heavily regulated in France (see Ciaian et al., 2012b).

Also in Germany, the average agricultural land rents were relatively stable over the period 1995–2008. Furthermore, national statistics show that there is still a substantial price gap between rental prices in East and West Germany with a ratio of almost 2:1. There are several explanations for this difference (Balmann, 1999): a low livestock density in East Germany, unexploited returns to scale by family farms in West Germany and the importance of the administrative prices set by BVVG as a focal point for the rental market. Although this has changed in recent years, the effects are still present because of the often long duration of rental contracts. The states with the highest rental prices are North Rhine-Westphalia, Lower Saxony and Schleswig-Holstein, whereas the lowest prices can be found in Brandenburg, Saarland and Saxony (Table 9).

<sup>6</sup> Note that the provinces Antwerpen, Limburg, Oost-Vlaanderen, West-Vlaanderen and Vlaams Brabant are a part of Flanders, while Waals Brabant, Henegouwen, Luik, Luxemburg and Namen belong to Wallonia.

*Table 9. Land rental prices in Germany in 2007 (€/ha)*

	<b>Agricultural land (arable land and pasture)</b>	<b>Arable land</b>
<b>Germany</b>	183	205
Baden-Württemberg	189	210
Bayern	235	273
Brandenburg	80	86
Hessen	140	173
Mecklenburg-Vorpommern	125	138
Niedersachsen	279	322
Nordrhein-Westfalen	312	366
Rheinland-Pfalz	192	187
Saarland	85	96
Sachsen	116	126
Sachsen-Anhalt	172	194
Schleswig-Holstein	261	293
Thüringen	120	137
Berlin, Bremen, Hamburg	191	199

*Source:* National statistics.

### **3.3 Countries with increasing rental prices for agricultural land**

Countries with increasing rental prices for agricultural land in the OMS include the Netherlands, Sweden and Spain, and in the NMS they include Slovakia, Hungary, Poland, Latvia, the Czech Republic and Estonia, Lithuania.

In the Netherlands, the rental prices calculated based on the FADN data are very high and increased substantially over the period 1995–2008. On average, the rental price per hectare of agricultural land in 1995 was €503, but by 2008, it had increased to €895. Before 1995, rental prices were heavily regulated and prices were kept artificially low. After the introduction of more liberal contract types, rents immediately caught up to their economic levels.

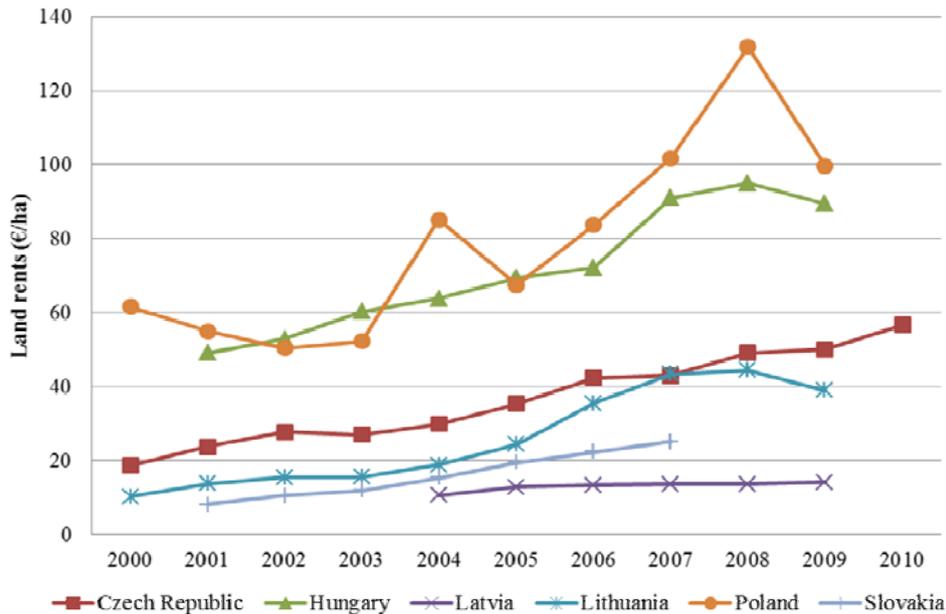
In Spain, the average rental price of FADN farms in 1995 was €50/ha in current values, which managed to reach €118/ha in 2008. But once again, important divergences appear in terms of crops and communities (Ciaian et al., 2010). National data show that in 2006, the highest land rents were paid in the Canaries (€1,042/ha), Murcia (€511/ha) and Andalusia (€370/ha), while the lowest appear to have been in the Balearics (€91/ha) and Aragon (€109/ha). Land with irrigation crops was leased at an average rate of €487/ha in the same year, followed by olive groves at €410/ha, with the lowest rental prices paid for pasturelands (€52/ha).

In Sweden, agricultural rental prices have increased since 1995. Rental prices rose at a faster rate in the late 1990s than at the beginning of the 2000s. There is variation in rental prices among different parts of the country, with rents having increased over the entire period in all regions except the most northern part of the country. Renting land in the plains in southern Sweden costs about 8.5 times as much as renting land in northern Sweden.

In all the NMS, the agricultural land rents paid by FADN farms have increased considerably, underlined by national statistical evidence also showing a significant rise in land rents

(Figure 13).<sup>7</sup> Moreover, based on these data, we find that especially since EU accession, agricultural land rents have exploded. This is illustrated by Figure 14, which represents the share of farms that experienced an increase in land rental prices in Slovakia over the period 1993–2006. These data show that especially in 2004 (the year of EU accession) and 2005, rental prices rapidly increased.

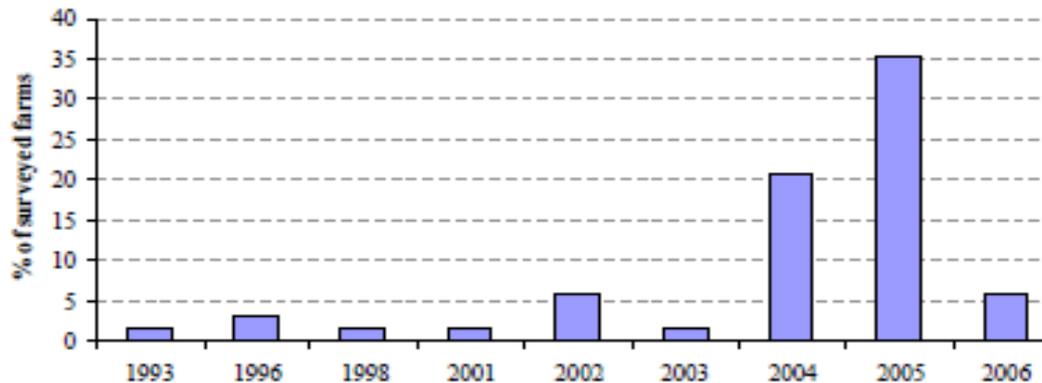
Figure 13. Evolution of land rents in the NMS (€/ha; based on national statistics)\*



\* Real 2010 prices

Source: National statistics obtained by Van Herck et al. (2011).

Figure 14. Share of farms with an increase in land rental prices in Slovakia by year



Source: Swinnen and Vranken (2009).

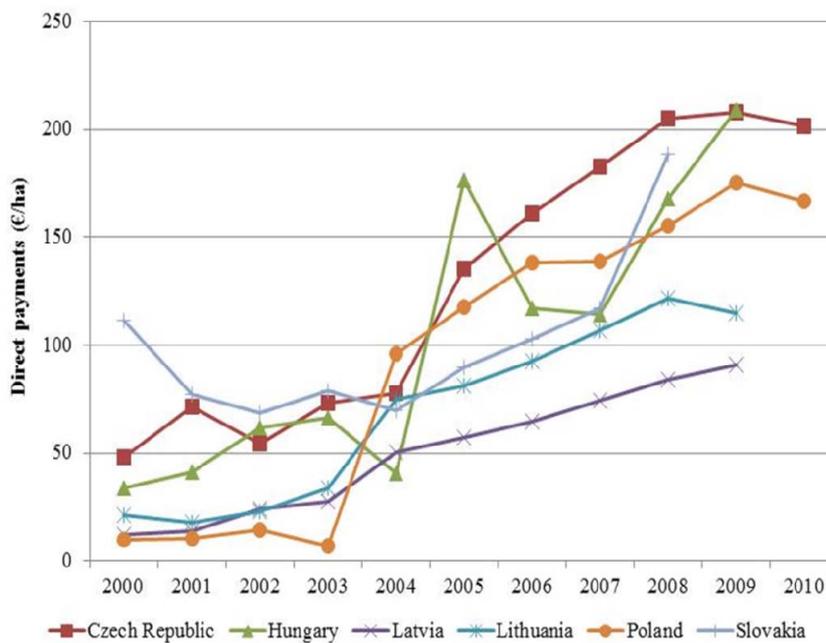
<sup>7</sup> Note there are differences between data obtained from FADN and national statistics. We have already indicated that agricultural rents in FADN data are an imperfect measure, as they also include the rents paid for agricultural buildings. At the same time, there is an additional concern that we should keep in mind when considering the FADN data: FADN data do not include very small farm holdings, which, especially in the NMS, still represent a large proportion of the farm population. The data presented in Figure 13 have been obtained from national statistics (various sources), by Swinnen and Vranken (2009) and Van Herck et al. (2011), where the data sources are documented in detail.

An important driver of the increase in land rents may have been the increase in direct payments, which are (at least partially) capitalised into land rents. Figure 15 shows the evolution of direct payments in the different NMS. The extent to which the direct payments are capitalised and the interactions with the specific conditions in the rental markets of the NMS are the subject of future research in the Factor Markets project.

At the same time, there is wide variation in the level of agricultural land rents among the NMS. The lowest annual rental prices were found in Latvia, while rental prices in Slovakia and Lithuania were somewhat below those in the Czech Republic. The highest rental prices were found in Hungary and Poland.

In addition, just as in several OMS, the rental prices within a NMS may show substantial differences. For example in Bulgaria, rental prices depend on the quality of the agricultural land (Swinnen and Vranken, 2010).

*Figure 15. Evolution of direct payments in the NMS (€/ha)*



\* Real 2010 prices

*Source:* National statistics obtained by Van Herck, et al. (2011).

The ratio of land rental over land sales prices also shows notable differences among the countries. In the Czech and Slovak Republics, the land rental price is only 0.5% of the land sales price. This ratio is considerably lower than that in Poland, where the land rental price is around 2% of the land sales price and the disparities with Lithuania (6%) and Hungary (8%) are even larger. Even if there are also differences in the land rental–land sales price ratio among EU-15 countries, this ratio is never less than 2% in the 15 OMS of our sample.

The fact that there is such variation in the ratio of land rental over land sales prices (particularly in the cases of Slovakia and the Czech Republic) suggests that there are some structural differences in the functioning of the rental and sales markets in these countries.

There are two possible hypotheses on this matter. One hypothesis is that some agricultural land is bought for non-farm purposes, which thereby increases sales prices. A second hypothesis is that the average land-rental prices in Slovakia reflect a mixture of rental by farming companies, cooperatives and individual/family farms. The corporate farms, and especially the cooperatives, pay much less rent. Since corporate farms still use the vast majority of agricultural land and dominate the land rental market, they may abuse their market power to keep rental prices low (Box 3).

**Box 3. Large differences in rental prices for alternative farm structures in Slovakia and the Czech Republic**

Several studies document that land markets in the NMS, even in the most advanced countries, are characterised by the existence of substantial transaction costs in rural land markets, hindering land exchanges (Dale and Baldwin, 2000; Lerman et al., 2004). Transaction costs include those related to bargaining costs, the enforcement of withdrawal rights, asymmetric information and unclear boundaries. Uncertainty and high costs in the identification of land property rights may also lead to soaring transaction costs and constraints on land transactions.

There is some evidence that corporate farms reduce payments by paying in kind instead of in cash, since these in-kind payments by corporate farms are less transparent. The in-kind payments often depend on yields, which are difficult for landowners to control, and result in lower effective rent payments. Table 10 gives an overview of the differences in rental prices paid by family farms and legal entities.

**Table 10. Agricultural land rental prices paid by family farms and legal entities (€/ha)**

	1997	2001	2005
<b>Czech Republic</b>			
Individual farms (€/ha)	16	23	35
Corporate farms (€/ha)	9	17	30
Price gap in € ( $P_{IF}-P_{CF}$ )	7	6	5
Price gap in % ( $(P_{IF}-P_{CF})/P_{CF}$ )	73	37	15
<b>Slovakia</b>			
Individual farms (€/ha)	–	18	24
Corporate farms (€/ha)	–	6	17
Price gap in € ( $P_{IF}-P_{CF}$ )	–	13	7
Price gap in % ( $(P_{IF}-P_{CF})/P_{CF}$ )	–	229	45

*Sources:* FADN for Slovakia and VUZE for the Czech Republic.

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## Comparative Analysis of Factor Markets for Agriculture across the Member States

245123-FP7-KBBE-2009-3

### The Factor Markets project in a nutshell

<b>Title</b>	Comparative Analysis of Factor Markets for Agriculture across the Member States
<b>Funding scheme</b>	Collaborative Project (CP) / Small or medium scale focused research project
<b>Coordinator</b>	CEPS, Prof. Johan F.M. Swinnen
<b>Duration</b>	01/09/2010 – 31/08/2013 (36 months)
<b>Short description</b>	<p>Well functioning factor markets are a crucial condition for the competitiveness and growth of agriculture and for rural development. At the same time, the functioning of the factor markets themselves are influenced by changes in agriculture and the rural economy, and in EU policies. Member state regulations and institutions affecting land, labour, and capital markets may cause important heterogeneity in the factor markets, which may have important effects on the functioning of the factor markets and on the interactions between factor markets and EU policies.</p> <p>The general objective of the FACTOR MARKETS project is to analyse the functioning of factor markets for agriculture in the EU-27, including the Candidate Countries. The FACTOR MARKETS project will compare the different markets, their institutional framework and their impact on agricultural development and structural change, as well as their impact on rural economies, for the Member States, Candidate Countries and the EU as a whole. The FACTOR MARKETS project will focus on capital, labour and land markets. The results of this study will contribute to a better understanding of the fundamental economic factors affecting EU agriculture, thus allowing better targeting of policies to improve the competitiveness of the sector.</p>
<b>Contact e-mail</b>	info@factormarkets.eu
<b>Website</b>	www.factormarkets.eu
<b>Partners</b>	17 (13 countries)
<b>EU funding</b>	1,979,023 €
<b>EC Scientific officer</b>	Dr. Hans-Jörg Lutzeyer

