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## THE DEVELOPMENT OF AGRITOURISM IN ROMANIA AND ROLE OF FINANCIAL SUBSIDIES ALLOCATED UNDER THE COMMON AGRICULTURAL POLICY

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### Abstract

Romania has experienced considerable growth in agritourism able to meet the demand for sustainable tourism generated on both domestic and European markets. A picturesque landscape, other unique features and cultural heritage have all acted directly to increase agritourism in the country. Against this background, the work detailed in this paper sought to employ a quantitative approach in assessing if the above development of agritourism correlated directly with financial assistance allocated under the EU's Common Agricultural Policy (CAP). Findings in fact point to a direct impact of funding disbursed under the CAP, while payments disbursed under the so-called second pillar are not found to have impacted on the growth of agritourism. Outcomes with the Epanechnikov kernel method highlight a significant shift in the subsidies allocated under the Common Agricultural Policy via its first and second pillars, with an increase in the total fund disbursed in 2013 as compared with 2007. Subsidies allocated via the second pillar of the CAP can thus be said to have had a pivotal role in supporting investment in on-farm diversification, in this way achieving a partial integration of farmers' incomes in Romania.

### Key words

panel data • rural development • rural tourism • fixed effect • countryside • multiple regression model • agritourism • Common Agricultural Policy • Romania

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### Introduction

The collapse of the communist regime in Romania in the early 1990s has been followed by marked and apparently permanent process of emigration, predominantly emigration from the countryside. This has entailed

a considerable exodus of farmers towards urban areas thought capable of affording new and different job opportunities. In general, Romania's transition from a centralised and planned economy to one based around open competition has not been easy, on account of the endemic poverty notable at the county

level in most parts of the country, as associated with insufficiencies as regards infrastructure and a shortage of non-diversified business activity only serving to strengthen Romania's urban-rural dichotomy (Turnock 2005). However, the latter author has highlighted the positive role exogenous financial subsidies and micro-credit initiatives have been able to play in fostering diversification in the countryside, with a view to the problems of socio-economic marginalisation, emigration and unemployment being addressed. More specifically, it is a restructuring of small farms in association with new business and employment opportunities that is being achieved.

Aspects of economic performances and general features characterising Romania's primary sector point to villages and farms having the same characteristics – and facing the same problems – as could be noted in many other European countries around the early 1960s (Oțiman 2009). This 'time lag' in socio-economic development is considered to reflect the rather inefficient use made of the funding the EU allocated in Romania's pre-accession period, as well as the limited input of invested capital, and hence also new technology, and the attendant failure to achieve the improved on-farm technical efficiency so fundamental to any containment of the process of socially-inspired desertification ongoing in the Romanian countryside and especially afflicting less-favoured rural areas with their semi-subsistence farms (Oțiman 2008, 2009).

Following enlargement of the European Union to include Romania in 2007, farms in the country have offered corroboration for a theoretical framework under which there is a nexus between financial assistance and performance on farms as regards efficiency. This is obviously a particular reference to the grants and other payments disbursed to farmers under the EU's Common Agricultural Policy (CAP) and considered to have had positive effects in raising technical and economic efficiency through on-farm diversification, first and foremost in the direction of rural tourism and agritourism (Galluzzo, 2014, 2016).

The seven-year 2014-2020 period sees the EU deploying the CAP in fostering the competitiveness of Romanian farms without compromising sustainability, through allocation of more financial resources under the CAP's second pillar – as a direct extension of previous modernisation measures pursued under the SAPARD programme (Lile et al. 2015). The latter authors note how more than 28% of European farms are located in Romania, with this implying a status for agritourism as an unique opportunity for young farmers that allows new challenges of socio-economic marginalisation in the countryside to be faced up to, while also encouraging a revitalisation of rural space in circumstances in which the environment is also protected and multifunctionality achieved. Multifunctionality and the diversification of on-farm activity represent two incentives helping with notorious bottlenecks in the Romanian primary sector as regards a low level of cooperation and a high degree of fragmentation of farmland, as well as very limited diversification of activity (Chiriteșcu 2011; Andrei et al. 2014).

In the European Union as a whole, the primary sector has experienced a complete change of agrarian productive model in the direction of a post-productivist paradigm that reflects international agreements ratified via the WTO to achieve a stabilisation of international markets, a curtailment of the over-production of agri-commodities and the promotion of pluriactivity and multifunctionality on farms, with a view to output being diversified and income fluctuations assuaged (Ilbery 1998; Van der Ploeg et al. 2000; Vieri 2012).

Agritourism (sometimes also 'agrotourism') is a typology of tourism able to integrate itself with a countryside lifestyle model that offers sustainability in an integrated relationship with specific natural, cultural and environmental features of given rural areas. Fortuitously, this is a suite of circumstance particularly in demand within a niche cluster of tourists that enjoy a high level of income (Ohe & Ciani 2012; Sivini 2013; Galluzzo 2015). Farms may thus come within a theoretical framework based on an endogenous development

pattern characterised by multi-level and multi-disciplinary features (Van der Ploeg 2006).

Agritourism was among the private tourist activity not available to foreign tourists prior to the collapse of Romania's communist regime. This leaves rural tourism of this and other kinds as an emerging opportunity for Central and Eastern European countries, with this contrasting against mass tourism given its sustainability and greenness. At the same time it is (appropriately) demanding where public authorities are concerned, since it favours those able to achieve a collaborative and integrated approach to strategic promotion of the activity (Faganel 2011; Bogan 2012). Socio-economic marginalisation in the Romanian countryside can be attenuated by agritourism, with a generated improvement in the strategic role it plays allowing maximised advantage to be taken of specific or unique local features, traditions and landscapes. This reflects the existence of a stable nexus of place-tradition-food-landscape that nevertheless requires, in effect as a *sine qua non* condition, that specific promotional services be mobilised to attract other investors from both the domestic and international markets (Bogan 2012; Calina et al. 2015).

In fact, the period since the early 2000s has entailed a certain 'rediscovery' of Romania's landscapes, across which many tourist attractions, famous monuments and items of cultural heritage are scattered (not least the painted monasteries in Bucovina and castles). At the same time, it has been possible to observe a proximity effect in terms of arrivals - from countries just beyond the Romanian border or from other European countries, with Germany and Hungary in particular to the fore. The last 20 years have thus brought both a rapid growth in tourist activity (including cultural and rural tourism) and an increase in numbers of tourist arrivals, with a tangible positive impact in economic terms, i.e. in regard to GDP (Cretu et al. 2015).

The fabric of Romanian tourism is clear potential when it comes to resources of cultural heritage, natural resources and traditional food all able to meet and satisfy the needs

of tourists, with positive socio-economic repercussions where rural areas are concerned (Dabija & Băbuț 2013; Postelnicu & Babija 2016). By contrast, the latter authors have indeed pointed to bottlenecks as regards the role to be played by public authorities in promoting tourism of the above profile, as well as in the installation of support infrastructure that could offer a marked further strengthening of the Romanian tourist sector, through raised competitiveness on the world tourist market, and hence a greater capacity to cope with the challenges the latter poses.

Where the EU approach is concerned, agritourism is regarded as a main thrust to strategies promoting multifunctionality and rural development in the countryside, as proposed in the Cork Declaration of 1996 and at other European conferences devoted to rural development. In fact, in every National Rural Development Plan financed by the CAP there are several actions aimed at stimulating and supporting rural tourism and the associated diversification of farm activities. This leaves the role of public authorities in the poor countries of Romania as pivotal, when it comes to planning for and managing EU funding made available for the stimulation of agritourism, the reduction of under-occupation and the curtailment of emigration out of the countryside, by means of financial and technical support for non-agricultural activity (Mortan 2006). Other priorities aimed at implementing and strengthening agritourism entail the upskilling of farmers and specific action to promote Romania's rural tourism through efforts to preserve rural space and its natural features in a holistic approach to environmental protection (Arion 2006; Pirnea et al. 2012).

In focusing the analysis on Romania, it was deemed possible to document marked post-2000 growth in tourism, with positive impacts on local communities able to satisfy a new domestic, but also exogenous demand exerted by tourists, albeit one that requires farmers and other entrepreneurs to make great efforts and display considerable skill in meeting those needs (Ion & Popescu 2013). These authors have argued that Romanian farmers have

achieved a complete change of farm management, while also giving partial thought to other activities closely connected to agritourism (Ion & Popescu 2013).

## Aim of the paper

One of the key priorities of the rural development process, reflecting the above-mentioned transition from a productivist to a post-productivist model, under the second pillar of the EU's Common Agricultural Policy, has been to promote multifunctionality in the countryside via diversification of on-farm activity by way of agritourism (Van der Ploeg et al. 2002). In the view of many authors a farm seen from the point of multifunctionality is a public good able to produce positive externalities that should be partially compensated for using specific public funds that valorise the role of farmers in protecting rural space. That said, opinions do sometimes diverge where the role of multifunctionality in the WTO scenario is concerned (Bohman et al. 1999; Anderson 2000; Cahill 2001; Potter & Burney 2002; Belletti et al. 2003; Abler 2004; Brunstad et al. 2005). Within the CAP, the role of agritourism has some political and economic implications, and its framework of payments embraces the idea that farmers be protected as they engage in productive structural change and progress with a role in defending the environment through multifunctionality and diversification of production (Potter & Burney 2002). This is all particularly true for those several European countries in which the productive model cannot be applied where there is extensive production, but where a sustainable agrarian model for production can be favoured with a view to rural space being protected (Brunstad et al. 2005). This of course denotes a rather high level of costs needing to be compensated for adequately by way of payments allocated under the CAP's second pillar.

Many researchers have investigated the evolution of the role the countryside and landscape have to play in the European agrarian scenario, as a reflection of a modernisation process that highlights functions and

attributes signalling a new role of farms and farmers, with the impact agritourism has had in reducing socio-economic marginalisation in the primary sector also being assessed (Van der Ploeg 2000; Van der Ploeg et al. 2000; Van der Ploeg & Roep 2003; Buijs et al. 2006; Horlings & Marsden 2011).

Likewise, the main purpose of work detailed in this paper has been to apply a quantitative model in order to assess whether subsidies allocated under the first and second pillars of the CAP have served to help agritourism diffuse throughout Romania's regions in the seven-year period 2007-2013. Analysis has further focused on the possible impact of diversification in the countryside via agritourism and the funding disbursed by the CAP on permanent emigration from Romania's rural areas, with the main correlations between these variables being determined.

## Methodology

This paper reports on a quantitative approach applied to different sources of data from the 2007-2013 period, notably the dataset of the Farm Accountancy Data Network (FADN), as well as annual demographic statistics published by the Romanian Statistical Institute (INSSEE). The aim of the work detailed here has been to evaluate the variables of permanent emigration and agritourism (enterprises and bed places) in Romania, as published in TEMPO online time series. Back in 1965, the predecessor of the European Union used Council Regulation 79 to establish annual analysis of a sample of farmers by way of the Farm Accountancy Data Network (FADN), which has aimed to assess the impact of Common Agricultural Policy decisions concerning European farmers. FADN is now an annual EU survey taking in some 80,000 European farms and a population of about 5,000,000 farmers located in all EU Member States. This survey is thus able to offer a representation of more than 90% of the area utilised agriculturally across the EU.

The quantitative model referred to used a multiple regression model to evaluate the main relationships present in regard to the

funding the first and second pillars of the CAP disburse, with a view to emigration from the countryside being limited and agritourism tourism. The particular focus here are the eight NUTS 2 regions present in Romania, i.e. North-West, Centre, North-East, South-East, South-Muntenia, Bucurest-Ilfov, South-West-Oltenia and West.

The multiple regression model referred to has assessed parameters using a panel data approach, i.e. an unbiased method by which to reduce and explain the heterogeneity in units under observation over time (Gujarati 2011). The method is pivotal to analyses of the most significant changes ongoing in all Romanian regions over the study period, with effects within and beyond different clusters of administrative units explaining the main information within and between groups, and thus reducing the statistical error term greatly (Baltagi 2009, 2011).

The linear model of regression referred to is expressed as follows (after Baltagi 2009; Gujarati 2011):

$$y_{it} = x_{it}\beta + c_i + z_i + e_{it} \quad (1)$$

where:

$i = 1...N$  - are units of observation in terms of Romanian regions,

$t = 1...T$  - is the time of investigation from 2007 to 2013.

In this formula,  $\beta$  is a vector  $k \cdot 1$  dimension made by  $\beta_1, \beta_2... \beta_k$  parameters, while  $x_{it}$  is a vector  $1 \cdot k$  dimension of explanatory independent variables referring to the time of observation. The term  $c_i$  is a non-observed component, or rather an unobserved heterogeneity in variables, and, especially whether  $i$  is an individual unit of investigation, the latter takes the name of an individual effect or individual heterogeneity. Furthermore, the term  $c_i$  in the equation is able to generate a correlation between  $y_{it}$  and  $y_{is}$  even if the error terms  $e_{it}$  are uncorrelated over time and among different units of observation;  $z_i$  is a vector of variables and - considering the unit of observation - it is time invariant. The error term  $e_{it}$  is made by residuals called idiosyncratic errors

or disturbances. One of the main reasons for panel data to be used reflects the problem of variable omission, and, as this is particularly true of a cross-section dataset, the model has a random variable non observable as  $c_i$ , and can be written (after Baltagi 2009, 2011; Gujarati 2011) as:

$$y_i = x_i\beta + c_i + e_i \quad (2)$$

Where  $c_i$  is a random variable impossible to observe in the model; if it is not possible to exclude that  $cov(x_{ki}, c_i) \neq 0$ , where  $x_{ki}$  is the  $k_{nth}$  variable, for any  $k$ , omitting  $c_i$  from the estimated model because it is not an observable term or is not available, the model absorbs the error term in this equation (after Baltagi 2009, 2011; Gujarati 2011; Verbeek 2006) as:

$$y_i = x_i\beta + \eta_i \quad (3)$$

where  $\eta_i = c_i + e_i$  could cause serious issues because  $x_{ki}$  would be an endogenous variable [ $cov(x_{ki}, \eta_i) \neq 0$ ] in the above mentioned equation and without more specifications it is not possible to assess  $\beta$  in a consistent and unbiased way.

In general, this paper has used a function of a linear regression fixed effect (FE) panel model written in algebraic terms as in the following equation (after Asteriou & Hall 2011; Verbeek 2006; Baltagi 2011):

$$Y_{it} = a_i + x'_{it}\beta + u_{it} \quad (4)$$

where:

$a_i$  values - are  $N$  constant unknown parameters,  
 $t$  - stands for the time periods of observation,

i.e. 1, 2, 3, ... T,

$i$  values - are the analysed sections, i.e. 1, 2, 3, ... N,  
 $u_{it}$  - is a statistical error term.

The panel data fixed effects model is useful in the investigation of a panel dataset, where the assumption is of fixed effects, or rather where the theoretical model has individual effects such as in our case, with each Romanian region in each year of investigation, with a nexus to the different Romanian NUTS 2 regions. This is to say that no individual effect is constant, all in each section are unknown,

even though the section in contrast can be seen as fixed (Asteriou & Hall, 2011).

A simple way to define the fixed effect in a panel data model is to introduce into the regression model a dummy variable in every unit of observation, or rather in every  $i$ -th Romanian region (Verbeek 2006; Asteriou & Hall 2011; Gujarati 2011; Baltagi 2011). The function in that case is written as:

$$Y_{it} = \sum_{j=1}^N \alpha_j d_{ij} + x'_{it} \beta + u_{it} \quad (5)$$

where:

$d_{ij}$  - is 1 if  $i = j$  or 0 otherwise and the model is made by  $N$  dummy variables estimating the parameters  $\alpha_j$  and  $\beta$ .

In this model, basic and pivotal assumptions are that  $u_{it}$  is independent and identically distributed among all investigated Romanian regions and over the time of investigation, as well as that  $u_{it} \sim N(0, \sigma^2)$  (Gujarati 2011). Comparing the random effects panel data model to the fixed effect the latter is able to estimate individual effects as a part of the error term in a stochastic way (Verbeek 2006), hence effects in fixed effect panel data are related to regressors.

The estimation of parameters was carried out using the open source GRET software. The pooled ordinary least square (OLS) estimator has been useful but it has not been efficient comparing it to the fixed effect (FE) panel data in terms of parsimony, using the Akaike Criterion, or the Hannan-Quinn and Schwarz criterions as well. In fact, findings in statistical parameters have pointed out that the fixed effect model proves more thrifty than pooled OLS (Akaike 1973; Schwarz 1978; Hannan & Quinn 1979).

The Hausman Test has proved useful in deciding whether fixed-effect or random-effect panel data are best (Hausman 1978). This statistical test has been able to demonstrate if there is a significant statistical difference between the two approaches (Verbeek 2006), and it has provided justification for the use of fixed-effect panel data in estimating a model of regression with non-significant errors in model parameters (Asteriou & Hall

2011). The random-effect panel data assessed by the generalized least square (GLS) proves less efficient than pooled OLS and FE panel data, because there are fluctuations over the period of investigation; furthermore, the Hausman Test points to fixed effect as more adequate for our investigations than pooled OLS and random-effect panel data, when it comes to assessing the variable growth characterising agritourism in Romania's NUTS 2 regions.

## Results and discussion

In Romania, the period since the early 2000s has brought considerable growth in farm-holidays farms and bed places in the agritourism sector, even if the economic crisis of 2008-2011 exerted a direct impact on the diffusion and consolidation of this typology of tourist activity (Fig. 1). Surprisingly, findings indicate a sharp increase in the agritourism supply, with this rising by 70% from 2011 to 2015 - a change that could be correlated with funding allocated under the Common Agricultural Policy to promote diversification in agricultural activities as rural tourism and agritourism, via Axis 3 of the Romanian National Rural Development Plan (NRDP) for the period 2007-2013. According to the European Commission, the NRDP 2007-2013 has financed actions creating, improving and diversifying tourism facilities and attractions, and modernising the basic physical infrastructure in rural areas, thanks to a total budget equal to €3,048,933,926, and with some 28,924 job opportunities created.

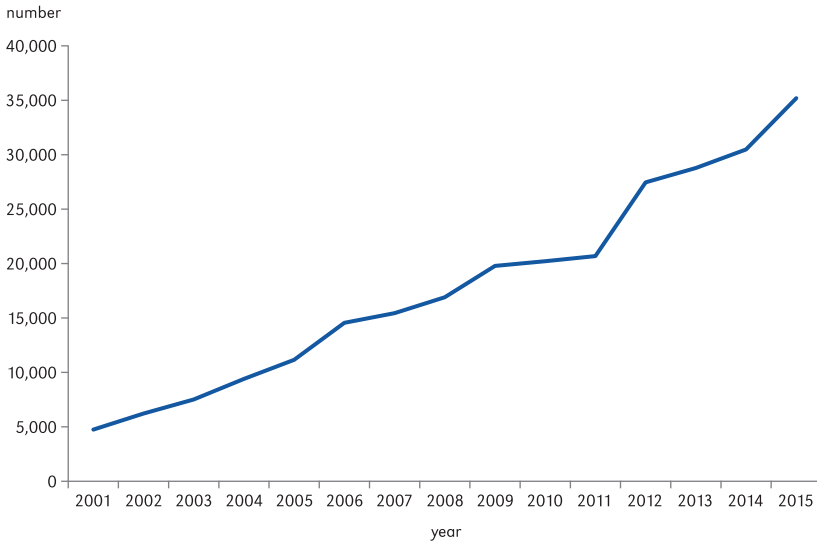
Time series for agritourism in Romania point to a significant increase in these structures in all regions, even if as a consequence of a growth of tourists arrivals; at the same time, via financial subsidies allocated by the European Union under the second pillar of the Common Agricultural Policy, there has been growth in Romanian agritourism facilities, which are mostly managed by a young generation of farmers displaying high levels of skill and competence.

Arrivals from the domestic market prevail over those originating abroad, even if the period since 2004 has brought significant growth

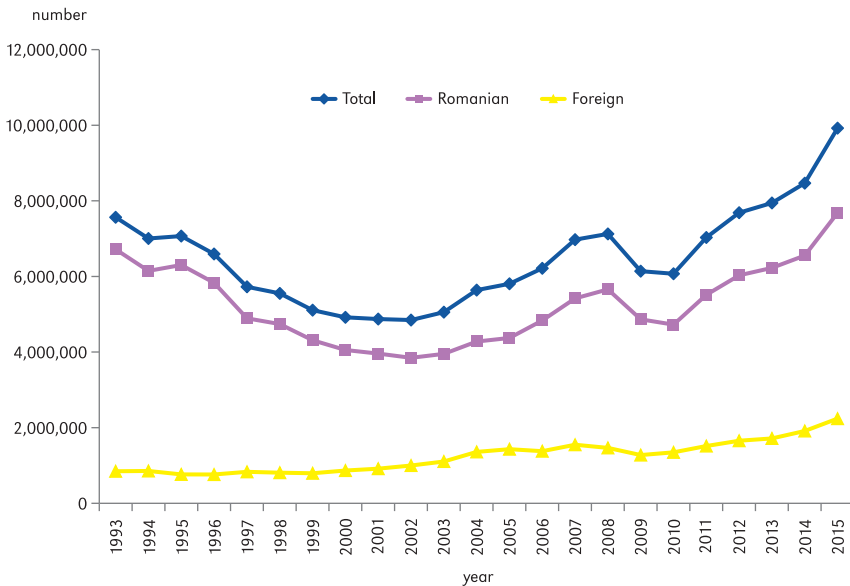
in numbers of foreign arrivals, in particular from European countries as opposed to from the non-European Nations category (Fig. 2) – which represents one-ninth of the overall value and has in fact proved less sensitive to the

negative effects of economic crisis than in the case of arrivals originating on the domestic touristic market.

Tourists in Romania prefer to spend holidays at tourist resorts rather than in the Danube



**Figure 1.** Accommodation capacity in Romanian agritourism in terms of bed places  
Source: own elaboration based on data at INS 2016 (the same applies to Figs. 2-7).



**Figure 2.** Total arrivals of tourists in Romania

Delta area even if, over time, and in particular since 2005, there has been a marked decline in numbers of people deciding to spend their holidays at the seaside (Fig. 3). Findings have corroborated a hypothesis according to which

Romania is more specialised in mountain tourism than in respect of other typologies, notwithstanding the positive opportunities afforded for villages, predominantly those located in inland areas, to implement their

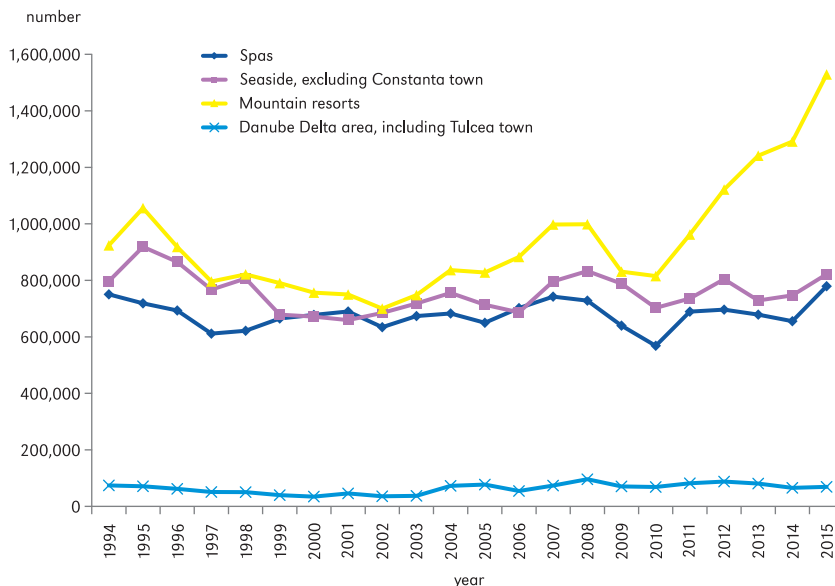


Figure 3. Arrivals of tourists in Romania in relation to the country's different tourist areas

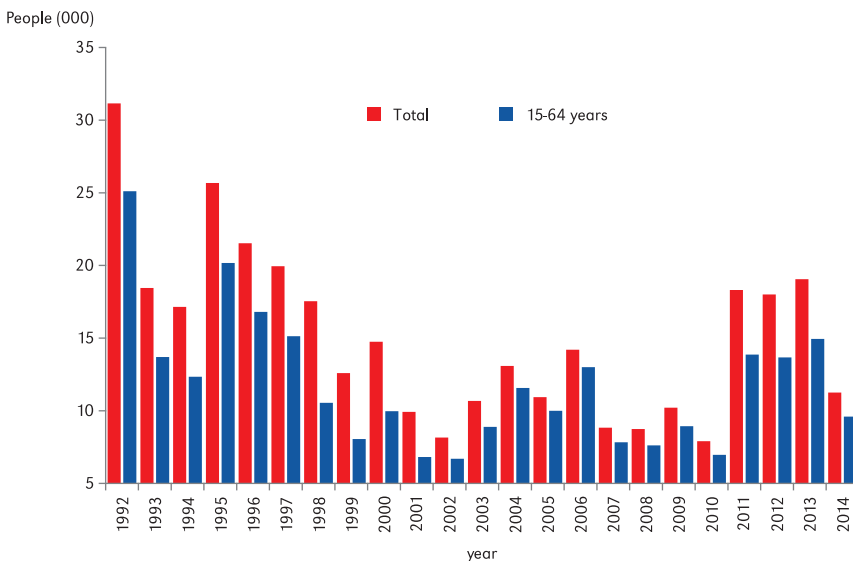


Figure 4. Permanent emigration from Romania



income and job opportunities. Tourism in all the multiform typologies is a positive factor when it comes to reducing permanent emigration out of the countryside – of the kind that arose post-2008, as a consequence of economic crisis, and which has involved the most economically active people in the 15-64-year age cohort (Fig. 4).

Over the seven-year period of investigation, findings as regards some of the analysed variables have pointed to extreme fluctuations relating to both agritourism and the flow of emigration out of Romania (Tab. 1). At the same time, the level of total assets and farm net incomes have been remained very steady, due to poor statistics when it comes to farm area, which on average in the FADN dataset is close to 10 hectares – or three times the average value published by Eurostat, and equal to 3.44 ha. In general, funding allocated under the CAP has been above a level of 2000 euros per year, with payments disbursed under the CAP's second pillar to favour rural development assuming on average a level of one third of the all payments made in the CAP context.

The Spearman's Correlation points to the most significant relationships pertaining between the variables of total emigration, workforce in the primary sector, usable agricultural

areas, total funding allocated by the CAP (first and second pillars), and financial subsidies disbursed under pillar II. In general, a direct correlation has been noted between the variable emigration and workforce in the primary sector. At the same time, the variable levels of subsidy allocated in favour of rural development have highlighted a direct correlation with the variable of permanent emigration; hence, if the main purpose of the European Union is to reduce the emigration out of the countryside, it is pivotal that financial resources favouring rural areas be implemented, with some specifically disbursed towards rural areas lagging behind (Tab. 2). Land capital in terms of utilisable agricultural area was not found to be associated with permanent emigration out of Romania, or with the share of the workforce in the primary sector.

The main findings of the multiple regression model using the fixed-effect panel data have highlighted how total subsidies allocated under the first and second pillars of the CAP have acted directly on the development of agritourism in terms of active enterprises, and how this has been particularly true when it comes to the positive impact of decoupled payments disbursed under the CAP's first pillar (Tab. 3). In Romanian regions characterised by the presence of farms able to receive

**Table 1.** Main descriptive statistics over the period of investigation (2007-2013) of Romanian farms

Variable	Mean	Std. Dev.	Min	Max
Agritourism	2,478.054	2,429.39	30	10,925
Emigration	1,625.893	1,190.34	419	6,148
Usable Agricultural Areas	10.29	3.23	5.03	16.3
Farm Net Income	5,555.964	3,180.11	448	19,246
Total assets	64,197.04	84912,67	15,821	391,973
Net investments	-442,01	1073,04	-1,852	6,013
Total subsidies CAP	2,073.26	1,083.05	662	6,243
Subsidies on crops	131.01	493.86	0	2,470
Subsidies on livestock	297.64	655.47	14	4,503
Less favour areas payments	13.57	28.99	0	123
II pillar CAP subsidies	681.62	482.40	87	2,880

Source: own elaboration based on data at INS 2016 and ARD 2016 (the same applies to Tabs. 2 and 3).

**Table 2.** Main correlations of some variables in seven year time of study (2007-2013)

	Permanent emigration	Workforce in agriculture	Usable agricultural areas	Total subsidies CAP	II pillar CAP subsidies
Permanent emigration	1				
Workforce in agriculture	0.3943*	1			
Usable Agricultural Areas	0.2298	0.0678	1		
Total subsidies CAP	0.3585*	0.1285	0.6649*	1	
II pillar CAP subsidies	0.3042*	0.3729*	0.6032*	0.6699*	1

\* significance at 5% level

**Table 3.** Main findings in the fixed-effect panel data regression model. Dependent variable agritourism

Variable	Coefficient	Std. error	t-value	p-value	Significance
Constant	4,067.65	332.331	12.23	<0.00001	***
Utilised Agricultural Area	-542.104	115.541	-4.6919	0.00003	***
Farm Net Income	-0.139923	0.0586651	-2.3851	0.02178	**
Total assets	-0.012099	0.00212835	-5.6847	<0.00001	***
Net Investment	-0.260003	0.357746	-0.7268	0.47149	n.s.
Total subsidies allocated by CAP	1.04411	0.253693	4.1156	0.00018	***
Rural development II pillar CAP	-0.0459724	0.577437	-0.0796	0.93693	n.s.
Decoupled payments	3.50839	1.17479	2.9864	0.00475	***

\*\* at 5%; \*\*\* at 1%; n.s. not significant

more in the way of funding there has been a clear diffusion of agritourism. No significant role is being played by financial support allocated under the second pillar of the CAP, when it comes to the stimulation of agritourism. The version pursued in Romania (though the same applies to many other European countries, such as Italy) seems a typical tourist structure located in small rural villages in which the level of investment is poor and there are at the same time inadequate total assets, in terms of agrarian capital, but also

machinery and capital investments. The consequence is a negative impact on the level of agrarian assets and new, more efficient technologies. Utilisable agricultural area correlates indirectly with agritourism, in that these typologies of tourist structures are typical for rural villages characterised by small areas of farmland per farm, with agritourism here being a unique factor in the socio-economic diversification of farm activity aimed at increasing levels of farm income and technical-economic efficiency.

The multiple regression model using the fixed-effect (FE) panel data approach has proved more suitable than the model founded on the random effect, even if some findings have been pointed out using the ordinary least square (OLS); in this case with criteria for model selection, like Akaike, the Hannan-Quinn information criterion and Schwarz highlighting how the fixed-effect panel data has been more economically and statistically efficient than OLS.

In categorising Romania’s regions, use has been made of a cluster analysis. Cluster analysis points to 4 groups of Romanian

regions; among which the first cluster brings together more than 50%, and the second 34%. Three Romanian regions have been classified in cluster 4, which includes NUTS 2 units located in the Bucharest-Ilfov macro-region, in which only a few agritourist objects are scattered. Here, there are values lower than in other counties, such as Teleorman, Giurgiu, Vrancea, for emigration from the countryside as a percentage value comparing 2014 data with those from 1992 (Fig. 5). Cluster 1 is characterised by a high level of emigration from the countryside, poor values for the utilisable agricultural area, a low

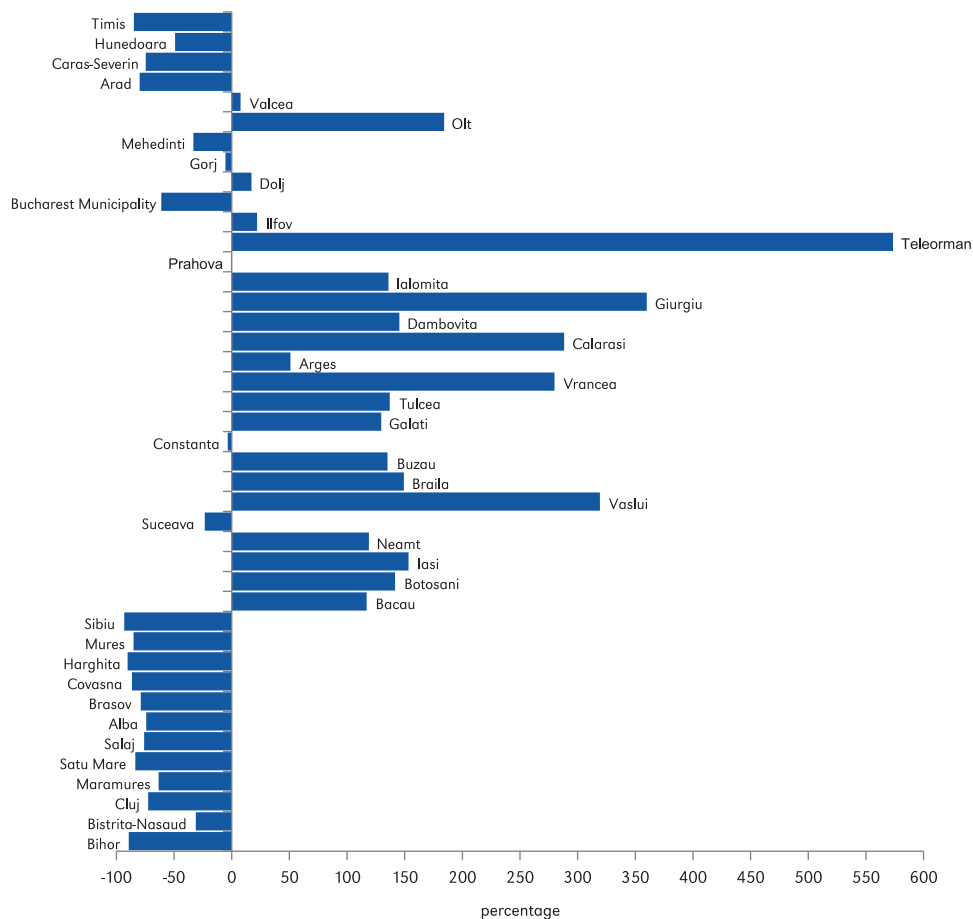


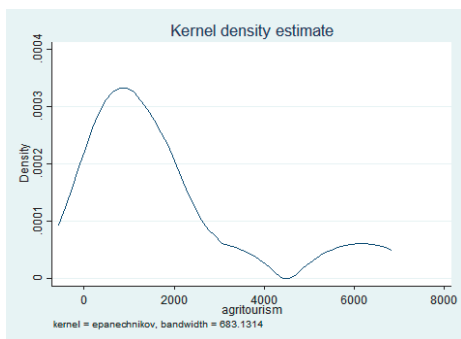
Figure 5. Percentage levels of permanent emigration for different Romanian counties over the 1992-2014 period

level of assets and poor values for funding allocated by the European Union under the CAP. By contrast, cluster 4 is characterised by a low level of emigration, and the highest figures for utilisable agricultural area, as closely linked to a significant level of farm net income, a significant endowment with assets of all kinds and the highest figures for the level of funding allocated by the European Union to Romanian farmers.

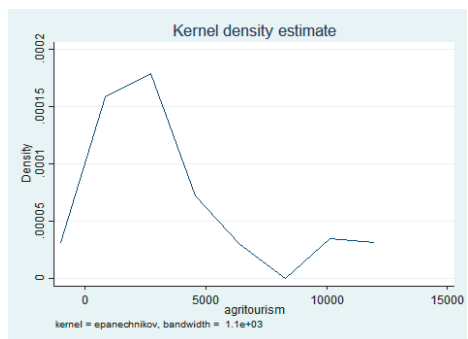
The effect of the evolution of agritourism in the Romanian countryside in two different years of analysis (2007 versus 2013) is revealed using the Epanechnikov kernel method, which points to growth in farm-holiday farms

that has been of unchanged distribution, even if the 2013 graphical depiction has moved significantly to the right, indicating a change in median values to reflect a higher level of growth in agritourist enterprises (Fig. 6).

Findings for the years 2007 and 2013 assessed by the Epanechnikov kernel method highlight a marked shift in funding allocations under the Common Agricultural Policy, and specifically its first and second pillars. By 2013, the graph depiction shows a marked movement to the right, indicating a change of median values, with a higher total amount of funding disbursed in 2013 than in 2007 (Fig. 7).

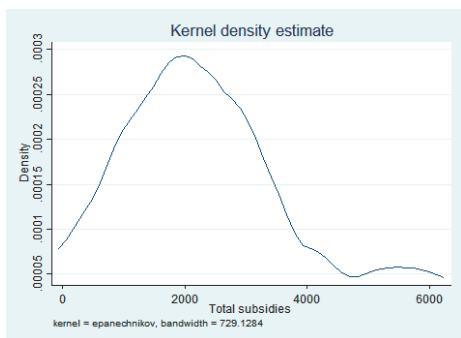


2007

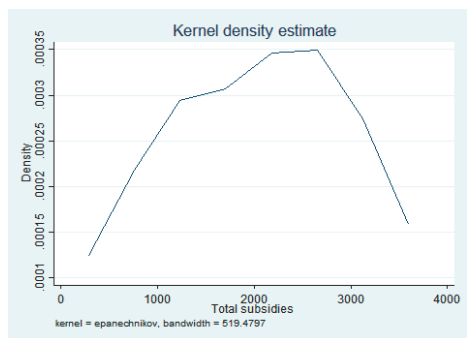


2013

**Figure 6.** Kernel density data for the variable of agritourism in Romanian countryside in two different years of observation, using Stata/IC 13.1



2007



2013

**Figure 7.** Kernel density of a variable relating to funding under the Common Agricultural Policy in two different years of observation, using Stata/IC 13.1

## Conclusion

Agritourism represents a good opportunity for Romanian farmers to increase their on-farm net incomes, in the context of rapid growth in tourist arrivals from abroad (even if the predominant demand is still being exerted by European countries, rather than non-European states). The main bottlenecks relating to Romania's farms concern the ageing entrepreneur class and poor infrastructure, not only when it comes to motorways and railways, but also in terms of placement on specific international touristic markets by way of ICT. The role of financial subsidies allocated by the public administration should be considered, in respect of the level of investments in infrastructure, the promotion of tourism internationally, land capital (as regards the enlargement of areas of utilisable agricultural land) and the diffusion of technologies. Action in respect of all of these problems would tend to raise efficiency, in particular in rural areas that are lagging behind, for which agritourism represents a unique opportunity for emigration to be curtailed and socio-economic marginalisation in the Romanian countryside arrested.

All EU Member States have Rural Development Plans for 2014-2020 that propose the further pursuit of rural diversification, principally by way of agritourism and other activities relating to green tourism. Nowhere should this be more true than in Romania, where agriculture employs more than 30% of the labour force and there is a high risk of soil degradation as a consequence of emigration away from rural areas. Summing up, multifunctionality is not a priority in the rural development process but it is the main pillar for an integrated and cohesive rural space in all European countries.

To avoid a waste of economic resources under the Rural Development Plan for 2014-2020, it is important that efficient and integrated use be made of financial resources allocated both by the L.e.a.d.e.r. project and by measure 7, whose purpose is the renewal of rural areas through the introduction of basic services and infrastructure for country-dwellers, with a view

to their creating small-business entities capable of achieving a higher level of competitiveness. The L.e.a.d.e.r. approach thus represents one of the best patterns by which to improve living conditions in Romania's rural areas by way of the generation of small initiatives able to stimulate an imitative effect in other rural communities in the perspective of a rural district seeking to take advantage of specific features of its space, not least as regards food and attractions from the point of view of tourism. For example, it is important that the National Rural Development Plan should integrate its considerations of agritourism on the one hand, and forestry and its sub-products on the other, in line with a rural district promoting and financing certain projects in rural development that involve different actions relating to environmental protection and the generation of turnover by young farmers.

Unfortunately, the funding allocated under the first pillar of the Common Agricultural Policy seem to have a greater economic impact in the Romanian countryside than do payments disbursed under the second pillar. In fact, the financial subsidies allocated via the latter point to a pivotal role in supporting investments to diversify farm activities, achieving partial integration, e.g. via less-favoured status payments, farmer income and the achievement of stable additional cash flows useful in stimulating the further and extra sources of income so fundamental if agricultural activities including agritourism are to be diversified.

Editors' note:

Unless otherwise stated, the sources of tables and figures are the authors', on the basis of their own research.

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