ROMANIA`S ABSORPTION POTENTIAL OF E.U. FUNDS FOR RURAL DEVELOPMENT – A REGIONAL ANALYSIS

Dachin Anca
Academy of Economic Studies in Bucharest, Faculty of Economics

Ailenei Dorel
Academy of Economic Studies in Bucharest, Faculty of Economics

The post-accession programs supported mainly by the European Union create a better chance for the modernization of the agricultural sector and the rural area in Romania. However the funding process depends highly on the absorption capacity of the potential beneficiaries. The paper focuses on the regional distribution of financial allocations for rural development, especially for agricultural holdings, by correlating them to the determinant factors of the absorption capacity. The distribution of selected applications at regional NUTS3 level reveals that poorer regions with high employment in agriculture have no advantage in the access to development funds.

1. Introduction
The process of Romania´s integration to the European Union determined major changes in the economy and society (Zahiu, 2006). The pre-accession programs (SAPARD) and later the post-accession programs based on non-refundable European support and funds from national public sources in agriculture and rural areas contributed to these changes (Toma, 2008). The development of rural areas is the main objective of the National Rural Development Programme of Romania 2007-2013 (NRDP, 2009), but this is also aimed by market policy measures in agriculture and other measures provided by post-accession operational programmes for development (Toma, 2009).
In 2010, after three years since the accession to EU, the programmes supported by European funds have made progress in institutional building, selection of applications for the funds and the payments process. The preparation period for some of the NRDP measures was extended because of institutional disfunctionalities and some of them will be implemented starting with 2010. The absorption of funds provided for investment in agriculture is still lagging behind, even if the process was accelerated in 2009. The rural area is changing not only as a result of post-accession programmes, but also of changes in the population behaviour in the new context.

2. Comparative analysis of projects` funding for rural development in the period 2007-2009
The only measure started for implementation in 2007 was *211 Support for mountain areas*, while the next measures started in March 2008 (NRDP Progress Report, 2009). At the beginning of 2010 most of the projects are in the stage of the funding process, so it is too early for evaluations of their impact. However the behaviour of potential beneficiaries of funds is reflected by the distribution of applications by measures and by the share of eligible projects in total applications. A high number of beneficiaries involves a larger part of rural population connected to the development process.
The following analysis takes into consideration the measures financed from NRDP, except the direct payments per hectare (measures 211, 212 and 214) and the direct complementary payment (measure 611). Regarding the total number of applications until 09.04.2010 (fig.1), in a good position are the measures *121 Modernization of agricultural holdings* and *141 Supporting semi-*

subsistence agricultural holdings. The measure 121 was attractive, since the 4529 applications in 2008-2009 sessions asked for a public support that is 1.4 times higher than the funds allocated by NRPD for the whole period 2007-2013. However only 34% of the applications were selected for funding, representing 53% of the total public allocation. The number of applications for the measure 141 is much higher, but the 6148 applications selected and contracted cover only 9.7% of the public allocation for 2007-2013. These projects have a lower average value and also lower potential for modernization of agriculture.

One of the most attractive NDRP measure was *322 Village renewal and development*, but the overwhelming number of applications was only partly selected, by reaching at present only about 52% of the total public financial allocation for 2007-2013.

Fig.1: Number of applications and contracts, by NRDP measures, 2008-2009
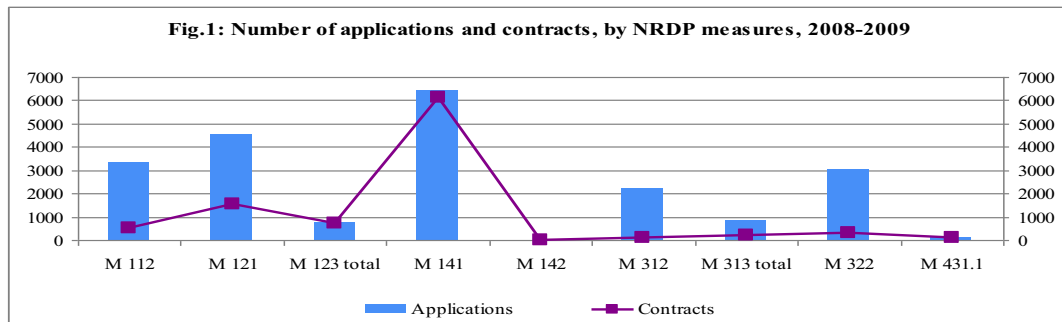
112 – Setting up of young farmers; 121 - Modernization of agricultural holdings; 123 – Adding value to agricultural and forestry products; 141 - Supporting semi-subsistence agricultural holdings;142 – Setting up of producer groups; 312 – Support for micro-enterprises creation and development; 313 – Encouragement of tourism activities; 322 – Village renewal and development, improving basic services for the rural economy and population and upgrading of rural heritage.

Source: Romanian Ministry for Agriculture and Rural Development, DG for Rural Development

The economic crisis had strong negative effects in Romania in 2009 and 2010 and is a factor that reduces the capacity of co-financing European programmes from national public and private sources, in accordance with the decreasing income of the state budget and of the potential beneficiary economic agents. Also there is reduction of the economic agents` absorption capacity of the financial allocation for market oriented activities, because of the decrease of the internal and external demand for goods. The crisis induces distorsions to the absorption capacity and also to expected results of financial support due to its deep impact and high uncertainity about the recovery process.

The measures for the improvement of competitiveness in agricultural holdings and semi-subsistence farms should contribute to the sustainable development of the Romanian agriculture. But the results of these measures will be seen only in medium and long term. The expected effects on agricultural producers are the increase of investments for modernization and transformation of holdings in entirely market oriented production units. The number of holdings able to comply with the quality standards for agricultural products should increase, as well as the number of units able to export agricultural products. The increase of investment leads to higher productivity and agricultural income, by having positive effects on the rural development.

## 3. Financial support for the modernization of agricultural holdings

The agricultural resources and the absorption capacity of the financial support for agriculture are unequally distributed in the territory (Alexandri, 2008). For the moment the best picture for this capacity is given by the regional distribution of the selected applications. Actually investment in agriculture is the key of rural development, since agriculture is still the main activity in rural areas. Potential beneficiaries that understand the advantages and the mechanism of the public support in a limited post-accession period and have the ability to apply successfully for funds

represent the main source for future rural development. The crisis may delay the process, but there is still time until the end of the programming period.

The following analysis is based on own calculations by using data from the Selection Reports of the Ministry of Agriculture regarding applications for the NRDP measures. The highest number of selected applications are in the regions South-East and South-Muntenia (fig.2), but their average total eligible value per project is lower than in other regions.
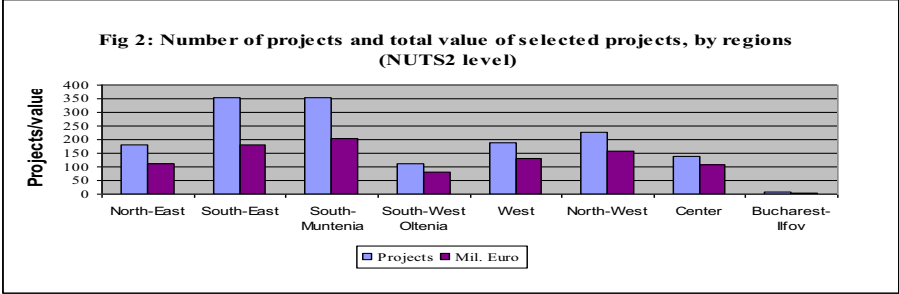

The deviation from the national average (in%) of the number of selected projects and their total eligible value by counties (fig.3-9) show the important local differences in improving the activity in agriculture.
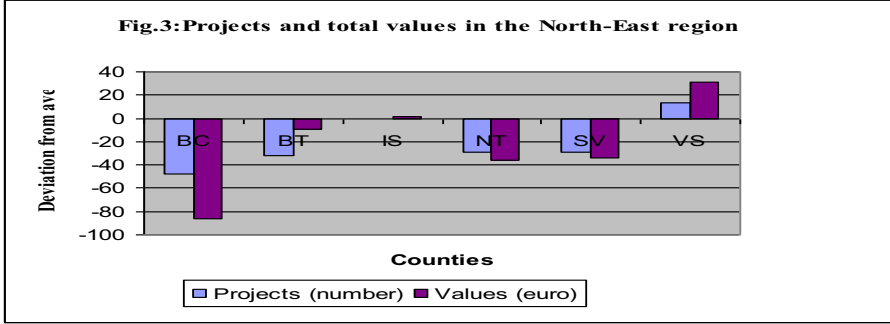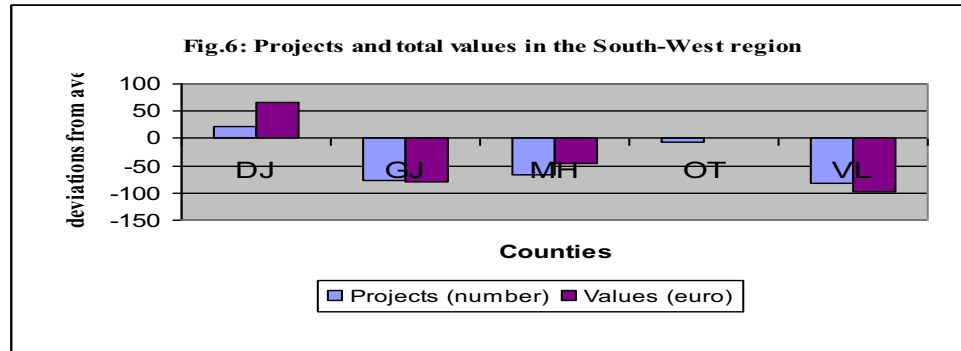

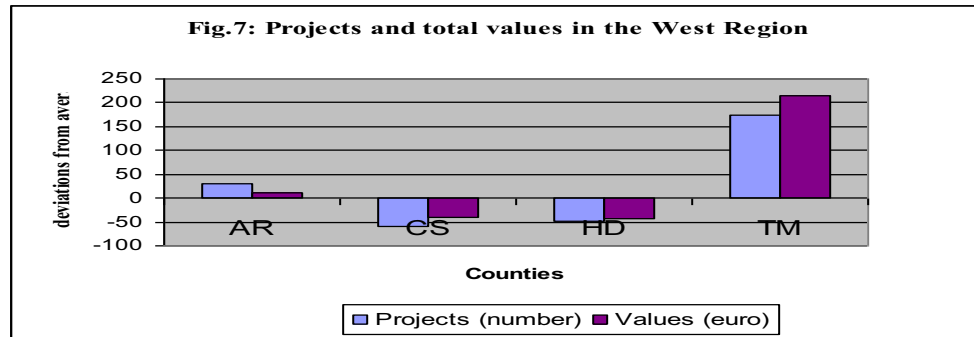BC- Bacău, BT-Botoşani, IS-Iaşi, NT-Neamţ, SV-Suceava, VS-Vaslui
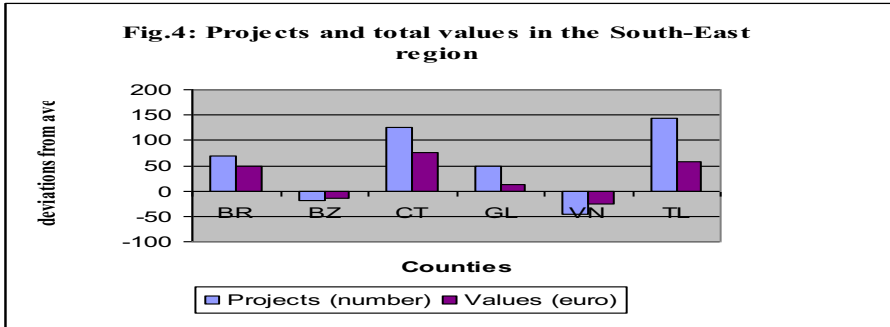
BR-Brăila, BZ-Buzău, CT- Constanţa, GL-Galaţi, VN-Vrancea, TL-Tulcea

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Fig.5: Projects and total values in the South Region & Ilfov county
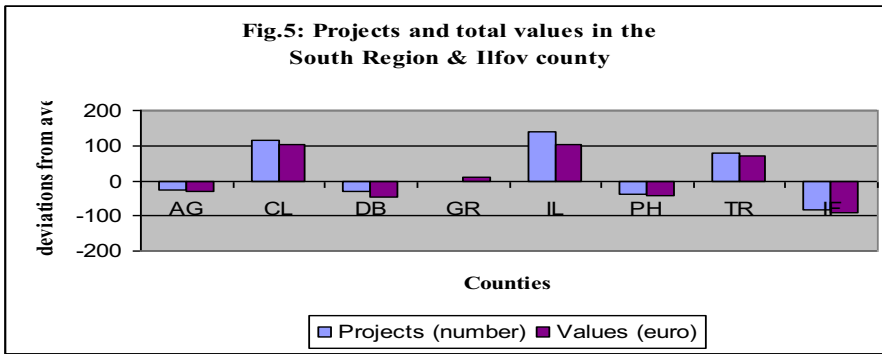
AG-Argeş, CL- Călăraşi, DB-Dâmboviţa, GR-Giurgiu, IL-Ialomiţa, PH-Prahova, TL-Teleorman, IF-Ilfov

Fig.6: Projects and total values in the South-West region

DJ-Dolj, GJ-Gorj, MH-Mehedinţi, OT-Olt, VL-Vâlcea

Fig.7: Projects and total values in the West Region

AR-Arad, CS-Caraş-Severin, HD-Hunedoara, TM-Timiş

Fig.8: Projects and total values in the North-West region
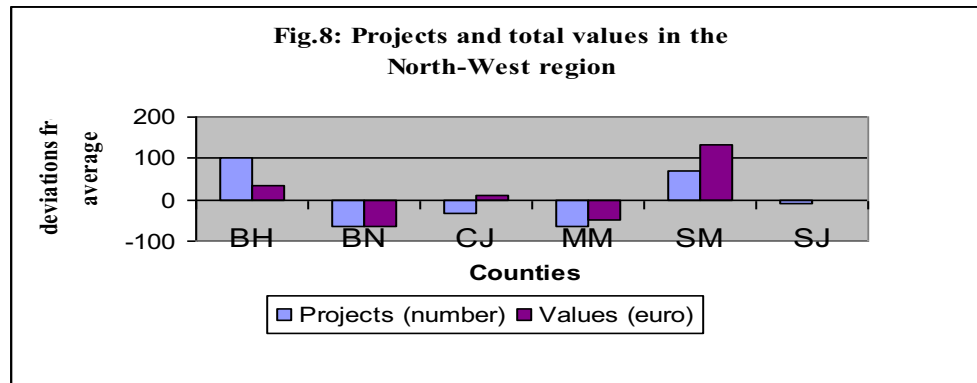
BH-Bihor, BN-Bistriţa Năsăud, CJ-Cluj, MM-Maramureş, SJ-Sălaj, SM-Satu Mare

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Fig.9: Projects and total values in the Central region
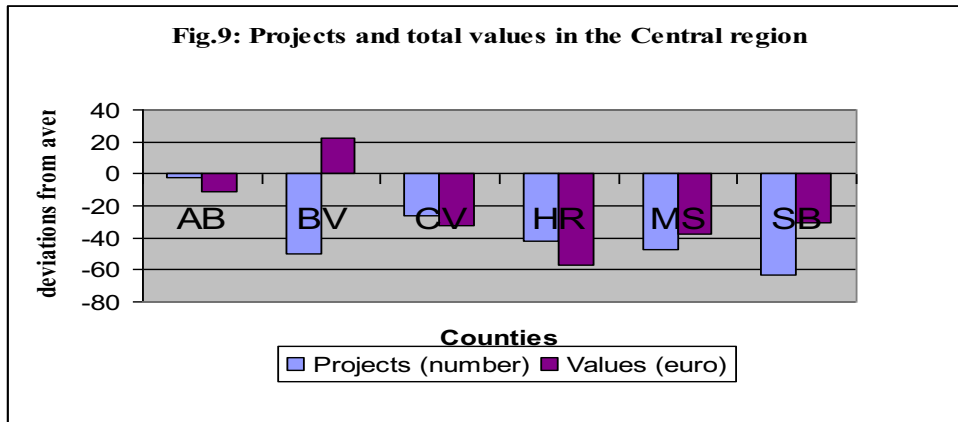
AB-Alba, BV-Braşov, CV-Covasna, HR-Harghita, MS-Mureş, SB-Sibiu

4. Determinants of the absorption capacity

The lack of homogeneity within the development regions in connection with the implementation of the 121 measure is due to the differential in endowment with natural agricultural resources, but also to other economic and social factors. The authors consider that the most important factors that determine the absorption capacity of the financial support at county level (NUTS3) are: gross value added (GDP), agricultural production, agricultural area, employment in agriculture, gross enrolment rate and share of rural population. While calculating the correlations, the factor "share of rural population" was eliminated from the calculations because of possible autocorrelations of error effects with employed population in agriculture.

The procedure used was the comparison of the number of projects and total eligible values of the projects with the absorption capacity given by the determinant factors in each county of every region.

Finally we tested the correlations between allocated funds and specified indicators. For that we calculated the deviations from the average level of each indicator for every county:

$$Dif(x_i) = \frac{x_i - \overline{x}}{\overline{x}} \cdot 100$$

Where:

Dif(x_i) – deviation from average level of x

x_i – value of x variable for each NUTS 3 level

$\overline{x}$ - average level of x

By testing separately each indicator´s influence over deviation of distributed funds (F_i) and the selected projects (P) we found that only the agricultural area (S_AGR_i) is significantly correlated from the econometric point of view with both variables. The influence of the other indicators is not significant in the econometric correlation, but the gross enrolment rate has a special position.

However, in the combination of influence factors the best results of the econometric tests obtained are in the case of the econometric equations that use the independent variables agricultural area (S_AGR_i) and employment in agriculture (Poc_AGR_i). The regression equations which add other factors besides the previously mentioned factors are not significant from the econometrical point of view. According to these conditions, we used the following equations of regression:

$DF_i = a*DS\_AGR_i + b*DPoc\_AGR_i + \varepsilon_i$
$DP = c*DS\_AGR_i + d*DPoc\_AGR_i + \varepsilon_i$
i = 1, 2, ..., 42 NUTS 3

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where:
DF_i - deviation from average of Funds
DP - deviation from average of Project number
DS_AGR_i - deviation from average of Agricultural Area
DPoc_AGR_i - deviation from average of Employment in Agriculture

ε_i - estimation error

The comparative results for the two variables are in table 1.

The agricultural area has the highest influence on the number of selected projects, as well as on the value of the projects (with a slight difference in favour of project numbers – the coefficient of correlation 1.72 compared to 1.668 for project value).

Table 1: Coefficients of correlation

Variable	Funds	Number of projects
DS_AGR_i	1.668837	1.720024
[t-stat]	6.263487	5.871887
DPoc_AGR_i	-0.445832	-0.522539
[t-stat]	-1.894956	-2.020167
C	4.37E-15	7.20E-15
[t-stat]	6.06E-16	9.08E-16
R squared	0.518237	0.481821

The authors consider that the correlation with the average size of the agricultural holding from each county would bring better results of the econometric tests, but there is a lack of necessary data for the moment. The findings of the procedure are normal because the efficient agricultural holdings need larger agricultural area. It is interesting that the employment in agriculture has a negative influence on the correlation to the allocated funds and the selected project number. Even if the value of the coefficients of correlation is low and at the limit of econometric significance, the results are normal if we consider the surplus of employment in agriculture.

5. Conclusions

The most successful measures for rural development in terms of application selection and their funding in the period 2008-2009 were those regarding the modernization of agriculture and the village renewal and development. The selected projects for investment in agricultural holdings (measure 121) are unequally distributed at regional level. The less developed regions North-East and South-West have also less accessed the development funds. According to the econometric analysis, the most important determinant of the absorption capacity at regional (NUTS3) level is the agricultural area, while the employment in agriculture has rather a negative influence.

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