

Returns on EU Funding for Human Capital Development in Rural Areas

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Abstract

The paper aims to explore at which extent the investments in human capital in rural areas could contribute to rural development and competitiveness. European Union is investing substantial resources for faster growth and competitiveness, addressing the faster development needs of the regions lagging development under cohesion policy. The EU cohesion policy emphasizes the role of the urban areas to reduce disparities in economic development, employment and opportunities between the most advanced and the most disadvantaged areas of the Union, while the rural development pillar under Common Agricultural Policy (CAP) focuses on promoting competitiveness and development of rural areas. Since the economic/social patterns and indicators of the rural areas deviate very much from the average EU values, the goal of reducing the regional development disparities cannot be achieved unless urban and rural development needs are considered together with the cohesion policy. The paper is based on the assumptions that: (a) investments in human capital are recognized as key drivers for competitiveness and development in both urban and rural areas and (b) under scarcity of available resources, the EU funds under cohesion and rural development policies could significantly contribute to human capital development in rural areas. The paper also aims to assess at which extent the EU funds have contributed to human capital development in rural areas and how these investments have benefited to rural development.

Keywords: *human capital, rural development, European Social Fund, European Agriculture and Rural Development Fund, territorial assets cohesion policy, absorption capacity, European Social Fund*

JEL classification: R11, A10, R58

Introduction

At present, the economic development and competitiveness of any region or community are dependent on the capacity of the respective area to support knowledge creation, learning and innovation processes. Global digitalized economy, as well as global challenges, is transforming labor markets: new jobs are developed, new competences and new skills are needed. To this end, investments in human capital become essential: it is the human capital which may generate innovation and it is also the human capital which is responsible for assimilating the

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innovation produced elsewhere and for integrating new methods in the economic activities and business management to foster sustainable development in rural areas.

European Union is investing substantial resources for faster growth and competitiveness, addressing the faster development needs of the regions lagging development under cohesion policy. The EU cohesion policy emphasizes the role of the urban areas to reduce disparities in economic development, employment and opportunities between the most advanced and the most disadvantaged areas of the Union, while the Rural Development Pillar (RDP) under Common Agricultural Policy (CAP) focuses on promoting competitiveness and development of rural areas. The goal of reducing the regional development disparities cannot be achieved unless urban and rural development needs are considered together and approached in a synergic manner. The narrowing of regional disparities is a structural adjustment that needs the identification of the main regional problems: since the economic and social patterns and indicators of the rural areas deviate very much from the average EU values, since rural development may be described as a territorial development, the rural development should be approached as an exclusive matter of common agriculture policy but, also as a policy strongly connected to regional development and cohesion objectives. The earmarking of the Lisbon and Europe 2020 priorities into these policies shifted the investment priorities of EU funds towards enhancing human resources and the knowledge intensive economic activities. With this view, under both the cohesion policy and the rural development policy (RDP), investments in human capital are recognized as key drivers for competitiveness and development in both urban and rural areas, based on the assumption that the quality of the labour force has a major effect on productivity and so on the economic development. To this end, member states should to ensure consistency between cohesion policy and rural development policy. The human capital is considered, thus, a key territorial driver for development in rural areas. From this perspective, we consider that the *development of human capital in rural areas* becomes a matter of great importance for both policy makers and scholars and the EU funds may have a significant contribution to the achievement of this objective. The paper aims to explore at which extent the investments in human capital in rural areas could contribute to rural development and competitiveness. The paper is based on the assumptions that: (a) investments in human capital are recognized as key drivers for competitiveness and development in both urban and rural areas and (b) under scarcity of available resources, the EU funds under cohesion and rural development policies could significantly contribute to human capital development in rural areas with positive effect on rural development. The paper aims to examine the returns on EU funding of human capital development actions in rural areas, respectively to examine how these investments have benefited to rural development. The methodology consists in literature survey, data collection and interpretation comparative analysis, survey and analysis of official programming documents and reports.

1. Human capital - key territorial asset for the rural areas

The literature on regional development identified various factors affecting positively the development of regions and areas. There is an extensive literature identifying the endogenous growth *territorial drivers* impacting the economic development of regions and territories, such as: (a) human capital (Lucas, 1988), (b) social capital (Putnam, 1993) (c) public capital (De Haan, 2007). Territorial capital of urban or rural areas may be defined as “*the amount and intertwinement of different forms of capital (or different resources) entailed in, mobilized and actively used in (and reproduced by) the regional economy and society*” (van der Ploeg&all, 2009 quoted in Zasada I&all, 2015). The territorial capital of rural areas consist of: (a) physical capital, (b) natural capital and (c) human resource (Zasada &all, 2015). All these elements are considered local assets of specific geographical delimited area and become part of the territorial capital (OECD 2006, Camagni, 2008) of which efficient exploitation significantly contributes to economic development. The physical capital in rural areas may be defined as the human-made infrastructure, consisting of immovable and durable production properties or built-up structures like rural housing, transportation and communication infrastructure (Zasada&all, 2015), facilities for protection against natural disasters (Vargas, 2010). The natural capital has a key importance for rural areas since it is conditioning the production of agricultural products, food, bioenergy, rural tourism, conservation of natural habitats and eco-systems; also natural capital of rural areas has a significant influence on supporting restructuring of agriculture, restructuring and diversification of rural economies (Lange, Zasada&all, 2013) as measures to support rural development and competitiveness. The human capital of rural areas consists of available skills, competences and education of the labour force and represents a key driver for development since it contributes to regional knowledge base and supports innovation processes (Krugman, 1991), entrepreneurship and productivity (Gennaioli&all, 2013); the availability of skilled and educated labor force in rural areas could generate increasing income and economic growth. All these local assets generate different returns on investments based on specific territorial endowments, for which reason it is important for policymakers to define the appropriate mix of policy options to make the best use of existing territorial capital so that deliver sustainable economic development, in both urban and rural areas. *Investment in physical infrastructure* promotes rural development: improvements in basic infrastructure enlarge access to markets, knowledge, and information supporting the diversification of rural economies and increased quality of life and it creates employment. *Investments in natural capital* could contribute to “*the provision of landscape features and diversity or as in the case of integrated, extensive or organic farming systems maintain or enhance good agri-environmental conditions and ecosystem functioning through crop and soil management practice*” (Zasada&all, 2015).

Investments in human capital may consist of a wide diversity of actions targeting the balanced age structure, actions addressing the migration from rural to urban areas (Zasada and all, 2015) as well as actions to support skills and knowledge acquisition through education and training; most actions addressing human capital are targeting, in particular, the farmers' needs through training and consulting services (since rural areas are still dependent on agriculture and related industries). Investments for enhancing entrepreneurship are also encouraged in case of rural areas through training programs and support actions with the aim of promoting the diversification of rural economies.

In the globalized economy, the economic development of any region, the economic development of rural areas included, is dependent on its capacity to support **learning and innovation**, which are also key processes for enhanced competitiveness and employment. To this end, investments in human capital in rural areas become essential: it is the human capital which may generate innovation and it is also the human capital which is responsible for assimilating the innovation produced elsewhere and for integrating new methods in the economic activities and business management to foster sustainable development in rural areas. The challenge in the rural regions is to improve educational attainment; in case of less developed countries it becomes also important „to favor youngsters' ongoing enrolment in the education system until they join the labor market and to facilitate their access to middle and higher education and a high level of vocational training and qualifications” (Regidor J, in *Innovative Rural Regions – Conference Report*, 2007). In terms of **knowledge creation and transfer**, rural areas seem to be disadvantaged: **the knowledge is created in universities and other research facilities which are mostly located in urban areas, but the effective use in rural based activities of the knowledge and innovation created elsewhere (in urban areas) remain a key element for fostering rural economic and social development and competitiveness**. These should provide incentives for policymakers to support, through various programs and tools, access to quality education and lifelong learning for rural population: only highly educated people could make use of relevant knowledge innovation, new technologies and new business management tools to support efficiency, competitiveness and sustainable development of rural areas. Also, fostering entrepreneurship represents an effective tool for the creation and support of rural businesses is a crucial goal for the integrated development and survival of rural economies (Mecheri&Pelloni, 2003). Thus, development of entrepreneurial skills of rural population, through education and lifelong learning, represents a prerequisite to stimulate business creation and diversification of rural economies as part of the specific tools to support rural development.

Technological change is very much influencing economic development and competitiveness at global scale, including the European Union case. *Technology is bringing unprecedented changes in rural areas*; transportation technology, geographical information systems (GIS), computational technology and information and communications technology (ICT) are the main categories of technology affecting the rural development. ICT remains important since it

provides new ways of dealing with disadvantages of remote and peripheral areas, rural areas included, by: (a) it can contribute to reduce costs associated with physical distances; (b) it facilitates access to information; (c) it can improve quality of life and services through telework, e-education, health services delivered on the web, etc.; thus, ICT may be considered as new advantages for businesses to locate in rural areas (OECD, *Innovative Rural Regions –Conference Report*, 2007). In rural areas, the use of ICT may be more difficult since „*high cost of infrastructure deployment leads to weak demand for ICT services, which further increases the cost of infrastructure and discourages rural businesses, which leads again to lower and declining population*” (OECD, *Innovative Rural Regions –Conference Report*, 2007). Thus, to support rural development and competitiveness, measures undertaken should focus on making ICT available to rural population and rural business; it involves both infrastructure development and education of rural population to make use of ICT. Thus, the development of education and training programs to equip rural population with *digital competences* should be foreseen so that to reduce the informational gap between rural and urban areas. ***Global digitalised economy***, as well as global challenges, are transforming labor markets. New jobs are needed; the new jobs at present „*require a high capacity to deal with disequilibria*” (Bollman, 1999); in this respect, the individuals capacity to correctly define and to solve the problem, as well as capacity to cope with change become essential endowments for human capital (Bollman, 1999). Based on the assumption that human capacities of the residents of a community represents the wealth creation resorts for that community (Reich, 1991), investments in better skills, better education and better educational attainment become critical for the development of human capital in rural areas in support for rural development and competitiveness.

Education and training processes remain thus, one of the most important tools for to increase the competitiveness of the human capital and its contribution to development in rural areas; main actions to be undertaken refer to: (a) *improving the educational attainment and participation through wider access to quality education, in particular wider access to upper secondary and university education*; (b) *improving the relevance of learning, in particular adult learning, as well as initial and continuous vocational training*, to better address challenges and needs of rural development – under this action, adult education, in particular, should provide relevant skills and competences and should shift from the *traditional transactional approach* (training and adult education are providing skills and competences to better respond to labor market/local economy requirements) to *transformational approach* (training and adult education should create future needs and not just to address existing needs). Investments in the education and training of the labor force is considered to have high private and public returns on investments: better education creates prerequisites for better jobs and higher salaries (private returns on investments), while better educated labor force enjoys the capacity to develop more complex tasks and to increase productivity with positive effects on economic growth (public returns of investments): the higher the

education, and consequently the quality of human capital, the larger the positive impact on economic development, in particular on GDP increase (UNICEF, 2014). However, local economic *development strategies in rural areas should focus on more than human capital development to stimulate local job growth* (Bollman, 1999). Existing studies revealed, since mid 90s (OECD, 2006 and UNICEF, 2014), that high-education rural regions experienced higher employment growth (or lower employment losses) than low-education rural regions. Investing in human capital is a necessary condition for promoting rural development, but it is not sufficient: this measure need to be accompanied by other measures to support rural development, the human capital development cannot solely support development, but it contribute significantly to boosting rural development.

2. EU policies and EU funding in support for human capital in rural areas: what returns on investment?

In the European Union, there are two main policies supporting development goals: the cohesion policy and the second pillar “rural development” under Common Agriculture Policy (CAP). Both policies are based on the assumption that the *human capital is a valuable asset for the development of any region or community, including rural areas* and important EU funding is allocated for human capital development and related priorities.

Under *cohesion policy* the **human capital development** is supported by the *European Social Fund (ESF) interventions*. The ESF remains a “soft fund”, used for human resources development, training, educational activities and social inclusion. It may be described as an important tool for policy change and agenda setting, mutual learning and innovation contributing to policy objectives ESF remains the European Union’s main financial instrument, aiming at improving human capital through better education and training, better employment, more effective social inclusion measures and better governance. ESF interventions are addressing also the specific human capital formation and development needs in rural areas, in particular related to: (a) increased access to quality education and higher educational attainment for students from rural areas, (b) acquisition of key competences and provision of relevant skills and knowledge for rural population for qualifications related to non-agricultural activities, (c) job creation in rural areas in non-agricultural industries, (d) social inclusion and support for disadvantaged population resident in rural areas.

Under the *rural development pillar of CAP*, the **human capital development** is supported by *European Agricultural Rural Development Fund (EARDF) interventions*. As a trend, in European Union, the employment in agriculture constantly declined, as productivity increased; the decrease in the number of jobs in agriculture and industry declined and consequently more jobs were created in services (European Commission, 2014); *mobility of labor force from agriculture to services or industry often requires to the rural population (previously employed in agriculture and related industries) for the acquisition of*

new set of skills. Consequently, the provision of training to rural population who want to find a job in a different sector (industry or services) can support this change. To this end, both ESF (under cohesion policy) and EARDF (under rural development policy as 2nd pillar of CAP) may provide financial resources and deliver project for training and retraining the rural population for qualifications in industry and services for sustainable insertion in the labor market. EARDF interventions targeting the human capital development goal are spatially targeted, focusing on the provision of skills and competences, for **rural population**, required for the management and development of all business (both agriculture based and non-agricultural activities) and for promoting sustainable development **in rural areas**.

Both policies have a territorial based approach. Under both the cohesion policy and the common agriculture policy (CAP) – rural development pillar (RDP), **investments in human capital are recognized as key drivers for competitiveness and development in both urban and rural areas**. The human capital development is a common target investment area for both the cohesion and the rural development policies, based on the assumption that *“the quality of the labour force has a major effect on productivity and so economic development. High levels of human capital mean that workers are more efficient and more innovative. In addition, high levels of human capital can increase the flexibility and adaptability of the labour force”* (European Commission, 2014). Under this circumstance, the focus of these policies on human capital could contribute to make easier the shift of the rural economy to the service based economy and to better exploit new opportunities as the market evolves.

Traditionally, the EU cohesion policy is designed as *“a set of specific funds and Community initiatives redistributing financial resources partly collected from the member states and partly gained from the Union’s so-called traditional own resources through the EU budget”* (Eiselt I., 2006) to **foster faster development and to reduce regional disparities across member states and to reduce development disparities between regions of the member states**. Starting with the programming period 2007-2013, the EU cohesion policy turned into a **support and investment policy for regional economic competitiveness**. The earmarking of the Lisbon and Europe 2020 priorities into the cohesion is a turning point in reforming of this policy *“shifting the focus of cohesion policy from traditional alleviation of regional disparities to enhancing human resources and the knowledge intensive economic activities in prospective competitive parts of the economy”* (Kalman, 2014). Under this new “investment” approach, the EU cohesion policy still remains devoted to its original aim **to reduce disparities in economic development, employment and opportunities between the most advanced and the most disadvantaged areas of the Union**. To address the reduction of regional development gaps, under EU cohesion, it is very much emphasized the **role of the urban areas as main contributors to the regional development**: cities as densely populated areas are supposed to have higher productivity (Cicccone et Hall, 1996), generate more knowledge outcomes (Feldman and Audretsch, 1999, Glaeser et al.,

1992), attract knowledgeable individuals benefitting from the accumulation of human capital (Moretti, 2004, Ciccone and Peri, 2006, Duranton, 2007), be more creative and entrepreneurial (Audretsch and Feldman, 2004). This cohesion policy approach is based on the assumption that, if the competitiveness is largely dependent on agglomeration economies and accessibility, than the role of cities within the economic landscape becomes relevant with respect to the economic performance of regions where these cities are located (McCann and Acs, 2011 quoted in Percoco M&Gagliardi L, 2015). Recent studies, on impact of the cohesion policy (Percoco M&Gagliardi L, 2015) indicate that EU Cohesion Policy has been effective in fostering development in lagging areas in Europe, but the its impact is strongly heterogeneous within NUTS 2 regions since urban areas was most favored and regional development strategies were development around urban development poles, while in case of rural areas, the positive impact of EU cohesion policy on rural areas is dependent on some specific factors, such as the proximity of the rural areas to the urban agglomerations. Consequently, we may consider that EU cohesion policy contributes differently to the development of rural areas and may have negative effects in terms of increasing intra-regional development disparities: *„Rural areas close to the city are those that have benefitted most and those driving the positive results on the full sample. These areas have experienced a significant diversion from their natural development trend taking advantage from the phenomenon of urban expansion, the need of available cheaper land in the surroundings of main urban agglomerates and the increasing accessibility of areas at the edge of cities. In this context the impact of a policy stimulating investments in infrastructures, business support and human capital creation has been particularly visible. Rural areas close to city centers were able to satisfy the increasing demand and to accommodate flows of people and business activities while taking advantage from a favorable location close to urban cores...Remote rural areas characterized by weaker economies and favorable geography, distant from core urban agglomerates, despite not significantly affected by the policy, show a negative sign suggesting that they were probably characterized by progressive out-migration and further depletion of their economic structure”* (Percoco M&Gagliardi L, 2015).

To avoid increased intraregional disparities between urban and rural areas, the ***rural development pillar under CAP is addressing the particular development needs of rural areas, so that to compensate the adverse effects of the urban centered development strategy developed under the EU cohesion policy***. The first generation of rural development activities – second pillar under CAP was introduced in the 1970s in the form of measures to support structural change in agriculture and to help maintain farming in areas affected by natural constraints. Starting with 1990, the rural development policy was extended to non-agricultural, territorially oriented, activities, which were clearly linked to the economic and social development of rural areas and enabled farmers to diversify into other activities; at present, the rural development policy is aiming to ensure economic and social progress in agriculture and rural areas while providing support for the

supply of reasonably-priced food to EU consumers. Although cohesion is not an explicit policy goal of the CAP, it is intended to take account of *„the particular nature of agricultural activity, which results from the social structure of agriculture and from structural and natural disparities between the various agricultural regions”* (Treaty on EU, art. 158). In the programming 2014–2020, there is a total allocation of EUR 95 billion for rural development. Interventions funded under EARDF for rural development are coordinated with interventions funded under cohesion policy, in particular with ESF operations so that to ensure human capital development, promotion of social inclusion poverty reduction and economic development of rural areas.

Both the EU cohesion policy and the rural development policy under CAP are *„spatially targeted”* (Crescenzi G, Giua M, 2014): (a) in case of the cohesion policy, eligibility and funding are granted on the basis of geographical criteria and its outcomes are also assessed in terms of the performance of well-defined spatial and (b) in case of rural policy, its targets are defined in terms of a combination of geographical, sectoral and socio-economic attributes that define ‘rural areas’. As a consequence the EU cohesion policy does not operate in a vacuum but it interacts at the territorial level with other EU policies, including rural development policy; this territorial interaction could - intentionally or unintentionally - might magnify or curb their influence on regional economic performance (Crescenzi G, Giua M, 2014). The territorial drivers for development are different under the EU cohesion policy and rural development policy under CAP: the cohesion policy focuses on the role urban areas in support for economic development and growth, while the rural development policy under CAP is developing interventions targeting exclusively rural areas and economic activities in rural areas. Both policies are emphasizing the **importance of the investments in human capital in support for the development for both urban and rural areas.**

Recent studies are providing empirical evidence about the contribution of EU funds under the cohesion and the rural development policies to human capital and economic development and growth; most studies focus on factors influencing the size of the positive or negative impacts of EU funding available (under the two policies considered) on territorial/regional development and growth. Studies conducted on 2000-2006 and 2007-2013 programming periods indicated a positive larger contribution to the regional development with regard to less developed regions; the positive impact in these regions is measured in terms of GDP/cap, GDP growth rate (Turpin and Védrine, 2010; Esposti and Bussoletti, 2008) and in terms of employment and cumulative job creation (Martin and Tyler, 2006). The positive impact of rural development and cohesion policy on the development of targeted areas and regions is largely dependent of their absorptive capacity: the impact is stronger in European areas with stronger absorptive capacity and weaker in the most disadvantaged areas (Cappelen, Castellacci, Fagerberg and Verspagen, 2003). The positive impact of these policies is also dependent on their innovative capacity: in their absence, the policy’s impact is non-significant or even negative (Crescenzi and Rodríguez-Pose, 2012). According to existing studies (Crescenzi

R, Giua M, 2014), indicate that “*the positive influence of the EU cohesion policy is stronger in the regions with the most favorable socio-economic environment, while the rural development policy, that is attracting increasing resources from the progressive reduction in funding of the first pillar of the CAP, is not systematically linked with regional economic growth. Some positive influence of rural development funding only emerges in the most advanced and better endowed areas: the rural areas of the ‘core’ of the EU not the most is advantaged and peripheral*”. Studies (Crescenzi R and Giua M, 2014; European Commission, 2013; Crescenzi R and all, 2013; Moh and Hagen 2010; Barca 2010) also indicate the negative effects on development and reducing the development disparities are largely determined by the absence of coordination among the cohesion policy and rural development policy under CAP, as well as poor coordination of these two policies with other relevant sectorally targeted or territorially targeted policies. During their respective developments, regional policy and the CAP have interacted and influenced one another. The cohesion policy and CAP accounted for more than 3/4 of the EU budget, reaching about 80% of the EU budget for the programming period 2014-2020 (European Commission, 2013). Before the 2000-2006 and during 2007-2013 programming period, CAP financial instruments (including those developed under the rural development pillar) and EU cohesion instruments (namely the structural funds) were used separately, in terms of objectives, programming (including coordination of interventions) and managing institutions. This experience indicated that the EARDF market measures (under first pillar of CAP) aiming to support agriculture favored dynamic, higher specialized and productive agriculture (Duhr and al., 2010) located in more developed areas, favoring, thus, the polarization of agricultural income and preventing less developed areas from benefiting from its support (ESPON 2004). The integration of CAP and cohesion policy under the same programmatic framework (specific to 2000-2006 and 2014 – 2020 programming periods), the coordination mechanisms enhances synergy effects at regional level, in particular to rural areas.

Most studies show consensus on the idea that the effect of total expenditure under cohesion and rural development policies is not positive in absolute terms but individual areas of policy intervention may produce heterogeneous effects (Dall'erba, Guillain and Le Gallo, 2007, Crescenzi R, Giua M, 2014, Rodríguez-Pose and Fratesi, 2004): ‘**education and human capital**’ investments are the key drivers for sustainable economic development and growth since they have actually *sustained medium term growth*, while support for ‘agriculture and rural promotion’, ‘infrastructure’ and ‘business’ was less effective. Investment in human capital through education as contributor to rural development should be carefully planned in developing countries (Schultz, 1979 quoted in Aceleanu&all, 2013): in rural areas, investing in education and skills, together with increasing the dissemination of knowledge are usually hindered by the low price of agricultural production, in particular in countries characterized by higher dependence on agriculture and related sectors as it is the case of Romania and other less developed EU member states. A recent study (Fratesi&Peruca, 2014) conducted on EU

member states from central and Eastern Europe confirmed the importance of investments in human capital as a driver for development in both rural and urban areas. The returns on investments in human capital tend to be more effective in areas which are more endowed with “*workforce flexibility, entrepreneurship, innovation, information and telecommunication are only effective when the region is endowed with human capital, while their impact in regions not endowed is not positive*”, unlike the investments in infrastructures sees to be more effective in agglomeration economies (developed around urban areas, leaving rural areas with limited possibilities to „*take advantage of the hard investments*” (Fratesi&Peruca, 2014).

Conclusions

Most studies show consensus on the idea that **education and human capital investments** are the key drivers for sustainable economic development and growth since they have actually *sustained medium term growth* in the European Union while support for agriculture, rural infrastructure and support for rural business proved to be less effective. The development and competitiveness of **rural areas** in European Union are underpinned by the assumption that *the quality of the human capital has a major effect on productivity and so on economic development*; consequently, the cohesion and rural policies should invest more effectively in human capital development, in particular in rural areas, so that to support more the shift of the patterns of the rural economy to the service based economy and to better exploit new opportunities as the market evolves. Investing in human capital is a necessary condition for promoting rural development, but it is not sufficient: this measure need to be accompanied by other measures to support rural development, the human capital development cannot solely support development, but it significantly contributes to rural development. Investments in human capital in rural areas should be consisted with and complemented by, under various EU policies, investments in rural infrastructure, in particular increased access to ICT and new technologies, so that to provide grounds for more effective contribution of EU funds to rural development. Higher returns on EU investments under cohesion and RDP, generating competitive advantages, depend on the capacity of the local community to effectively and efficiently exploit the territorial assets. (Zasada &all, 2015). To this end, during 2007-2013 and 2014-2020 programming period, interventions funded under EARDF for rural development are **coordinated** with interventions funded under cohesion policy, in particular with ESF operations so that to ensure human capital development, promotion of social inclusion poverty reduction and economic development of rural areas. Within European Union, Romania is a particular case defined by: employment rates in agriculture 6 times higher as compared to EU average, very low educational attainment, low productivity, high dependence of rural economies on agriculture. The very priorities of EU funded OPs for Romania remain: (a) *human capital development to stimulate local job growth* and (b) improving the absorption rate

with a particular focus on effectiveness of the absorption (effective results and impact for human capital and rural development) and not the nominal absorption rate (focus on the level of the absorption but not on the EU impact on development).

References

1. Aceleanu M, Molanescu G, Craciun L, Voicu C (2013), "The status of Romanian agriculture and some measure to take", "Ovidius" University Annals, *Economic Sciences Series* Volume XIII, Issue 1/2013
2. Audretsch, D.B., Feldman, M.P. (2004). "Knowledge spillovers and the geography of innovation" in Henderson, J.V., Thisse, J.-F. (Eds.), *Handbook of Regional and Urban Economics*, vol. 4. Elsevier, Amsterdam
3. Barca, F. (2009), *An Agenda for a Reformed Cohesion Policy*, Independent Report prepared at the Request of the European Commissioner for Regional Policy, Danuta Hubner, European Commission
4. Bollman R (1999), *Human Capital and Rural Development: What are the Linkages?*, Working paper 39, Statistics Canada – Agriculture Division, available at <http://ageconsearch.umn.edu/bitstream/28025/1/wp000039.pdf>
5. Burja C, Burja V (2014), "Sustainable Development of Rural Areas: A Challenge for Romania", *Environmental Engineering and Management Journal*, vol 13, no. 8
6. Camagni R, Capello R, Chizzolini B, Fratesi U. (2008), "Regional Competitiveness: Towards a Concept of Territorial Capital - European Competitiveness and Global Strategies", in *Advances in Spatial Sciences*, 2008 Springer-Verlag Berlin Heidelberg
7. Cappelen, A., Castellacci, F., Fagerberg, J., Verspagen, B., (2003), "The impact of EU regional support on growth and convergence in the European Union", *Journal of Common Market Studies*, 41
8. Ciccone, A., Hall, R., (1996). "Productivity and the density of economic activity", *American Economic Review* 86
9. Ciccone, A., Peri, G., (2006). "Identifying Human Capital Externalities: Theory with Applications", *Review of Economic Studies*, 73
10. Crescenzi R, Rodriguez-Pose, A. (2012), "An 'integrated' framework for the comparative analysis of the territorial innovation dynamics of developed and emerging countries", Working Paper in *Economic and Social Sciences*, 2012/02
11. Crescenzi R, Giua M (2014), "The EU Cohesion policy in context: regional growth and the influence of agricultural and rural development policies", *LEQS Paper No. 85/2014*
12. Dachin A (2008), "Rural development – a basic condition for narrowing regional disparities in Romania", *Romanian Journal of Regional Science*, vol. 2, no. 2

13. Dall'erba, S., Le Gallo, J. (2008), "Regional convergence and the impact of European structural funds 1989-1999: a spatial econometric analysis", *Papers in Regional Science*
14. Dall'erba, S., Guillaing R. and J. le Gallo (2007), „Impact of structural funds on regional growth: how to reconsider a 7 year-old black-box”, The University of Arizona, *Discussion Papers*, GRD 06-07
15. De Haan, J, Romp, W. (2007): „Public Capital and Economic Growth: A Critical Survey”, *Perspektiven der Wirtschaftspolitik*, Vol 8 (Special Issue)
16. Duhr S., C. Colomb, e. Nadin V. (2010), „European spatial planning and territorial cooperation”, in *Planning Practice and Research Journal*, Routledge
17. Duranton, G., (2007). "Human Capital Externalities in Cities: Identification and Policy Issues", in Arnott R.J. and McMillen D. P (Eds.), *A Companion to Urban Economics*, Blackwell Publishing Ltd, Oxford
18. Eiselt, I. (2006), *What is wrong with EU cohesion policy? Observations of an overall ambitious policy design*, EIF working paper, working paper 29, available at <https://eif.univie.ac.at/downloads/workingpapers/wp29.pdf>
19. Esposti, R., Bussoletti, S. (2008), „Impact of Objective 1 funds on regional growth convergence in the European Union: a panel-data approach”, *Regional Studies*, 42 (2)
20. European Commission (2014), *6th Report on economic, social and territorial Cohesion*, Brussels, available at http://ec.europa.eu/regional_policy/sources/docoffic/official/reports/cohesion6/6cr_en.pdf
21. European Commission (2014b), *Investment Support under Rural Development Policy, Final Report*, Contract 30-CE-0609852/00-41
22. European Commission (2015), <http://ec.europa.eu/esf/main.jsp?catId=574&langId=en>, <http://ec.europa.eu/esf/main.jsp?catId=443&langId=en>
23. European Spatial Planning Observation Network - ESPON (2004): *ESPON Project 2.1.3. The Territorial Impact of CAP and Rural Development Policy. Final Report*, August 2004
24. European Spatial Planning Observation Network -ESPON (2003), *The Territorial Impact of CAP and Rural Development Policy*, ESPON Project 2.1.3 coordinated by the Arkleton Centre for Rural Development Research, Brussels
25. Eurostat (2014), *statistical data*, available at <http://ec.europa.eu/eurostat/statistics-explained/index.php>
26. Fratesi U, Perruca G (2014), "Territorial Capital and the Effectiveness of Cohesion Policies: an Assessment for CEE Regions", *Investigaciones Regionales*, no. 29
27. Gagliardi L, Percoco M (2015), *The impact of European cohesion policy in urban and rural regions: a regression-discontinuity approach*,
28. Gennaioli, N., La Porta, R., Lopez-de-Silanes, F., Sheifer, A. (2013) „Human capital and regional development”. *Q. J. Econ.* 128 (1).

29. Glaeser, E., Kallal, H., Scheinkman, J., Shleifer, A. (1992), „Growth in cities”, *Journal of Political Economy* 100
30. Kalman J, Tiits M (2014), *Coordinated policies and cohesion policies: their relationship and impact on the Member States*, GRINCOH Working Papers, 7.04/2014, available at http://www.grincoh.eu/media/serie_7__institutional_convergence/grincoh_wp7.04_kalman_tiits.pdf
31. Krugman, P.R. (1991), „Increasing returns and economic geography”, in *Journal of Political Economy*, no. 99/1991
32. Lange, A., Piorr, A., Siebert, R., Zasada, I. (2013), „Spatial differentiation of farm diversification: how rural attractiveness and vicinity to cities determine farm house holds response to the CAP”, *Land Use Policy* no. 31/2013
33. Lucas, R. (1998), „On the Mechanics of Economic Development,” *Journal of Monetary Economics* no. 22
34. Martin R. and Tyler P. (2006), „Evaluating the impact of the structural funds on “Objective1” regions: an explanatory discussion”, *Regional Studies*, 40(2)
35. Mecheri N, Pelloni G (2003), *On the Role of Human Capital and Instruments of Assistance for Rural Entrepreneurship and Development: Evidence from a Case Study in Mountainous Italy*
36. Mohl P., Hagen T (2010), „Econometric Evaluation of EU Cohesion Policy – A Survey”, *ZEW Discussion Paper*, 09-052
37. Mohl, P., Hagen, T. (2010), “Do EU structural funds promote regional growth? New evidence from various panel data approaches”, *Regional Science and Urban Economics*, 40 (5)
38. Moretti, E., (2004), *Human capital externalities in cities*, in Henderson J. V. and Thisse J. F. (Eds.), *Handbook of Regional and Urban Economics*, Elsevier
39. Putnam, R. (1993), *Making Democracy Work: Civic Traditions in Modern Italy*, Princeton University Press, Princeton, NJ.
40. Reich, R. (1991), *Sustainable Farming and Rural Community Development*, University of Missouri, available at <http://web.missouri.edu/ikerdj/papers/ND-SFCD.html>
41. Rodríguez-Pose A, Fratesi U. (2004), “Between development and social policies: the impact of structural funds in “Objective1 regions””, *Regional Studies*, 38
42. Turpin N and Védrine L., (2010), “Fostering the potential endogenous development of European regions: a spatial dynamic panel data analysis of the Cohesion Policy on regional convergence over the period 1980-2005”, TEPP Working Paper, 2010-17
43. Vargas, S. (2010), “Rural development and bioenergy: an alternative approach”. In: Khwaja, Y. (Ed.), *The BEFS Analysis for Peru. Supporting the Policy Machinery in Peru*. Food and Agriculture Organisation (FAO), Rome

44. Zasada I, Reutter M, Piorr A, Lefebvre M, Gomez Y Paloma S (2015), "Between capital investments and capacity building—Development and application of a conceptual framework towards a place-based rural development policy", in *Land Use Policy* no. 46/2015, available at: www.elsevier.com/locate/landusepol
45. OECD (2006), "The New Rural Paradigm: Policies and Governance", OECD *Rural Policy Reviews*.
46. OECD (2007), *Innovative Rural Regions –The role of human capital and technology*, Conference Report
47. UNICEF (2014), *The cost of non-investing in education in Romania*, Final Report coordinated by Luminita Costache
48. National Institute for Statistics (2014, 2013), *Statistical Bullentins*, available at www.insee.ro
49. National Institute for Statistics (2015), *Statistical Bullentin 8/2015*
50. ***, Ministry of European Funds, www.fonduri-ue.ro, <http://www.fonduri-ue.ro/files/implementare-absorbtiie/Anexa.1-30.septembrie.2015.pdf>
51. ***, SOP HRD 2007-2013 and HC OP 2014 – 2020, available at www.fonduri.ue.ro.
52. ***, Ministry of Agriculture, NPRD 2007-2013 available at <http://www.madr.ro/pndr-2007-2013.html>, NDRP 2014-2020 available at <http://www.pndr.ro/>