

Regional Studies Association
Annual International Conference 2010
“Regional Responses and Global Shifts: Actors, Institutions and Organisations”
Pécs, Hungary 24th – 26th May

European integration and regional dimension of unbalances

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ABSTRACT

The economic effects of the enlargement process in the EU are mainly approached from two points of view concerning the consequences for EU former members on one side, and those for entrants on the other. The hypothesis that integration has to be considered for new comers as a “fast lane to prosperity” is assumed for granted.

Potential economic benefits can be broadly grouped in three main categories: opportunities linked to trade liberalization; increase in efficiency driven by competition, and increasing specialization together with delocalization processes.

Possibilities for less developed entrants to catch up seems linked to their capabilities to follow a path of transformation and specialization in production processes coupled by change in institutional and organizations’ assets and performance.

Following this premise, in the paper concepts above resumed will be discussed. The analysis will be centered specifically on highlighting critical elements in the integration process of Countries with different degree of development. In particular it will be discussed the possibility that change dynamics taking places inside some Countries (CEECs in particular), even if coherent with long term catching up strategies, could cause the widening of gaps internal to them. The approach that will be followed in the paper will emphasize the relevance of knowledge economy mechanisms which undoubtedly can support gap reduction but could as well emphasize the process of polarization.

Keywords: European regions; integration; knowledge

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1. Introduction.

European integration is considered by European Union members a route to growth through liberalization and cooperation. Potential economic benefits are grouped in three main categories: opportunities linked to trade liberalization; increase in efficiency driven by competition, and increasing specialization together with delocalization processes.

Around this theme, a large debate has flourished in recent times, spanning from arguments related generically to globalization to arguments focusing on economic integration processes, going through analyses of specific characteristics of the organization and functioning of today's economic and productive systems.

In addition, it is a stylized fact that economic growth is largely explained by technological change and innovative dynamics. Knowledge-based economy mechanisms constitute, nowadays, more than relevant factors of creative and innovative processes. Accordingly, in Europe, with the adhesion to the Lisbon Agenda, member States have committed themselves to make the Union "*the most dynamic and competitive knowledge-based economy in the world*".

Together with that, the significance of space in growth processes couples with the relevance of processes of knowledge creation, accumulation, recombination and flows. As a matter of fact, all forms of knowledge have a significant tacit aspect, highly complementary to codified information, which increases the embeddedness in people, organizations, places and the stickiness effect in the transmission.

In this perspective, economic integration could, therefore, either support gaps reduction or emphasize paths of accumulation which could lead to increasing disparities.

This "dilemma" has been approached by a rich bulk of scholars but, in our view, still suffers from the lack of coordination between the various spheres of analysis. Furthermore, the frequent use of an old fashioned "traditional" scale of evaluation of advantages and disadvantages, which does not take in examination some important factors for the actual economic processes in the highly heterogeneous areas of the world (immaterial resources, diffused development, among others), contributes to reduce the possibility of extension of some interesting approaches. Such an interpretative fault often drives the debate towards arguments founded on sociological perspectives that undoubtedly enrich the debate but, at the same time, weaken the economic foundations of the matter.

In this paper, based on the above premises, it is discussed the possibility that the Europeanization of backward regions of the European continent might lead to widening the economic distance with the other regions in the Union and might also cause drain of crucial resources for growth and development from such regions.

To explore this subject, firstly, it will be outlined a overview of the principal factors explaining the connection between competitiveness and growth in knowledge-based economies (paragraph 2). Afterwards, in paragraph 3, the meso-economic perspective will be focused enlightening the influence of spatial distribution of knowledge and growth. The economic performance characteristics of enlarged Europe's Countries will then be synthesised, focusing, in particular, on the availability of some specific resources across European regions (paragraphs 4 and 5). The final section of the paper (paragraphs 6 and 7)

will deal with the discussion of some fundamental issues regarding knowledge, considered as an input and output, and some related aspects which appear to be crucial for growth in a regional perspective. Final remarks are drawn on the role that institutions could play in a context of globalization to support balanced growth.

2. Competitiveness and growth in knowledge-based economies: from the micro to the meso perspective.

In globalized economies, competitiveness of individual micro economic actors may coexist with the location in underdeveloped areas (this is especially the case when firm's competitiveness is pursued through the exploitation of low cost resources). As a matter of fact, the access to international resources and the dynamic of learning processes are crucial for firm performance in addition to canonical factors for competitiveness.

Knowledge at firm level results, then, determinant for increasing active participation to local, national, international networks where knowledge constitutes both an input (embodied in people and routines) and an output (embodied in new product and processes) of production². Furthermore, competences and capabilities³ positively impact on firms' performances. In this sense the presence of highly qualified personnel contributes to build firm's competence which, through the ongoing of learning processes, may become a source of its technological capabilities. More specifically, technological capabilities at the micro level are the knowledge and skills that firms needs to acquire, use, adapt to improve and create technology (Bell and Pavitt, 1993; Lall, 1993).

Such perspective is useful to enlarge the spectrum of factors to be considered influent in the pursue of competitiveness through the efficiency of production processes; the distinction between process organization and production-centered firms' capabilities is then more significant. Relevant knowledge is, hence, not limited to few high-technology or knowledge-based sectors; all sectors' innovative or knowledge-based activities are, indeed, outstanding phenomena.

The centrality of learning process "deflates" in some way the relevance of distinction between high-tech and low-tech sectors and between innovative and non-innovative firms. This difference appears to be outstanding, indeed, with regard to the modes of learning process whereas, especially when in not highly competitive contexts, central is the firms' capability to be "progressive".

As a consequence, the analysis of firms behaviours has to be flexible so as to enlighten firm-embedded pieces of which enhance firms' ability to move towards patterns

² Knowledge favours competence that is a 'strategic asset' for firm's competitiveness (Cooke, 2002).

³ A fertile analysis of the distinction between competences and capabilities has been developed by von Tunzelmann and Wang, especially with regard to innovation (for further details, see von Tunzelmann and Wang, 2003).

of competitiveness (through efficient reactions to external impulses and effective use of internal drivers towards performance improvements).

Nevertheless, comparisons of microeconomic subjects centred on individual competitiveness - which is generally measured through homogenous yardsticks – are likely to divert the focus from the socio-economic side of meso-level context, often characterized by unhomogeneity and unbalances.

At a meso level, the dimension of regional competence, as the result of knowledge embodied in the labour forces, reflects arguments put forward by the competence approach to the firm (firm as repository of skill, experience and knowledge rather than merely a set of responses to information or transaction costs). In an aggregate dimension, the resultant knowledge is greater than the sum of the individual knowledge possessed by individuals, when they are coordinated. As a matter of fact, although firms are the main actors involved in the process of building regional capabilities, other agents interact at the meso-level within specific socio-economic and institutional frameworks.

Capabilities are influenced, at regional level, by the relationships between local and non local firms and among other public and private organizations. As emphasized in many studies, the nature and mode of interactions among this actors is crucial in influencing the meso-level regional performance and competitiveness. Flows of knowledge among the various actors require existence of internal resources, together with the presence of a basin of meso-level assets which may also intervene in facilitating the acquisition of other resources from outside.

Emerging differences across regions in innovation and diffusion of technology could, in turn, contribute to explain differences in GDP per capita and unemployment rate.

3. Spatial distribution of knowledge and growth.

As introduced in previous paragraph, the presence of knowledge resources plays a fundamental role in processes of change. As a matter of fact, along with basic factors of production (physical resources, capital and labour), regions' endowments are determined by elements as knowledge-related factors (highly educated personnel and university research are some examples) and infrastructures.

Regional competitiveness and force of attraction, therefore, is strongly influenced by the functioning of a system of capabilities which allows the coordination between those assets and supports further knowledge-based processes.

As strongly evidenced by evolutive approach, the development of specialized skills depends from accumulated experience. The variety of experiences and skills localized in a region could, then, be determinant for growth when they are encompassed within a network of connections. In particular, in a historical period of industrial transformation, the accumulation of capabilities involves both individuals and organizations. Capabilities derive from human capital, inasmuch as they are based on education and formally acquired skills, but also from the knowledge embodied in organizations which have to face dynamic problem-solving situations (Cimoli et al., 2009).

In a regional context “human creativity” is influenced by groups of factors which include high levels of competence, diversity of knowledge fields, opportunities for communication (internal and external), together with the perception of unsatisfied needs and a structural instability which triggers development. *“At a less abstract level, knowledge includes the skills of workers, the experience of managers and owners and the “pulse” of customers’ needs and demands.”* (Andersson, 1985).

The presence of highly qualified people is, then, considerably important at a regional level (as well as at macro levels), wherever, as in EU growth strategies, science and technology are indicated as crucial for development.

In this perspective, the strength of an economic system is strictly related to the degree to which knowledge is created, used and shared.

The connection between types of knowledge and their localization has primarily to be analysed in the light of largely debated contraposition between tacit and codified knowledge and considering the industrial knowledge bases, whose geography is associated to the characteristics of the industry and technology of an area (Asheim and Gertler, 2005).

Difference in knowledge contents influences as well the modes and channels of transmission and their spatial characteristics. In this perspective, codified knowledge can be almost ubiquitous through transfer and replication of it; while tacit knowledge, generally embodied in people, is individually held and often based on a long time experience. Moreover, channels of transmission might themselves affect the efficiency of the process. The evidence about the fundamental role of mode and channels of transmission puts high weight on institutions’ role and policy intervention aimed at facilitating actors’ choices and behaviours.

The social capital of a region could constitute a base on which local firms could draw upon and build their competitiveness; it needs, nonetheless, to be complemented by vertical links with other regions. In a globalised context, competition could be pursued promoting connections with other places as a way of creating, attracting and keeping economic activity. Flows and linkages to the outside need, however, to be balanced to allow receptivity of new external stimuli.

Indeed, local-global connections are paths to success when they enhance new combinations of local traditions and global trends⁴. Absorptive capabilities (Cohen and Levinthal, 1990) are a requisite for such interactions and they determine the way in which past achievements in accumulating knowledge will influence learning potentials. As showed from many parts, this appears to be self-evident with reference to successful global-local connections, almost always based on actual local economic structure. The previous argument assumption might involve, as reverse effect, the hampering of poor regions’ growth by an unfavourable production structure. Opportunities for growth may derive from joining existing economic activities in an area, upgrading traditional industries or even making use of old industrial knowledge for novel purposes.

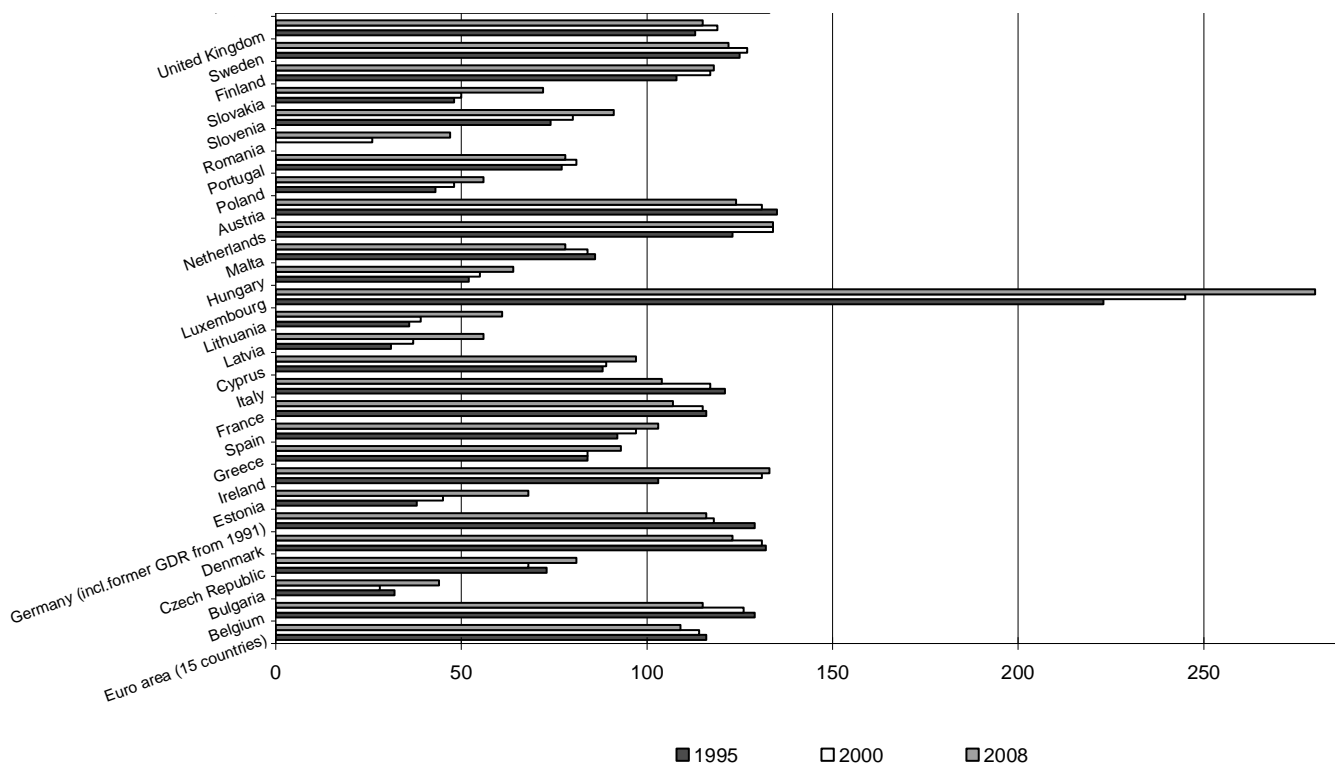
⁴ New combinations of existing pieces of knowledge are, indeed, considered as a root of innovation by Schumpeter and following scholars (Lundvall, 1992).

4. Europe: a multi-faced economic physiognomy.

The European Union economic physiognomy has a general appearance of an advanced industrialized portion of the international panorama. Such a first evidence is, however, the synthesis of a variegated picture whose elements are particularly significant in periods of time when ongoing transformation phases involve European economy.

First of all, a persistent unhomogeneity in the economic and welfare conditions of European Countries, especially when considering the enlarged European Union, is primarily evidenced by levels of GDP per capita for each European Country. The representation of GDP per capita in Purchasing Power Standards (PPS based on the EU-27 standard) shows, in particular, that peripheral European Countries, like Portugal and Greece and recently accessed Countries, have PPS levels lower than other member States; this gap persists over time in spite of a general trend in recently accessed Countries to increase in GDP per capita with respect to pre-accession period (fig.1).

Fig.1 - GDP per capita in Purchasing Power Standards (PPS)
(EU-27 = 100)



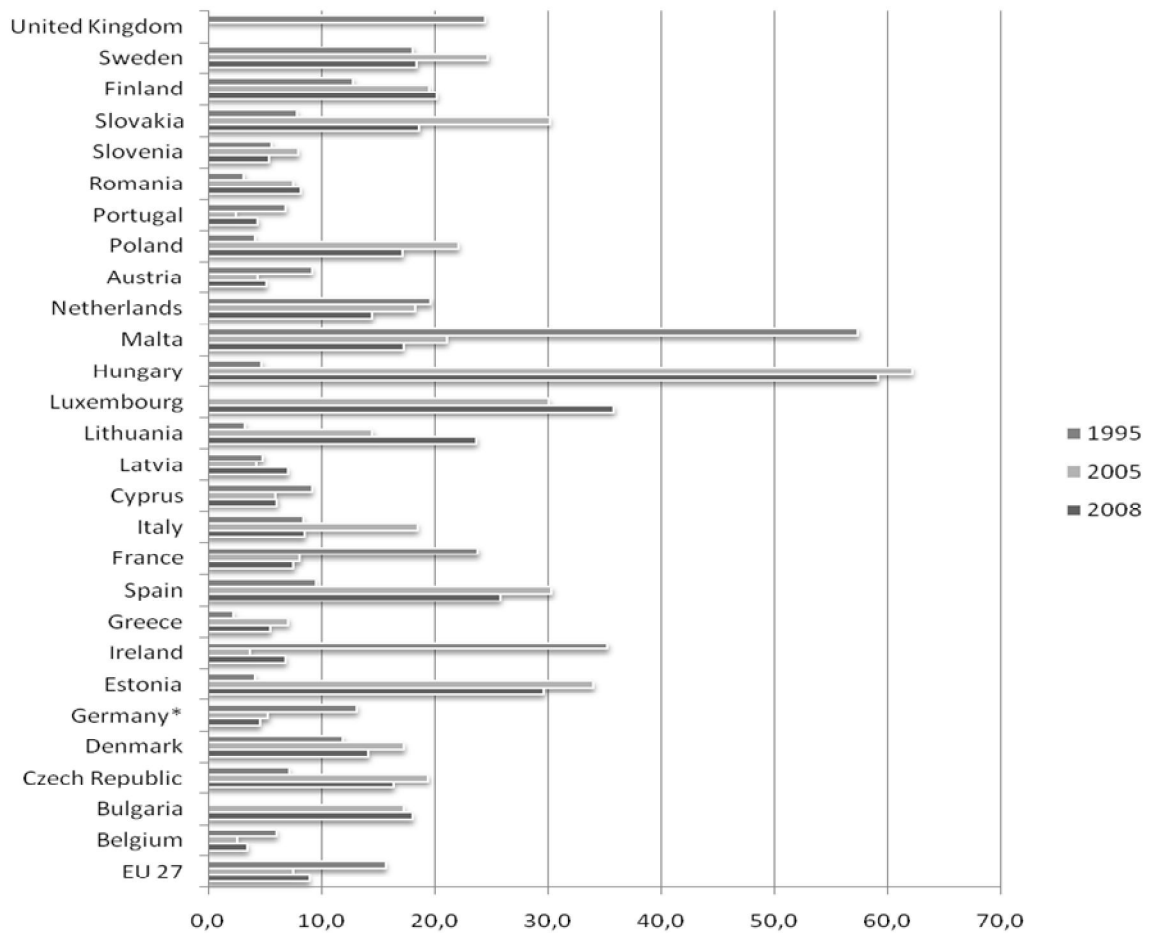
Source: Eurostat

Economic trends of European 27 Nations reflect their economic characteristics and history and come out as the result of specific patterns of production and specialization.

As argued in paragraph 3, competences and learning capabilities act as fuel for engines of specialization and innovation; by this way, then, they could enhance economic growth. Specialization in specific productive sectors and specific technologies, furthermore, promotes learning opportunities; moreover, it influences income elasticity of demand. As a matter of fact, patterns of specialization result to be fundamental in influencing productivity growth, innovation opportunities and demand potential.

Insofar as exports constitute a proxy of Countries' competitiveness, exports of high-tech products directed to non-European Countries evidence the specialization in sectors representing "on-the-frontier" high-value-added, highly-skilled activities.

Fig. 2 – High-tech Export extra-EU27 (% of total exports)



The indicator is calculated as share of exports of all high technology products on total exports. High Technology products are defined as the sum of the following products: Aerospace, Computers-office machines, Electronics-telecommunications, Pharmacy, Scientific instruments, Electrical machinery, Chemistry, Non-electrical machinery, Armament. The total exports for the EU do not include the intra-EU trade.

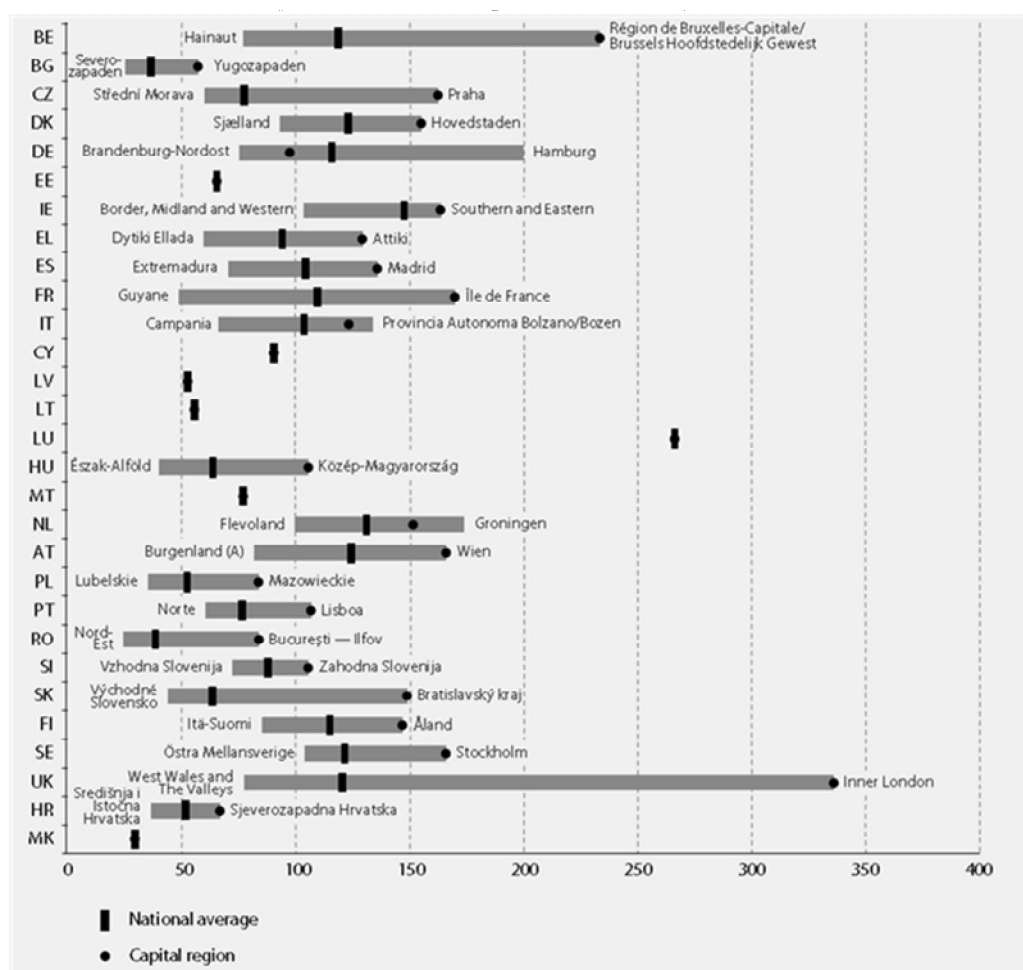
Source: Eurostat

In this sense, the trends of high-tech exports towards non-European markets in three different years (1995, 2005, 2008) - figure 2 - testify major changes in specialization of Countries which have experienced the widening of their final markets (newly entrants in the European Union). In particular, while the average incidence of hi-tech exports for the EU27 has decreased over the period considered, individual countries have showed different trends reflecting the change in their productive structure and organization.

National aggregate data are, as stated, a synthesis of inhomogeneous situations within individual Countries where, generally, economic and welfare conditions differ at regional level. In most of the Countries, national GDP per capita combines dispersed values attained by nations' regions where, usually, peripheral regions perform worse than others and capital cities' regions are the richest ones.

This situation can be illustrated through representation in figure 3.

Fig.3 – GDP per inhabitant in PPS by NUTS 2 regions (2006)
(% of EU-27 average: EU-27 = 100)



Source: Eurostat Regional Yearbook 2009

Distribution of GDP per inhabitant by NUTS2 regions, as reported in figure 3, illustrates the existence of internal unbalances in every EU Country.

Even if the investigation reported refers to 2006, it makes sense to believe that such situation is confirmed in time.

A similar pattern emerges with reference to labour market. As a matter of fact, unemployment rate is different among Nations but unemployment is not at all homogenous within Countries and among regions. As synthesized in table 1, in fact, levels of unemployment inside EU Countries are various but, even in presence of cyclical macroeconomic phenomena, relative positions in the ranking and inter-regional gaps tend to persist over time.

Tab. 1 - Unemployment rate by NUTS 2 regions (%):
Maximum and minimum regions' values for single Countries

Countries (Unemployment %: max and min rate in NUTS2 regions)		2000	2005	2008
Belgium	Max	13.9 (BE10)	16.3 (BE10)	15.9 (BE10)
	Min	3.6 (BE24;BE25)	4.4 (BE24)	2.7 (BE25)
Bulgaria	Max	n.a.	12.6 (BG32)	8.6 (BG33)
	Min	n.a.	7.6 (BG41)	2.9 (BG41)
Czech Republic	Max	14.5 (CZ08)	13.9 (CZ08)	7.8 (CZ04)
	Min	4.2 (CZ01)	3.5 (CZ01)	1.9 (CZ01)
Denmark	Max	n.a.	n.a.	3.6 (DK01)
	Min	n.a.	n.a.	3.1 (DK04)
Estonia		13.6	7.9	5.5
Ireland	Max	5,5 (IE01)	4,4 (IE01)	7 (IE01)
	Min	4 (IE02)	4.3 (IE02)	5.7 (IE02)
Germany	Max	16.4 (DE80)	21.3 (DE80)	15.1 (DE30)
	Min	3 (DE21)	5.8 (DE21)	3.3 (DE21)
Greece	Max	15.1 (GR13)	18 (GR13)	12.5 (GR13)
	Min	7.4 (GR41;GR43)	7.1 (GR43)	4.5 (GR41)
Spain	Max	24.7 (ES63)	19.7 (ES63)	20.7 (ES64)
	Min	5.6 (ES22)	5.6 (ES22)	6.7 (ES22)
France*	Max	16.7 (FR30)	13.2 (FR30)	11.4 (FR30)
	Min	6.5 (FR42)	6.4 (FR63)	5.6 (FR24;FR52)
Italy	Max	26 (ITF6)	16.2 (ITG1)	13.8 (ITG1)
	Min	3.7 (ITD3)	3.2 (ITC2)	3.2 (ITD5)
Cyprus		5.0	5.3	3.7
Latvia		14.2	8.9	7.5
Lithuania		15.9	8.3	5.8
Luxembourg		2.3	4.5	5.1
Hungary	Max	10.2 (HU31)	10.6 (HU31)	13.4 (HU31)
	Min	4.2 (HU22)	5.1 (HU10)	4.9 (HU22)
Malta		6.3	7.3	6
Netherlands	Max	4.5 (NL11)	6.6 (NL11; NL23)	3.6 (NL13)
	Min	2.4 (NL41)	3.3 (NL34)	2.1 (NL31)
Austria	Max	5.8 (AT31)	9.1 (AT31)	6.7 (AT31)
	Min	2.3 (AT32)	3.2 (AT32)	2.4 (AT33)
Poland	Max	23.6 (PL62)	22.8 (PL51)	9.5 (PL42)
	Min	11.7 (PL21)	14.4 (PL34)	5.5 (PL63)
Portugal	Max	5.5 (PT18)	9.1 (PT18)	9 (PT18)
	Min	2.2 (PT16)	4.1 (PT20)	5.4 (PT16;PT20)
Romania	Max	8.7 (RO22)	9.2 (RO31)	6.8 (RO31)
	Min	5.6 (RO41)	5.9 (RO11)	3.4 (RO32)
Slovenia	Max	n.a.	7.6 (SL01)	5.2 (SL01)
	Min	n.a.	5.2 (SL02)	3.4 (SL02)
Slovakia	Max	24.0 (SK04)	23.1 (SK04)	13.2 (SK04)
	Min	7.3 (SK01)	5.3 (SK01)	3.4 (SK01)
Finland	Max	14.1 (FI13)	11.7 (FI13)	9 (FI13)
	Min	0.8 (FI20)	3.6 (FI20)	2.2 (FI20)
Sweden	Max	7.6 (SE32)	8.7 (SE31;SE33)	7.4 (SE22)
	Min	3.2 (SE11)	5.9 (SE21)	5 (SE21)
United Kingdom	Max	9.4 (UKI1)	7.8 (UKI1)	9.4 (UKG3)
	Min	2.4 (UKJ1)	2.6 (UKG1)	2.8 (UKE2)

* France's overseas regions are not included.

Some countries have only 1 NUTS2 region, single years data are reported.

Source: our elaboration of Eurostat data

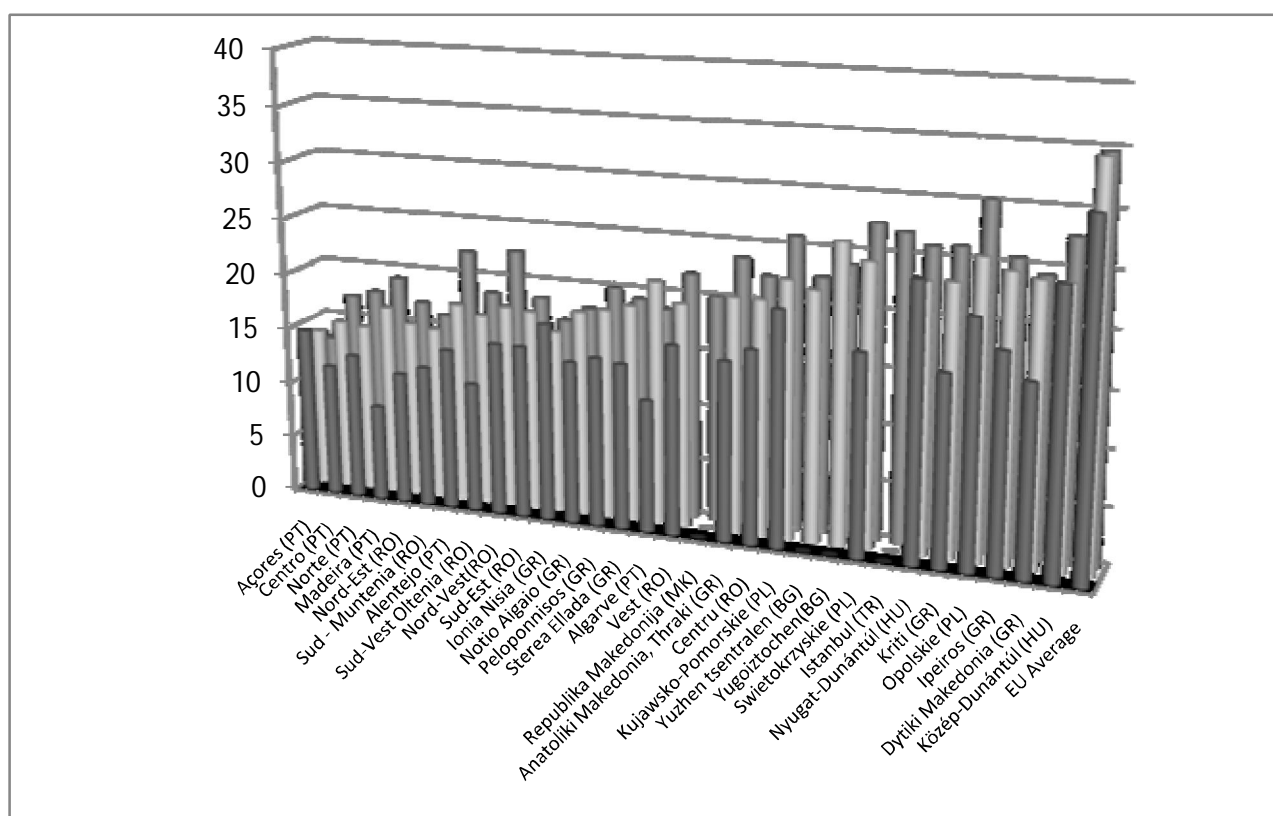
5. Knowledge resources across Europe

Following the path of analysis outlined above, along with the localization of productive activities, fundamental appears the geography of immaterial resources.

In the absence of detailed complete regional data capturing this component of territorial endowment, its consistency could be captured through information on highly skilled labour, whose presence is a proxy of high potential embedded knowledge. Data on human resources in science and technology (HRST), in particular, are a proxy of both supply and demand for highly qualified science and technology specialists.

In figure 4 is represented the incidence of HRST employment in the thirty European regions where their presence is at the minimum.

Fig.4 – HRST labour force participation (% of active population) *.
Lowest 30 EU regions.



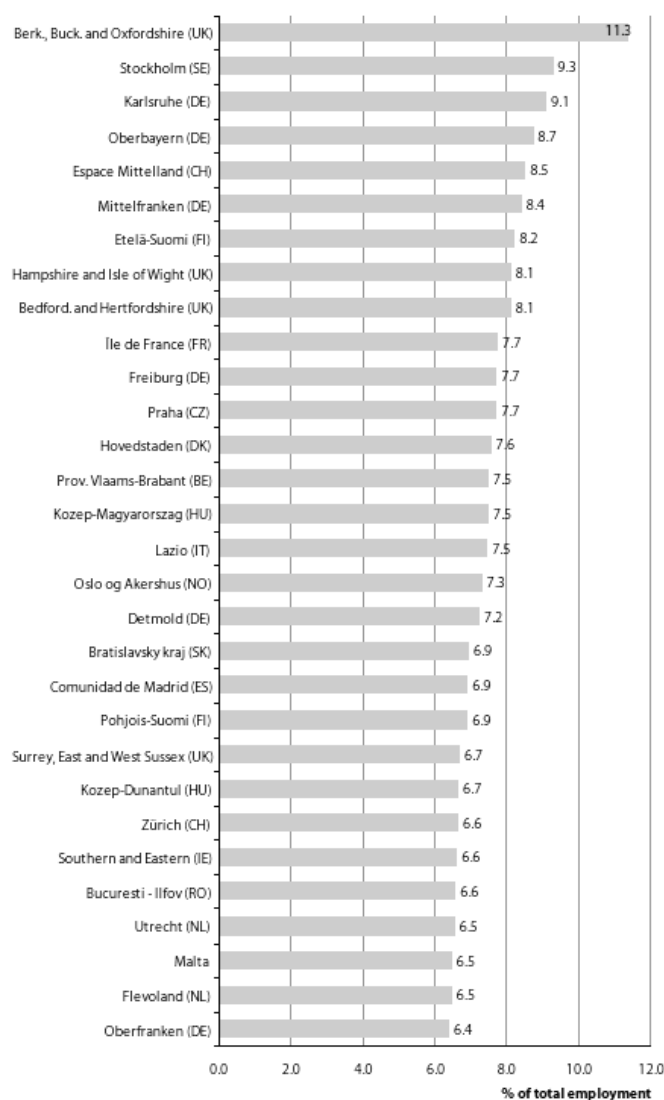
*Percentages measure the share of HRST with respect to the economically active population. Labour force classified as HRST corresponds to those having successfully completed education at the third level or are employed in an occupation where such an education is normally required.

Source: Eurostat

The data appear to reflect in the first instance the productive structure of regions which are dominated by low-technology production sectors. With few exceptions, the data, plotted for three different years, evidence a general persistency in low levels of participation of HRST labour force in the thirty regions. These regions (the 30 at the bottom of such a classification) are among the backward areas of the European Union.

Symmetrically, in 2008, regions with highest incidence of high-technology sectors (in terms of employees) are in the developed areas of the Union and in some regions which constitute the more performing inside less developed Countries (figure 5, compared with figure 2).

Fig.5 - Employment in high-technology sectors as a percentage of total employment: Top 30 European regions (2008)

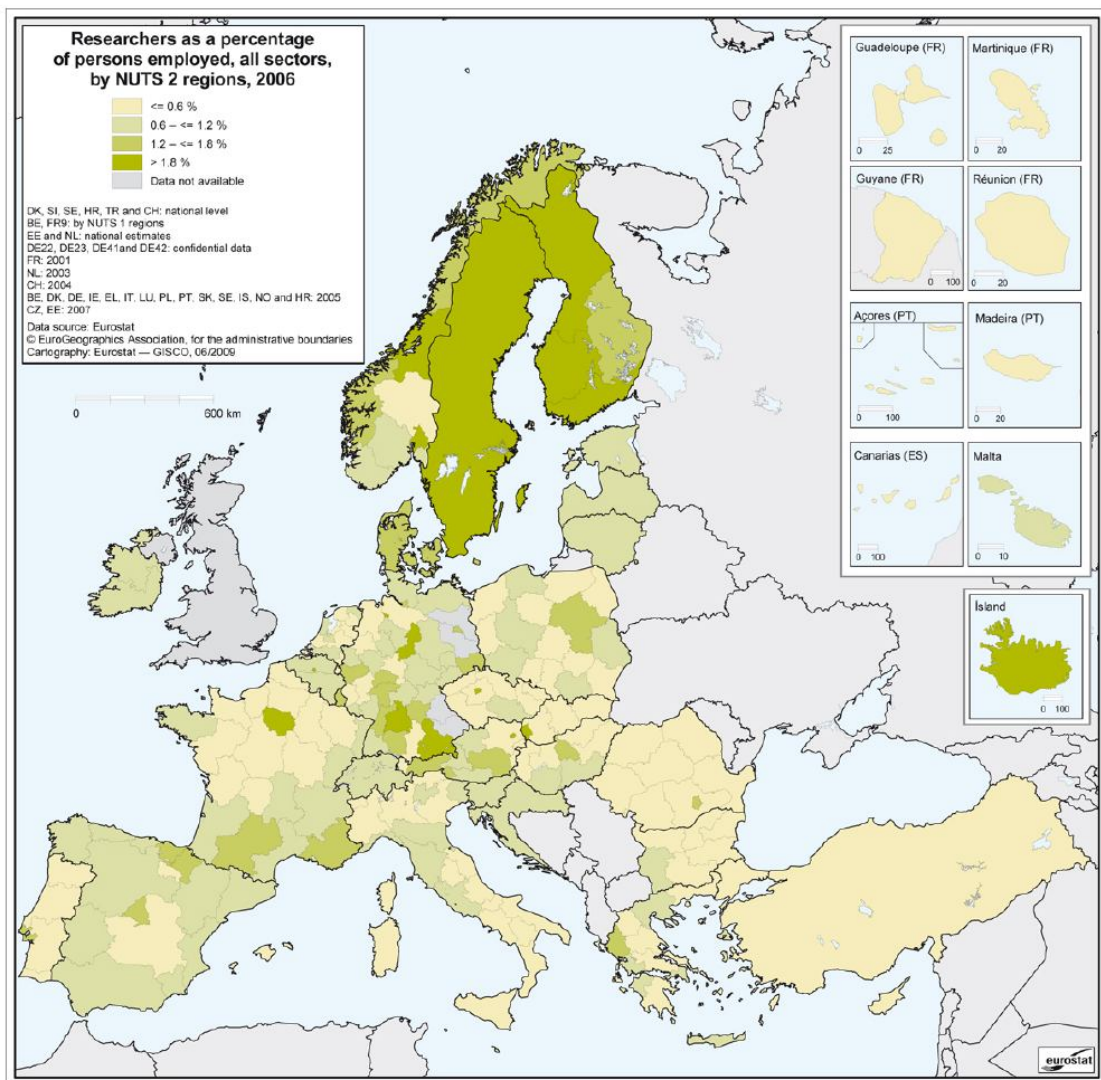


Source: Eurostat

Last, but not least, information about R&D intensity and employed researchers is conducive to depict the geography of the use of knowledge-related resources within European regions.

Considering R&D personnel (whose number is an immediate measure of availability and allocation of resources directed to R&D activities), the percentage of researchers on employment reflects the concentration of R&D activities in some limited regions and confirms the low presence of such highly skilled human resources in backward regions (fig.6).

Fig.6 – Researchers as a percentage of total employment (2006)



Source: Eurostat

Regions with a lower R&D intensity are found mainly in the Southern and Eastern parts of the European Union. In some of these areas, however, R&D intensity registered fast growth.

6. Access to knowledge and development perspectives.

As discussed in paragraph 2 and 3, spatial elements play a crucial role in processes of creation of knowledge as well as in their evolution, as tested by looking at evidence in EU regions.

Analytical follow-ups of New Economic Geography enlighten the possibility that positive externalities due to agglomeration effects could drive centripetal mobility in case of trade integration and liberalization. This possibility implies crucial pitfalls for peripheral regions, especially with reference to high value added productions, usually more knowledge and technology intensive.

Some other additional factors need, then, to be taken into account when analyzing development prospects of latecomer and lagging-behind regions, as it is the case in many peripheral areas of the European Union.

In this perspective, at a regional level in particular, accessibility, receptivity and connectivity constitute key factors characterizing regional space that strongly influence its growth processes (Rutten and Boekema, 2007; Cappellin, 2009). The three categories reflect and synthesize the relevance of phenomena resulting from the presence of synergies at the firm level, so as within the interactions among actors. In some sense they constitute, in our view, territories' assets and attitudes at the same time.

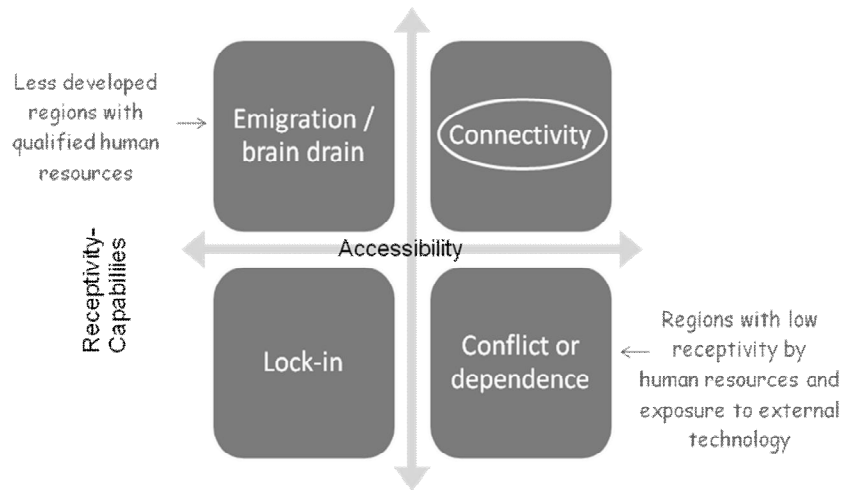
Accessibility depends on geographical distance but varies also with the existence of obstacles that may increase the transaction costs between firms or regions. Receptivity depends, on the other hand, from the internal capabilities of the firms and of the regions, which are related to the level of education, previous accumulated experience and to the availability of specialized know-how. Connectivity consists in a positive combination of both a high accessibility to different knowledge sources and an adequate receptivity.

Even if more strictly related to conditions for innovation, co-presence or availability at various degrees of the three factors specified above is determinant for the economic and social evolution of an area. In particular:

"A positive combination of accessibility and receptivity is a prerequisite to achieving economic integration and synergy between firms and regions. And the lack of both accessibility and receptivity leads to a situation of closure and stagnation, which may be defined as a "lock-in" effect" (Cappellin, 2009, p.80).

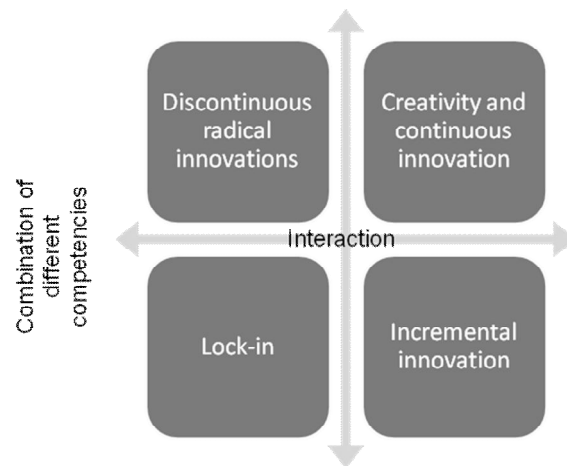
Different regional development scenarios could, then, be the outcome of different combinations between various regional characteristics as represented in the schemes depicted in following tables (tables 2 to 4).

Tab. 2 – Accessibility and receptivity: four scenarios



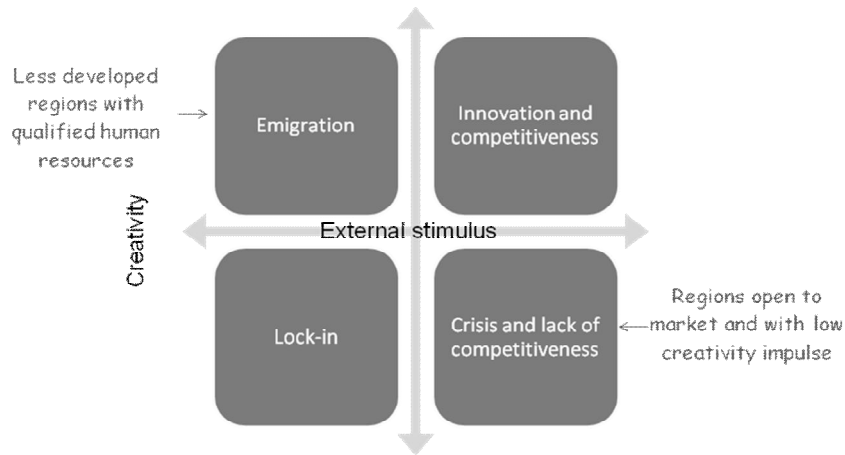
Adapted from Cappellin (2009)

Tab.3 – Competencies and interaction: four scenarios



Adapted from Cappellin (2009)

Tab.4 – Creativity and external stimulus: four scenarios



Adapted from Cappellin (2009)

The three schemes pinpoint the possibility that low levels in any of the key “assets-attitudes” related to accessibility, receptivity and connectivity may drive to specific situations, alternative to best scenarios (which are represented in the upper right square of each combination). As annotated in previous figures, some combinations, in particular, correspond to what usually characterize less developed contexts.

The analysis of distribution of resources among regions, as well as of their combination and interactions through processes as the outlined ones, allows then to enlighten ways to support and encourage potentials but it also envisages risks connected with mobility of resources. In this sense, the approach proposed above raises research questions worth to be considered along with the specific analysis of spatial distribution and mobility of resources, prevalent in most of the literature. A wider research analysis would, in this sense, allow an enrichment of traditional debate, which is generally focused on arguments pro and con integration and globalization and usually ends up in identifying convergence and divergence as the main alternatives in growth scenarios.

In particular, in the case of lagging regions, the relatively lower absorption capacity towards investment in addition to budget constraints, suggest the perspective (already disclosed in many cases) of a concentration of growth in capital centres and urban areas with comparably higher development potential. This reflects the assumption that internal returns of investment (and subsidies) are higher in the more progressing and better endowed regions (in terms of infrastructure, institutional capacity, agglomeration and human resources).

Inside Europe, such issues assume specific relevance with regard to CEECs. Although some CEEC Countries have been surprisingly successful in adjusting trade patterns and orientation (Hungary, Czech Republic and Slovenia), the socialist heritage has

created specific preconditions for regional development policy, considerably different from those of other EU Countries. The sudden exposure to competitive markets, the resulting enormous redundancy of labour and the lack of qualified personnel and of regional institutions entailed a rapid slump in the regional levels of income and of social welfare.

CEECs have to face, then, both a collapsed industrial production potential and the existence of large backward areas. Former regional development strengths (i.e. the areas with old industrial production facilities) more or less vanished, and weaknesses (e.g. interregional disparities) increased. Three different contexts can be identified, in particular, in the CEEC area: (1) old industrial zones, (2) backward regions and (3) regions with development strengths and potential (Hallet, 1997). Development potentials can be found in the formerly strong industrial regions (since there is still a higher level of technical infrastructure and human resources) and in regions with a good access to western markets (these are the western regions and mostly the capital regions). Existing strengths (growth poles) are mostly around the capitals or in cities with higher incoming FDI. Here is concentrated the export-oriented production (fuelling intra-industry trade with the EU). A great part of newly accessed Central and Eastern European Countries, however, are backward and poorly endowed with endogenous potentials.

For the CEECs, then, the trade-off between regional equity and growth is still considerable.

"...Confronted with high needs and scarce means, poorer Countries often have a preference for promoting national development and creating good conditions for private investment by a concentration of public investment on a few growth poles rather than spreading a low level assistance all over the country and in this way losing relative attractiveness for private investment in the whole country..." (Hallet, 1997, p.19)

The analysis of CEEC regions development scenarios, in the light of what has been pointed out above, allows to capture the essence of the dilemma about various policies for integration in these areas. As a matter of fact, where the resource endowment remains scarce or resources are obsolete and the accumulation of immaterial factors, such as knowledge, competences, etc..., is not promoted, external stimuli will not have any lasting effect on growth. Moreover, as emphasized in the previous interpretative schemes, the possibility of lock-in effect or emigration flows becomes a realistic prospect.

7. Institutions and policy roles

Several different shared spaces are, actually, involved in knowledge creation; some are internal to firms, some others are external; some can be local, others rely on organizational proximity more than on spatial proximity. In this sense, time, space and infrastructures are needed for seeking, generating and exchanging material and immaterial goods. Geographic and organizational proximity would both act as catalysts of these processes.

The governance of knowledge-based processes asks for the intervention of institutions in order to protect equity and balanced growth.

The importance of institutions and policies is especially connected to the phases of generation, adoption and economic exploitation of knowledge, depending from the intrinsic properties of information (i.e. use of non-rival, non excludable information and generation of information is subject to sunk costs etc.). In this sense:

"...The paramount importance of institutions and social norms appears to be a rather universal propriety of every form of collective organization we are aware of. Moreover, much more narrowly, discretionary public policies have been major ingredients of national development strategies, especially in catching up Countries, throughout the history of modern capitalism [...], from a symmetric perspective, there are extremely sound theoretical reasons supporting the notion that institutions and policies always matter in all processes of technological learning and economic coordination and change" (Cimoli, Dosi, Nelson and Stiglitz, 2009, p. 19).

Moreover, public policies partially influence the extent to which the economic and technological performances are the result of automatic processes linked to market mechanisms and how much they are influenced by social capabilities.

In ideal settings, firms are supported by strong local institutions, along with a wide range of social services (Cooke and Morgan, 1998). At a macro level, developing Countries, which traditionally lack indigenous capabilities to generate new technologies, commonly rely on diverse mechanisms of international technology transfer. Absorptive capabilities and endogenous competences are then key success factors in these contexts.

At a regional level, the general perspective assumes a specific dimension inasmuch as *"...At meso-level the generation of human resources is an output of certain kinds of regional institutions; the extent of human resource formation thus becomes endogenized and represents a regional capability"* (Iammarino, Padilla-Pérez and Von Tunzelmann, 2008).

As above mentioned, in lagging areas, traditionally, indigenous capabilities are low or even absent. Generally, the growth of less developed areas, namely the poorest regions, is also hampered by an unfavourable industrial structure (Fagerberg, 1997).

In some cases (Epifanio, 2007), less developed regions are, on the other hand, characterized by inefficiency in the system of interactions and coordination; this determines lock-in phenomena, even in presence of positive endogenous resources.

Comprehension of the connection between knowledge, competence, learning, creativity and their roles in creating and sustaining regional development is fundamental, then, to investigate paths of regional growth. In fact:

"It is the region's distinct institutional endowments that embeds knowledge and allows for knowledge creation which – through interaction with available physical and human resources- constitutes its capabilities and enhance or abates the competitiveness of the firms in the region" (Maskell, Malmberg, 1999, p.181).

Approaches based on evolutionary patterns of change emphasise, in particular, the relevance of the existence and functioning of a “system” which include actors linked through interactions which are highly spatially-rooted. It can be said that:

“The associational model is a ‘third way’, between state-led and market-led development, demanding a more collaborative mode of operation in the form of network relationships. Social and economic success, then, seems to be based to a considerable degree on regional capability in place-specific relationships of trust and learning as well as on regional network competence” (Malecki and Hospers, 2007, p.146)

The absence of own R&D capabilities and human competences represents for many regions a further obstacle to take advantage of the more advanced technologies available elsewhere.

Encouraging R&D in backward regions is not simply a matter of subsidizing these activities. R&D is typically an activity that can only be undertaken in the context of an adequate infrastructure, i.e. when sufficient high quality labour and supporting institutions such as higher education institutions are available. Policies aimed at R&D, thus, have an essential long-run and structural character, both in terms of implementation and effect.

Controversial is also the hypothesis that wages and migration policies could alleviate regional inequalities. Furthermore, such policies could hardly be coherent with the aim of creating a common EU labour market.

In the light of what pointed out above, lagging regions in the European Union risk to fall behind in the path towards Europe growth process. Moreover, in cases where the level of market integration is largely insufficient (Romania, Bulgaria etc.), the attempts to channel regional subsidies to poorer regions would be viewed most probably as a cause of a slackening of success in the integration process. On the other hand, in more advanced Central and Eastern European Countries, like the Czech Republic or Hungary, a regional policy aiming at reducing internal economic gaps might impact in jeopardising the achieved level of economic integration insofar as the marginal opportunity costs of spatial equalisation increase with the progress in development. The absorptive capacity of rural and remote regions is low and the fundamental preconditions for emerging intra-industry trade within the European market are still insufficient. These aspects, then, strongly undermine the possibilities of success in Europeanization of many newly accessed European regions.

Policy choices need, then, to be set according a shared list of priorities within individual Countries.

8. Conclusions

In this paper, some themes raised within different streams of economic literature have been merged with the aim of proposing a critical approach to the ongoing race for “Europeanization” promoted by international (European Union), national and regional organizations.

It has been proposed here, therefore, an interpretative outline, comprehensive of issues relative to economic integration in a knowledge-based era, in order to propose the enlargement of the debate which actually appears to be dominated by the tendency to understate regional unbalances in European process of Unionization.

The European regions are indeed characterised by large differences in terms of sectoral specialization, productivity levels, labour resources and growth; these differences appear to play a crucial role in influencing the growth rate of the regional economies.

The available data to build and test a solid interpretative model of the themes overviewed in this paper are very few and often they hardly can be used in long time series or for consistent comparisons. In addition, availability and quality of data from the CEECs is still insufficient to have definitive evidence of actual trend in these Countries and, foremost, in their internal regions. Even if some case-studies enlighten the existence of potentialities inside marginal regions of the European Union, they do not actually constitute in our view a corpus sufficient to draw a general interpretative model of balanced regional growth.

However, the few evidences synthesised here and reported in the literature seem to justify, in our view, serious concerns about the success of what would be intended as a knowledge-centered development agenda.

In this sense, it is important to enlighten new policy strategies that, even if aiming at macroeconomic growth and integration, do not underestimate the existence of inequalities within Countries and the risk of their widening that might constitute seeds of persistent sperequation in the wider European convivium.

In particular, some relevant issues are, in our view, those stressed with reference to the crucial importance of distributed endowment of immaterial resources and the possibility that they could increase and generate within-countries homogeneous growth processes. The transformation process should, therefore, entail a major process of accumulation of knowledge and capabilities, at the level of both individual and organizations. Accessibility, connectivity and receptivity, hence, specifically appear to be key elements for virtuous dynamics that will be exempt from centrifugal forces resulting in further drain of resources from lagging regions.

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