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Territorial scenarios and long-term visions for Central and Eastern Europe¹

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Path-dependent development trajectories of Central and Eastern European catching up processes

According to our Baseline scenario the Eastern European countries will hardly be able to sustain the strategy of growth and the convergence process of the 2000s, when many industries were attracted. While large cities and capitals may have agglomeration economies, rural areas will tend to be depopulated. Migrations from East to West will continue. Social welfare may grow slowly, and the gap with Northern and Central regions may also grow. This scenario is also dependent to a large extent on the future development of the whole Europe. Europe as a whole, and Central and Eastern Europe is losing its share in the world economy because of the much faster rising new Asian and overseas economies. Historical dataset shows continuous and sharp decline, which verifies our “steady European decline” expectation for a longer-term (Table 1).

Table 1

Shares from the global GDP in %

	1820	1870	1913	1950	1973	2003	2030
West Europe	23.0	33.1	33.0	26.2	25.6	19.2	13.0
CEE	3.6	4.5	5.0	3.5	3.4	1.9	1.3

Source: Zoltan Gal’s calculation based on Maddison’s database (2007) and Berend (2011)²

The historical trajectory of Central and Eastern Europe differed significantly from that of the West and it was characterized by perpetual attempts of catching up. The CEE region became the periphery of a transforming West during the early modern Age (16-17th century). The

¹ In this article the term of Central and Eastern Europe refers to the Eastern Regions, Danubian Macroregion and Central European region used in our previous ET2050 interim reports.

² Berend, I (2011) Central and Eastern Europe in the World Economy: Past and Prospects. 2011. May 3-9.

² Maddison, A. 2007: *Contours of the World economy, 1 – 2030 AD, Essays in Macro- Economic History*, Oxford: Oxford University Press.

nineteenth and twentieth centuries were characterized by three major periods (waves) of catching up with the West.

1. Turn of the 19th and 20th centuries experienced *the most successful catching up*
2. Modernization under the centrally planned economy
3. Post-communist transformation and transition

The region's income level during the turn of the 19th and 20th centuries experienced *the most successful catching up to the West*: according to our calculations based on Angus Maddison's dataset the per capita GDP of the 7 states and their successor states³ in comparison with the 12 most developed Western European countries⁴ in 1910, with 48.5 per cent reached the highest peak, and by 1920 the region suffered from a serious setback, with 36 per cent following the post WWI border changes. Comparing per capita GDP levels of the seven Central and Eastern European countries still reached only 42 per cent of the Western average by the mid-twentieth century. The policy of forced capital accumulation and heavy industrialization in the framework of the centrally planned economy resulted in a successful and very rapid convergence during the 1960s. Its per capita income reached the highest peak by the mid 1970s, 44 per cent of the West in 1975, and declined to 41 per cent by 1980. Post-communist transformation and a fast privatization led to a tragic decline of 20-25% of the GDP, and 20% to 30% decline of industrial output. The GDP per capita level of CEE reached its lowest point in 1992 (26,6%) and entered the period of half decade of growth crisis and stagnation. *In summary, we can generally argue that during the last quarter of the 20th century the transition process of CEE generally slowed down and started to decline.*

Central and Eastern Europe in relative terms, comparing to Western Europe, is far behind its 1910 relative level (Figure 1). After the severe decline in the first transformation years, the region's economy gradually and temporarily recovered: from 1994 economic growth returned and between 1994 and 2003, reached 4-5% per year in Central & Eastern Europe and the Baltic area. While the region's per capita GDP reached only 27% of the West European level in 1992, by 2005, it reached 35% (virtually the same level as in 1989, and by 2011 reached 40%, exactly the same as in 1957) (Berend, 2011).⁵ Meanwhile, income and intraregional differences significantly increased. One-, one-and-half decades of gradual catching-up period with the West started in the late 1990s with faster growth rates and productivity increase, but this stopped in 2007-2009. Our calculations reflect less than half (40%) of the Western level achieved in Central and Eastern European countries in our dataset by 2010.

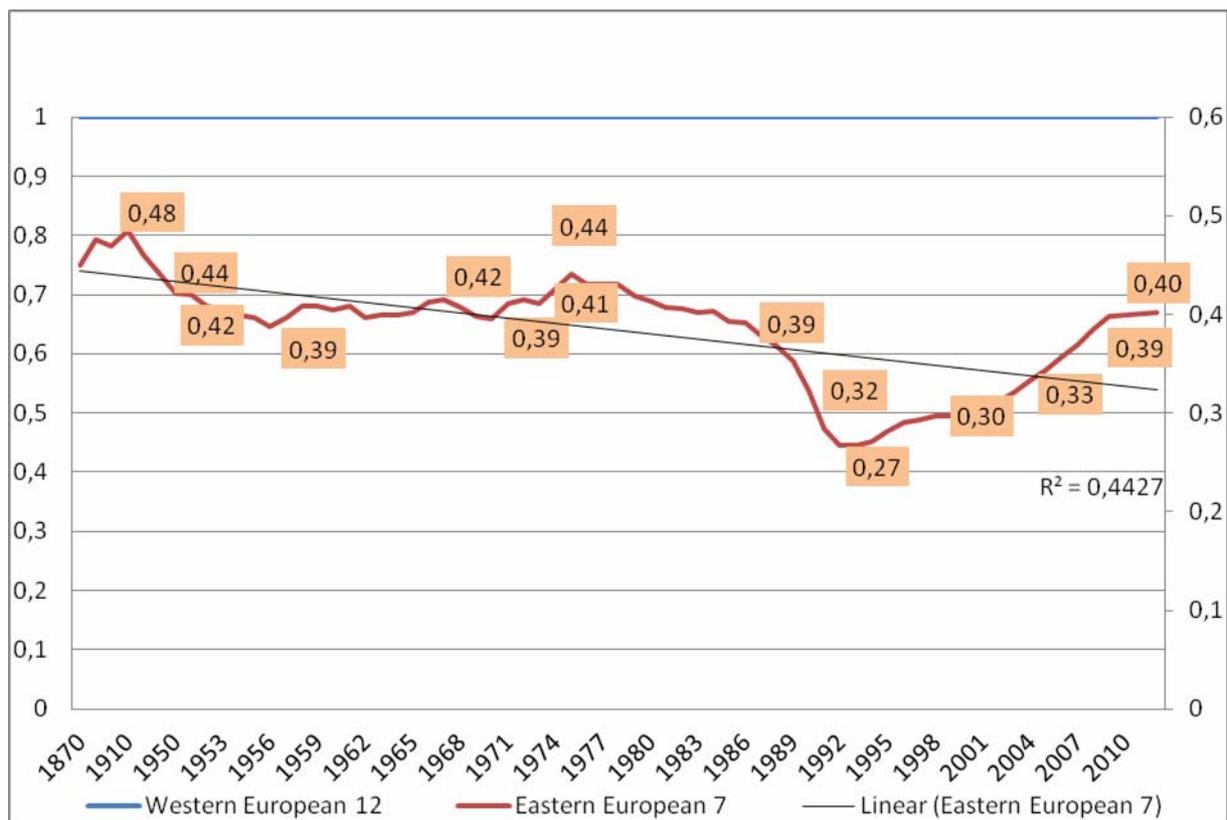
Figure 1

Changes in per capita GDP level Eastern Europe (7+) CEECs & SEECs in comparison with Western European Countries (12 =100%) between 1870 and 2012

³ Albania, Bulgaria, Czechoslovakia (or Czech Republic, Slovakia), Hungary, Poland, Romania, Yugoslavia, (Croatia, FYROM Macedonia, Serbia, Montenegro, Slovenia, Bosnia). It is not included Baltic states and covers non-EU members from the Balkans which are part of the wider macro-region.

⁴ Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Sweden, Switzerland and United Kingdom.

⁵ Berend (2011) *ibid.*



Source: Zoltan Gal's calculation based on Maddison database

In the crisis aftermath, until 2030, an average moderate economic growth is expected in the region. According to Angus Maddison (2007), CEE (Central & Eastern Europe) may reach an annual 1.79% annual growth between 2003 and 2030, while Western Europe will have 1.75%. *ET-2050 scenarios predict average growth not more than 2.2% for CEE.* If this almost stagnation/or low growth is the case, the existing gap would hardly change and Central and Eastern Europe remains on the European periphery.

Systemic and structural characteristics of the transition process in the Eastern regions

Although global financial capital has, undeniably, come to play an important role in all 'transition' economies, while the current global crisis has had devastating effects everywhere, many post-socialist countries in Europe are among the hardest hit and CEE is falling behind its peers in other emerging markets. The global financial and economic crisis exposed the weaknesses of the post-socialist neo-liberal economic development model in East-Central Europe.

CEECs followed the pattern of a *dependent market economy (DME)* type of capitalism which is characterized by high dependency on imported foreign capital.⁶

If we try to place the CEE in the comparative typologies of capitalism following Nölke and Vliegthart's⁷ argument, the primary source of investment in the CEE is foreign direct investment, not the stock market as in Liberal Market Economies (LMEs) or domestic credit as in Coordinated Market Economies (CMEs). Although FDI does play a role in the CME and LME models, the degree of external dependency is much more extreme in the CEE. As DMEs are heavy importers of capital, the ratio of inward and outward FDI stock is much higher than in the old EU Member States due to the low level of capital exports (OFDI) from these countries.⁸ It shows that there was a shift of ownership of the from public to private and at the same time from domestic to foreign owners through privatisation. In CEECs the period of "transition" has come to an end by their EU accession and their position in the wider context of global political economy followed the pattern of the third basic variety of capitalism —a dependent market economy (DME) type of capitalism which is created an unequal power relation between the home countries and CEECs through parent-subsidiary networks of TNCs (Raviv, 2008., Nölke and Vliegthart, 2009, Myant and Drahoukoupil, 2010). The dependency approach is contrasted by the traditional "modernization theory" which highlights the key role of MNCs in institutional development, stability and the increase of financial depth of the banking sectors (Várhegyi, 2002, Banai et al., 2010, 2005, Csaba, 2011, Gál 2013)⁹. FDI inflows have channelled by foreign MNCs in the CEE in the past 20 years to become the most common type of capital flow. FDI inflow into CEE economies has been a vital factor in the first stage of privatisation, and FDI became the predominant type of incoming capital investment in the first stage of the economic transition. This process not only facilitated the restructuring of the formerly centrally planned economies but privatization as well. The banking and insurance sector, and high and medium-tech manufacturing (automotive industry) became the primary target of strategic foreign investors. In these sectors foreign ownership ranges between 80-90%. Similar to global processes, the entry of foreign banks was geographically or regionally concentrated, and the main investor banks came from traditional or strong economies and trading partners (mainly from eurozone countries) (Gál, Sass 2013b)¹⁰.

⁶ See: O. Raviv, 'Chasing the Dragon. East: Exploring the Frontiers of Western European Finance', *Contemporary Politics*, Vol. 14, No. 3, September 2008, pp. 297-314; A. Nölke, A. Vliegthart, 'Enlarging the varieties of capitalism: The emergence of dependent market economies in East Central Europe', *World Politics*, Vol. 61, No. 4, October 2009, pp. 670-702; M. Myant, J. Drahoukoupil, *Transition Economies: Political Economy in Russia, Eastern Europe, and Central Asia*, Wiley-Blackwell, Hoboken, N.J., 2010.

⁷ A. Nölke, A. Vliegthart, *op. cit.*, pp. 670-702.

⁸ A. Nölke, A. Vliegthart, *op. cit.*, pp. 670-702.

⁹ Gál Z. Role of financial sector FDI in regional imbalances in Central and Eastern Europe. In: Gostyńska A, Tokarski P (eds.) Eurozone enlargement: challenges for the V4 countries. Warsaw: The Polish Institute of International Affairs, 2013. pp. 19-30. (ISBN:978-83-62453-69-6)

¹⁰ Gál, Z. and Sass, M. "Financial FDI in CEECs revisited – in the context of the dependent market economies model" paper presented at RSA Network Seminar on Finance in Transition: Lessons for the Future, Thursday 16th – Friday 17th May 2013, Bratislava,

The strong dependence on foreign capital could be a considerable destabilizing force particularly during crisis times. This also increases indebtedness and risk, which are ultimately unsustainable in the long run. The role of foreign savings in promoting economic growth in the CEE-12 countries was undoubted in the short run and in a growth environment but this is rather not true in the long run and in crisis times therefore the strong correlation between higher FDI increase and higher growth can not be proved in the CEECs. Foreign investors not only contributed to the modernisation of the economy, but also increased its structural and spatial segmentation created by the “dual economy”.¹¹ The strong correlation between higher FDI increase and higher growth can not be proved in the CEECs. Camagni’s sensitivity analysis (2013) found the same since new investments generate higher imports. Former IMF chief economist Rajan¹² found that developing/emerging countries that relied more on foreign finance have not grown faster in the long run and typically have grown slowly.

Territorial impact of economic transformation in CEECs

Increasing national disparities within CEE

There are more rapidly increasing national disparities as the convergence process and catching up process of previous decade are jeopardized and has suddenly being reversed or slowed down after the crisis (Figure 2). All countries of the Macro-region are less developed than the EU average, but a catching-up process can be observed in all countries unanimously before the crisis (Table 2).

Table 2 Per capita GDP as a percentage of the EU average

	1995	2000	2005	2011
EU	100	100	100	100
Bulgaria	32	27	37	45
Czech Republic	77	71	79	80
Croatia	46	50	57	61
Hungary	51	54	53	66
Romania	33	26	35	49
Slovakia	47	50	60	73
Poland	42	47	51	65

¹¹ The term ‘dual economy’ can stand for characteristics caused by *organisational and structural differences among economic actors (large and small enterprises)*. In CEE’s case, these are embodied in differences between foreign-owned, more productive and high-tech large enterprises, on the one hand, and domestic/indigenous SMEs, on the other. One can also speak, however, of a *dual regional economy*. This term points to a developmental gap between dynamic centre(s) and peripheries.

¹² See: R. Rajan, E. Prasad, A. Subramanian, *op. cit.*;

The net assets position and current account balance is more positively correlated with growth. This is due to the limited ability to absorb foreign capital in developing countries. There is now evidence that emerging countries grow fast and run large current account deficits. This was the case in much of the CEE, where inflow of foreign capital was accompanied by large current account deficits, which had an effect on the exchange rate, resulting in a decrease in competitiveness

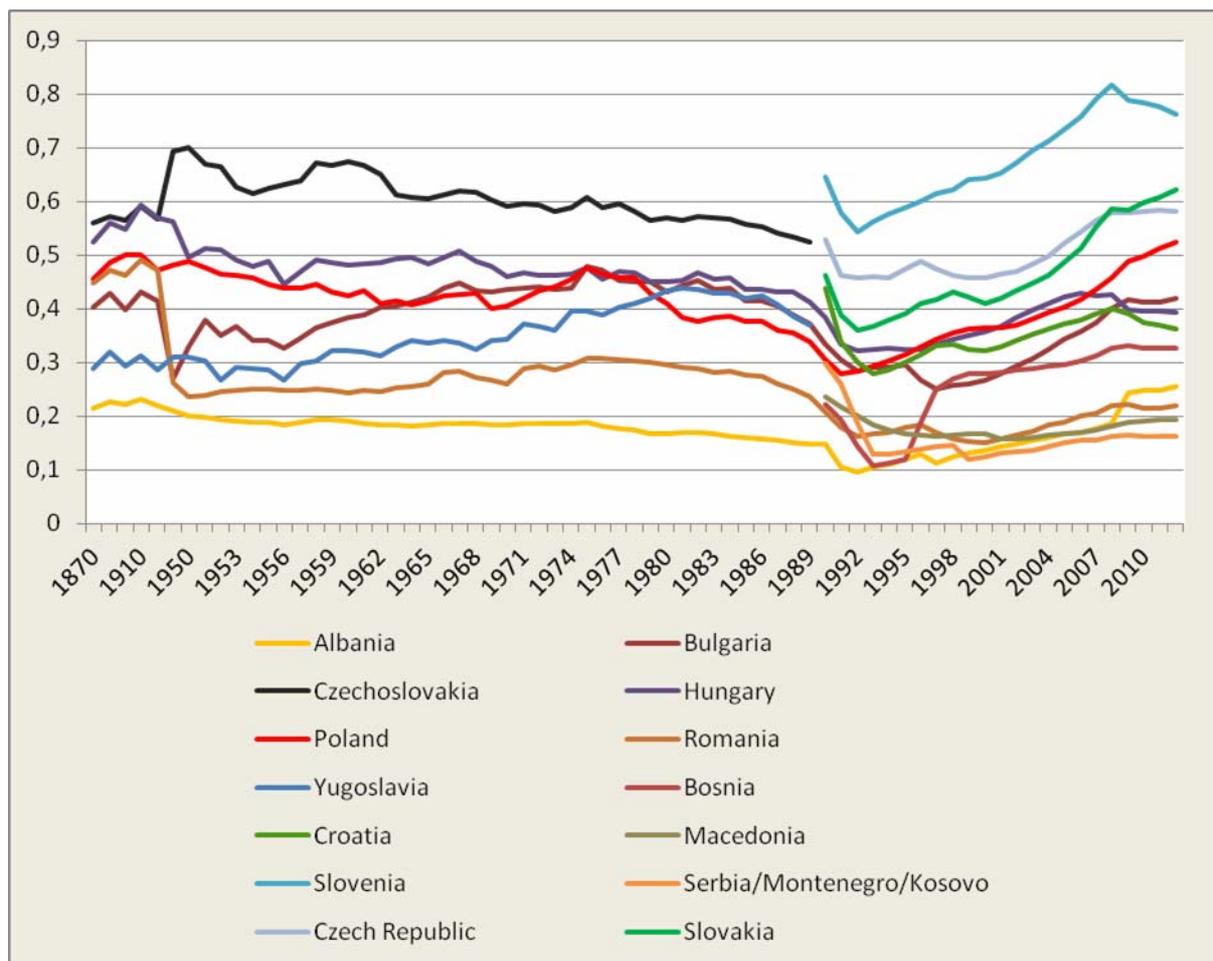
Source: EUROSTAT.

Eastern European countries had different growth prospects, some of them growing at moderate level, like Poland, as well as other countries after carrying on drastic fiscal reforms, like the Baltic countries. While more developed countries in the EU will grow because of productivity increases, less developed countries may grow in the short-term because of the reduction of the current unemployment levels, and a reduction of salaries in real terms. Income and intraregional differences significantly increased and remain high in the foreseeable future.

Low-income-based competitiveness represents a development trap that counteracts the accumulation of financial and social capital, hinders upgrading to high value-added production, and encourages migration to higher-wage regions. The reduction of salaries is uneven across sectors and social classes and may result in social conflicts. *Our graphs verifies the increasing disparities between countries located in the region.* Sustainable catching up process is jeopardised by the dualistic feature of the transition economies unveiled the weakness of indigenous (domestic) sectors. *Despite European catching-up processes, the large economic and territorial inequalities can not be eliminated in dependent economies due to constant capital scarcities*

Figure 2

Changes in per capita GDP level in CEECs in comparison with Western European Countries (12 =100%) between 1870 and 2012



Source: Zoltan Gal's calculation based on Maddison database

Increasing regional disparities

Concerning the *territorial outcome of economic transformation* within the socio-economic space of the survey area, an ongoing shift is observable in development levels and European catching-up processes, although the large economic and territorial inequalities can not be eliminated even during non-crisis times. The transition has exacerbated the territorial inequalities and the crisis has further increased the *regional disparities*. At regional level, we may see disparities growing more than before. In the new member states (NM13) capital regions are the winners, while rural and eastern border regions may likely be the losers. A continuation of the present situation towards 2030 years is a likely outcome, if there are no significant political or technologic changes. *Clashes between growth- and sustainability-oriented policies are to be expected, and development may involve different sectoral mixes than in developed regions.*

Convergence processes have been the most beneficial for capital cities and no region outside capital regions has experienced a significant improvement in development ranking. Economic growth also concentrated within capital regions (Hardi-Hajdú-Mezei 2009). In some cases, the capital city region was the only carrier of economic development, and all other regions faced a decline. Convergence processes have been most beneficial for capital cities. It means that the overwhelming part of GDP is produced in the capital-city-regions (in

Bulgaria 48%, in Hungary 48%, in Slovakia 60%, in Croatia 47%). This result can be interpreted also in a wider context. In the period 1995–2009, peripheral countries and especially their capital city-regions grew more rapidly than other regions and cities of the European Union. Table 3 below presents this relation.¹³

Table 3

The change of the relative development level of capital cities and capital regions in the EU 1995–2009

Capital city or region	Country	Per capita GDP as a percentage of EU15 average		
		1995	2009	Change
Stockholm	SVE	196	192	–4,0
Prague	CZ	49	123	+74,0
Madrid	ESP	103	128	+25,0
Budapest	HU	49	88	+39,0
Bratislava	SK	41	121	+80,0
Bucharest	RO	13	41	+28,0
Attiki	GR	70	115	+45,0
Lisbon and Tejo Valley	PT	84	95	+11,0
Uusimaa	FINN	175	190	+15,0
Central Hungary	HU	38	65	+27,0
Mazowieckie	PL	24	55	+31,0

Source: Eurostat. Gál-Illés-Lux (2013)¹⁴

With the financial crisis, fundamental economic processes have not changed, but regional disparities are showing an increase between centres and peripheries. Capital regions have continued to grow, while regions integrated into global production networks have experienced a severe short-term impact on their primarily FDI-, manufacturing- and export-driven economies. The more stagnant group of eastern and south-eastern regions with lower FDI penetration and network-building were less affected. *However, periodic upturns on the basis of German demand have rejuvenated export-driven manufacturing, whereas the impacts of the crisis persist in branches serving depressed domestic demand – and the territories where these branches are located.*

Polarised development is one of the most serious problems of the CEE (Eastern) Region. Divergence was a phenomenon in this area already before the system change and before EU membership. *After EU membership the divergence of GDP per capita continued both between counties and within countries as well.* The macro-region is also notable for its internal disparities. The poorest region of the EU where the GDP per capita is less than 30 percent of the EU average are here (Sevarozapaden and Severen tsentralen in Bulgaria, Nord-Est in Romania). On the other hand, all capital city regions (Praha, Közép-Magyarország, Zahodna

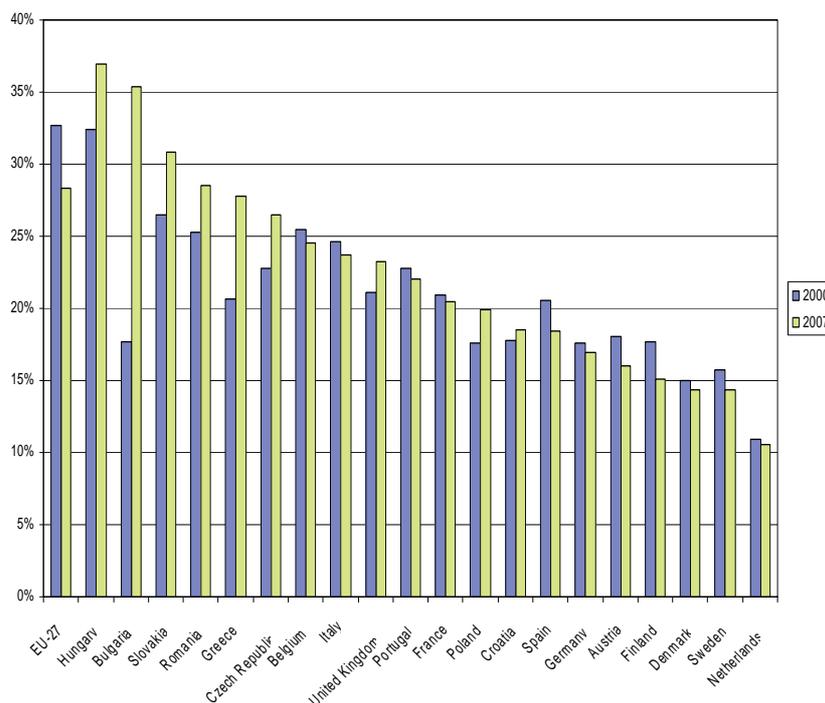
¹³ The concentration of advanced business services corresponds to the urban network: it exceeds 50% in the capital regions of Slovenia, Slovakia, Bulgaria, Hungary and Croatia, is at 43% in the Czech Republic (with Brno as a notable counterpole), and below 40% in Romania, where a more polycentric urban network is present. Outside capital cities, high technology sectors have the highest employment share in western Hungarian and Czech regions, and the lowest in Romania and Bulgaria.

¹⁴ Gál Z., Lux G., Illés I. 2013.: Danube Region: Analysis and Long-Term Development Trends of the Macro-Region. Szerk.: Gál Z., Lux G., Illés I. Pécs: Institute of Regional Studies Research Centre for Economic and Regional Studies, Hungarian Academy of Sciences, 59 p. (Discussion Papers, 90) (ISBN:978-963-9899-62-9)

Slovenija, Bratislavsky kraj, Bucuresti-Ilfov) have higher per capita GDP than the EU average, in the case of Prague and Bratislava, double the average (due in part to not counting their extended agglomerations). It is shown on the enclosed diagram that the largest divergence can be experienced in the new member states and within them in the CEE Region.

Figure 3

Development gap between the most developed and the least developed regions (GDP per capita in the percentage) in 2000 and 2007



Source: Gál-Illés-Lux (2013)¹⁵

The largest divergence of GDP per capita within countries can be experienced by 5 member states: Hungary, Bulgaria, Romania, Czech Republic and Greece (older member) (Figure 3). It is also clear that divergence has increased significantly between 2007 and 2011.

¹⁵ Gál Z., Lux G., Illés I. 2013.,: Danube Region: Analysis and Long-Term Development Trends of the Macro-Region. Szerk.: Gál Z., Lux G., Illés I. Pécs: Institute of Regional Studies Research Centre for Economic and Regional Studies, Hungarian Academy of Sciences, 59 p. (Discussion Papers, 90) (ISBN:978-963-9899-62-9)

Scenario relevance

Despite “**Megas**” scenario produces the highest generative effects as public investment is concentrated in the largest metropolitan areas with the highest productivity throughout Europe in CEE region by placing emphasis on metropolitan growth, offers little in the way of integration possibilities for a large share of post-socialist space. Flows will orient even more towards national capitals, and resource concentration in mega-centres can be expected to encourage not only the backwash of local resources from the periphery (capital and human resources alike) but further de-industrialisation and accelerated tertiarization; a process that offers rather little to non-metropolitan zones. The clear winners are the capital-city regions resulting in a dramatic increase in regional disparities.

CEE countries and their economic growth benefit vastly from the implementation of “**Cities**” scenario, whereas the positive effects are comparable to those stemming from the more competitive “Megas” scenario. However, in Eastern regions the relative lack and weakness of secondary cities (regional poles) may be a hindrance factor. In order to achieve this more territorially balanced vision through polycentric development the critical mass of second rank cities have to be promoted partially through the complex multifund integrated territorial investments (ITIs) are included in the Partnership Agreements.

CEE having more numerous peripheral regions takes particular advantage of the “**Regions**” scenario in which NMSs grow faster than western countries; The promotion of rural and peripheral regions in the new member states in eastern Europe is stronger. A vision of integrated rural and urban areas might be the most favourable policy environment to mitigate regional inequalities and bring EU12 industrial milieus closer to Western Europe, since it would offer institutional incentives for the spreading-out of production and the reindustrialisation of the peripheries. Employment-wise, cohesion policies positively affect both rural and peripheral areas, which are expected to benefit the most from this scenario; This does not imply industry can retake its former employment share, but knowledge-intensive production can be more evenly spread, bringing with it further socio-economic advantages for smaller cities, towns and rural areas.

Economic convergence and differentiated industrial development

The relevance of industrial development and its territorial differences on the economic convergence of the EU12 country group maintains a key role in catching-up processes in the EU13, although with a reduced employment share. Different ownership structures, especially the dominance of Foreign Direct Investment (FDI) in driving industrial restructuring processes, has far-reaching consequences for capital accumulation, and the development opportunities of different region types. This also holds implications for the different ET2050 scenarios.

The main direction of restructuring in post-socialist Central Europe has been the sectoral shift towards services (tertiarisation). While this seems to be a manifestation of the modernisation process described by the Clark–Fischer model of structural change theory, the genuine phenomenon *carries three different implications*:

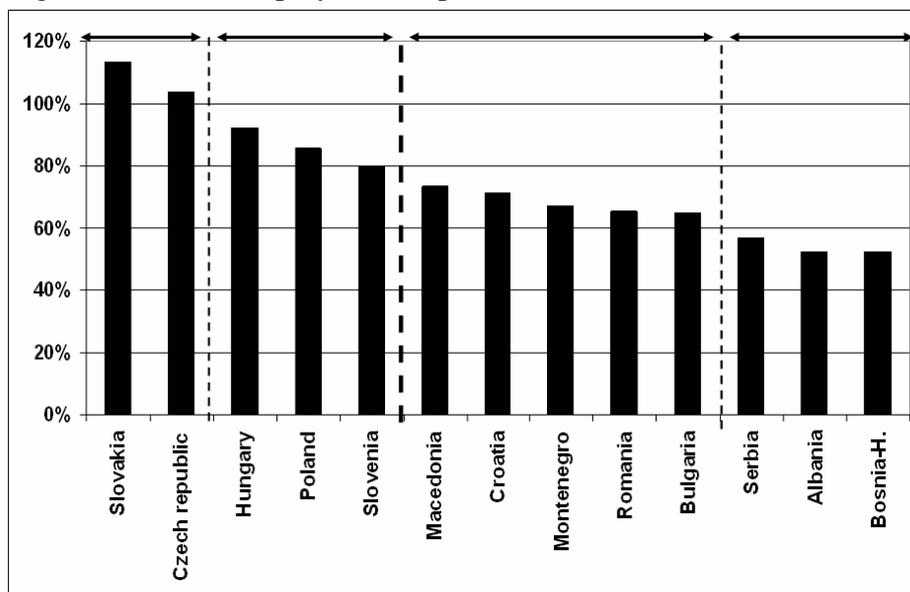
- the natural structural correction of over-industrialised economies;

- a modernisation process with new forms of value creation, employment and consumption;
- the dissolution of previous industrial specialisations without new forms of growth – a “hollowing-out” of the space economy characterised by stabilisation at a lower equilibrium.

The consequences of tertiarisation are *spatially differentiated*. The economic advantages of the modern service-based economy are still strongly concentrated in metropolitan areas, while on lower levels of the settlement hierarchy, we find services with much less local added value. The degree of tertiarisation between the national economies of Central Europe does not correspond to the degree of development – in fact, the reverse appears to be true, and differences emerge between a North-Western and a South-Eastern group (Figure 4). In this respect, countries that have been most successful at retaining a high level of industrial employment through FDI and the adaptation of endogenous industrial traditions have been the most successful.

Figure 4

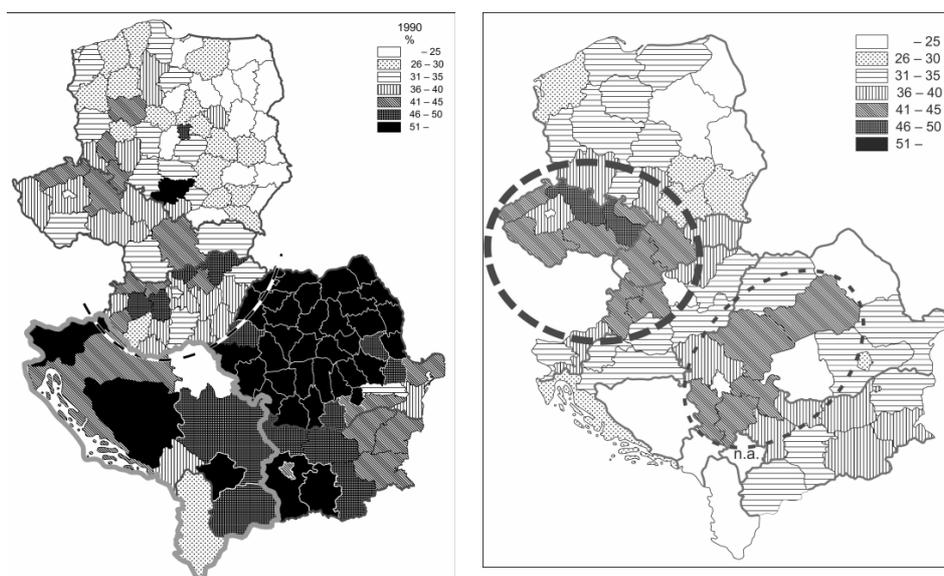
Change in industrial employment in post-socialist economies, 1990–2008 (%)



Source: Gabor Lux’s construction based on national statistical yearbooks and EUROSTAT

The transformation of Central European regions also results in realigned sub-national spatial positions: after capital cities, which have preserved their advantages, western border regions and gateway cities have become the most successful, becoming the main target areas of industrial FDI. With the strong agglomeration of advanced service activities and their modest contribution to the development of the peripheries, it can be empirically confirmed that in the Visegrad countries and Slovenia, economic development is only service-based in central regions (capital cities and their agglomerations): outside them, it is the distribution of industry which has a stronger effect on the formation of regional differences. This relationship is not shared by non-central regions in South-Eastern Europe due to the slower pace of structural transformation.

Figure 5: The spatial structure of industrial employment, 1990 and 2008 (%)



Source: Gabor Lux's calculations and construction based on national statistical yearbooks and EUROSTAT

Consequently, the location patterns of industry and services point towards a threefold pattern of regional differentiation (also see Figure 5):

- Central regions (capital agglomerations and a limited number of large cities, particularly in Poland) develop a primarily service-based economy integrated into global networks in a semi-peripheral role. These regions also fulfil control and service functions for industry, and play a vital role in high-tech industrial branches.
- The first group of non-central regions (intermediate regions) demonstrate relative strong industrial competitiveness; they are characterised by positive path-dependency and favourable restructuring processes, and they have successfully integrated into the Central European manufacturing zone (from the Central Czechia–Vienna–Bratislava–Budapest corridor to south-western Poland) stretching from Southern Germany to Northern Italy. While capital-city regions have continued to grow, while regions integrated into global production networks have experienced a severe short-term impact on their primarily FDI-, manufacturing- and export-driven economies. However, periodic upturns on the basis of German demand have rejuvenated export-driven manufacturing, whereas the impacts of the crisis persist in branches serving depressed domestic demand – and the territories where these branches are located.¹⁶
- The second group of non-central regions (traditional and new peripheries) are undergoing decline: neither their industries nor services achieve adequate competitiveness. During industrial transformation, they have either preserved their previous underdevelopment, or lost crucial industries without experiencing development in new branches or sectors. The more stagnant group of eastern and

¹⁶ Some FDI-driven industrial region (West-Hungary), in spite of their favourable economic structure, have experienced very modest catching-up, mainly due to worsening macroeconomic conditions and a failure to encourage the deeper embeddedness/spillovers of industry into regional production structures.

south-eastern regions with lower FDI penetration and network-building were less affected.

The differences of industrial decline and reindustrialisation are essential factors in regional competitiveness: cities and regions integrating into international industrial networks can also count on a substantial increase of business and consumption services. On the contrary, consumption-oriented services are unable to sustain the economy of even a smaller agglomeration with 100-200 thousand inhabitants. Balanced tertiary and industrial development assume each other, and where the productive sector shows disproportionate decline, support for reindustrialisation initiatives becomes warranted.

While FDI has dominated industrial restructuring since transition, the role of endogenous development must be reconsidered in the future. The modernisation and capital accumulation brought about by FDI has also resulted in *dual economies*, separated into weakly connected spheres of stronger MNCs and weaker, locally based domestic companies (mainly SMEs). The significance of ‘national champions’ was neglected under early post-socialism, and no attention was dedicated to the implications of different ownership forms. However, as capital accumulation processes, the dichotomy between command&control centres and branch plant sites, slowing investments and increasing profit repatriation show, there are concrete advantages in locally embedded domestic industries with a sufficient critical mass. Cluster development within international supplier networks provide opportunities to improve the domestic added value of manufacturing, while also keeping foreign firms embedded in the regional space economy. But it is also important to consider the development prospects of home-based companies – whether medium-sized enterprises creating an adapted version of the German ‘Mittelstand’ or the Italian ‘industrial districts’ and focusing on niche markets at home and abroad, or ‘national champions’ integrating their own SME networks.

Similarly, long-term European convergence necessitates the development of the institutional milieus which surround and integrate industry; in order to

- foster deeper embeddedness and more successful networking;
- ensure an advantageous factor supply (particularly skilled labour) in the long term;
- provide a framework for upgrading paths and innovation;
- and ultimately increase the resilience of industry in the spatial context.

Scenario relevance

The different scenario variants elaborated within the ET2050 project hold different prospects for the industrial development processes of the EU13 group. The previously discussed phenomena can be understood to be part of the baseline scenario. Under the baseline, industry can be expected to have a slowly diminishing share in employment and economic output, although its significance will stay above the Western European level, more closely resembling the German development path. Development will continue to be FDI-dominated, although the slow emergence of mid-tier companies in the EU13 is to be expected via capital accumulation. The institutional background and networking of industry will show a lag in comparison with Western Europe, and the institutional deficit of post-socialist countries can be expected to present a long-term competitive disadvantage that will be almost as important in the industry of knowledge-based societies as the lack of domestic financing opportunities. The critical question will be that of human resources, in particular the supply of skilled labour which can make industry competitive under continuously evolving circumstances.

The “MEGAs” scenario, by placing emphasis on metropolitan growth, offers little in the way of integration possibilities for a large share of post-socialist space. Flows will orient even more towards national capitals, and resource concentration in mega-centres can be expected to encourage further de-industrialisation; a process that offers rather little to non-metropolitan zones. Even though industry on the peripheries might stay competitive and maintain its current role for large cities, it can be expected to face a constant drain of human resources, and be unable to extend its networks to less dense hinterlands. In contrast, leading services are unlikely to locate outside metropolitan centres. Therefore, the disadvantages of this scenario can be seen as an opportunity cost to non-central regions.

The “Cities” and particularly “Regions” scenarios, which represent more balanced patterns of territorial development, might emphasise a higher significance of industry within the space economy. Large cities – discussed in the second scenario – as integrators of industrial production and industry-linked business services, can serve as an anchor for large enterprises, and maintain spreading networks towards smaller centres. In terms of knowledge production and transfer, this scenario might offer a favourable balance of concentration, which can contribute to the critical masses which are still weak on the European periphery. However, the national differences of urban networks can pose a certain degree of risk in actual development.

The “Regions” scenario offers the strongest vision of “spatial justice”, although at certain trade-offs. A more territorially balanced system of industry would be one favouring strong industrial districts and clusters, with high embeddedness but smaller individual firm size. This implies a break with unlimited global competition as well as the dominant neo-liberal paradigm, and necessitates a degree of conscious protectionism on the European level. A vision of integrated rural and urban areas might be the most favourable policy environment to bring EU13 industrial milieus closer to Western Europe, since it would offer institutional incentives for the spreading-out of production and the reindustrialisation of the peripheries. The conditions of technological change, particularly ICT, flexible production systems and CAD-based mass customisation can enable more dispersed patterns of manufacturing where certain industries can be dominated by highly flexible small and medium-sized firms. This does not imply industry can retake its former employment share, but knowledge-intensive production can be more evenly spread, bringing with it further socio-economic advantages for smaller cities, towns and rural areas.

The role of secondary cities in the urban network

Based on data from 2000, the 2004 ESPON 1.1.1 programme analysed the urban network of European space from the perspective of polycentric development. The studies were conducted – among others – on the level of **functional urban areas** (FUAs). National urban networks were examined with regards to size, location and their relationship network. The EU13 group includes both polycentric (Slovenia, Poland and Romania) and mono-centric countries (in Hungary, there is one **MEGA**). But generally, the largest cities following the capital, most of them centres of NUTS 2 regions, do not achieve a critical mass on the European level which would allow them to be counted among cities of international significance – sometimes the entire tier of cities with 400-600 thousand inhabitants is missing.

The primary reason here can be found in the differing settlement system of the different countries. If European cohesion policy genuinely wants to involve the whole of the Union within its economic space, it must also encourage the development of the currently weak elements of the European urban network. It is unrealistic to propose to develop regional seats

to Western European levels, but they must be able to fulfil their roles as regional centres. ¹⁷In recent years, significant development has taken place in these centres, and these are not just regional, but potentially international in their significance. The following reasons can also be noted for their inclusion:

- Conforming to the goals of European territorial policies (ESDP, territorial Agenda 2020), including polycentrism, multi-polar development, subsidiarity, etc.
- They are the seats of NUTS 2 region.
- They often have regional airports.
- Most of them have highway access.
- Most of them are university centres.
- All of them possess significant cross-border and other international linkages.
- The emphasised development of these cities are included in the Partnership Agreement, and they will be the subjects of complex multifound integrated territorial investments (ITIs).
- Other notable EU projects include these cities on European urban network maps (e.g. ESPON PlaNet CenSE)

Demographic challenges

The EU13 (the Danube Region and Central and Eastern Europe) is the only macro-region in the EU where the population is not increasing but decreasing, particularly in Hungary and Romania. The decrease has both natural and migratory reasons. The birth rate is low and the death rate of adult men is especially high, resulting in the natural decrease of population in most countries. The indirect demographic consequence of population decline is resulting in workforce shrinkage and the decline of economically active population. Pressures on governments to finance an increasing number of retirees while labour reserves shrink might dominate policymaking to the detriment of European catching-up. Ageing combined with migration and limited savings will place a significant burden on national budgets; in the medium term, this will be compounded by a cohort of minimum-waged or 'informal economy' residents reaching pension age.

Natural population decrease is boosted by disadvantageous socio-economic conditions and intensifying outmigration. The consequences of the side effects of transition and the recent crisis are notable, and the expected long-term wage gap between the EU15 and EU13 will continue to play a major role in migration incentives. This asymmetrical effect disproportionately encourages young, active and skilled workers to take advantage of better conditions in the EU15, while it puts heavy strain on the economies and social support networks of the EU13. Doctors, medical personnel and engineers are overrepresented among the migrants. If emigration continued at the current rate, then – by 2030 – doctors would disappear from the Czech Republic, Slovakia and Hungary. The decrease of domestic factor supply and resulting de-skilling of the labour force puts brakes on the macro-region's growth potential, and represents long-term capital loss.

Depopulation is spatially differentiated; more significant in sparsely populated rural and border regions and in the Eastern part of the macro-region. Increased internal mobility within countries is leading to the concentration of population in heavily urbanised, particularly

¹⁷ We suggest that the largest cities in national networks (e.g. Debrecen, Szeged, Pécs, Győr and Miskolc in the case of Hungary) should be included on the ESPON map (See OECD FUA Survey).

metropolitan areas, and depopulation in peripheral rural areas, border and mountainous regions.

Scenario relevance

The different scenarios developed by the ET2050 project do not imply radical differences from the baseline described above, and the degree of continuous population decrease shows hardly any change under the different variants. However, they imply qualitative differences which should be taken into account, particularly in the spaces favoured or neglected under the different scenarios.

The “MEGAs” scenario would lead to the highest degree of internal differentiation in the EU13, and would imply the partial “abandonment” of the periphery in favour of selected strong metropolitan areas. Under this scenario, migration from underdeveloped and less dense areas (including smaller towns) would be very significant, with corresponding urbanisation and increasing competitiveness in the centres. The shrinking peripheries may experience a shift towards less intensive forms of land use (e.g. second homes, extensive agriculture or reforestation), but there is also the threat of rural marginalisation accompanied by the development of socio-economically segregated “rural ghettos”. The threat of social costs is not insignificant, since poverty still has a strong rural component in the EU13 – and even more so in potential future candidates. It must also be mentioned that congestion and sprawl effects are already apparent in metropolitan areas, and may increase further under the dominance of MEGAs.

The “Cities” and “Regions” scenarios, which can be seen as similar in this respect, offer a more territorially balanced vision through polycentric development. This direction would take advantage of agglomeration advantages in city centres, but also the possibility to integrate more and less dense areas with improving transport connections, ICT access and mobility. This implies lower internal differentiation and a sense of “spatial justice”, albeit at a potential overall growth penalty which might be realised under the “MEGAs” scenario. However, its unquestionable advantage lies in the preservation in Europe’s unique settlement network heritage, which carries both significant territorial capital, and socio-economic development potential.