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THEORETIC CONCEPT OF ECONOMIC AND ECOLOGICAL CONVERGENCE

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The issue on whether or not poor regions tend to catch-up richer ones plays a significant role in regional growth theory. The empirical growth models were relying more on available data such as real per capita income, savings and investment, government expenditures, exports, labor force and its structure by industries, education variables like school enrollment, etc. The concept of economic convergence according to Matkoski and Prochanik (2004) should be address in two aspects. First, a tendency towards leveling (equalization) per capita incomes and growth rates among counties (regions). Second, tendency toward economic cycle convergence (that is ups and downs of economic cycles ideally should conform). Both convergence concepts are independent and tested separately. In our research we address only first part of the issue, for it is assumed that within boundaries of one country economic cycles should coincide due the equality of macroeconomic conditions.

In empirical researches there are basically four main approaches to study convergence processes: sigma convergence, absolute beta convergence, conditional beta convergence and stochastic convergence. Historically according to Sala-i-Martin (1994), first appeared sigma convergence approach, which compares standard deviations, variances for the different economic indicators across time for specific groups of countries (regions). Absolute convergence means that if the regions are fairly similar and under same conditions (e.g. within one country or Union) they should approach the same absolute level of steady state in all social standards (economic, ecological, social parameters). Conditional beta convergence means that it is not possible to achieve unique steady state by all countries (regions), due to the differences in national, natural or historic achievements.

According to Varblane and Vahter (2005) transition countries do converge in per capita incomes with developed ones. Thus, new EU members including Romania and Bulgaria managed to reduce per capita income gap against old members on 10–20%. Those remarkable results were achieved during one decade. Moreover the growth differential

between “old EU” and new accession countries during 2001–2004 was about 2.2%.

The early studies in 1990s on economic convergence of transition economies to EU standards forecasted a time of span about 40–90 years. However according to Varblane and Vahter (2005), during last decade new EU countries managed to implement all structural reforms and considering the last tendencies in their development it will be needed 20–35 years to reach the EU income level. Additionally Iancu (2007) states that one of the poorest new EU countries Romania can catch up with leaders in 30–50 years depending on annual Romanian growth rates from 4 to 8 percent annually.

The speed of economic convergence in Ukraine is about two times higher than regional convergence in developed countries. The last point is basically explained by higher initial differences between regions in Ukraine and developed countries. Also we found presence of ecological convergence of Ukrainian regions. This conclusion is also supported by Ukrainian statistical data. During 1999-2010, nearly every region in Ukraine has shown an increase in pollution, and only few decreasing trends have been observed.

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