Changing spatial economic structure of East Central Europe - A historical review -

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Abstract

The economic development of East Central Europe within the last one and a half century can be simply divided into different sessions. Each session has had its own social, political system, which has essentially determined the spatial distribution of economy and the degree of regional disparities in terms of level of economic development.

In this paper the five sessions of economic history of East Central Europe are analyzed and compared. The sessions are as follows:

• Pre-industrial interval before the mid-nineteenth century;

• The age of modernisation and industrialisation before the First World War;

• The age of integration and disintegration during the inter-war period;

The age of emergence and decay of state socialism in the second half of twentieth century;
The age of transition with reorientation and reintegration after the early 1990es.

Key words: economic history, East Central Europe, spatial structure of the economy

JEL Classification: N30

Introduction and the theoretical background

The explanation of the actual regional differences of East Central Europe in terms of economic development can not be entire without the knowledge of the historical preliminaries. The aim of this paper is to provide a comparative historical investigation of East Central Europe and an overview and models of the changing spatial inequalities. I wish to identify and present those factors which influenced the spatial distribution of economy from period to period.

The examination of the periodic nature of economic development inspired several researchers in the previous decades. W. W. Rostow identified and described a 5-stage growth theory in his book published in 1960. Later in the 1970s J. R. Friedmann [1] and H. Richardson [2] developed further the Rostow-theory. The former assigned a major role to industry in the process of resource arrangements and in the formation of sites, while the latter author adapted the identified mechanisms to developing countries [3].

It was J. G. Williamson [4] who -following the footsteps of S. Kuznets- started to study the relationship between economic development and spatial development inequalities. According to his view, the degree of disparity varies in the various stages of economic development. The change of disparities over time can be displayed by a reversed U-shaped function. Even today, this Williamsonian view can be considered to be the theoretical basis, despite the fact that the adaptation of the model to emerging and transitional economies remains somewhat contentious [5].

In the economic development of East Central Europe from the mid 19th century until today, the Friedmannian and Williamsonian periods can be clearly identified. The only discrepancy is the appearance of the Soviet socialist power and ideology after the Second World War. In compliance with this, the three main milestones which separate the various periods in my

study are the following: the first, the Second World War and the economic and political changes at the turn of the 1980s and 1990s. The article is divided accordingly.

The age of modernisation

The middle of the 19th century, as the starting point of the study is justified by the fact that the industrial revolution started at this time in East Central Europe. Prior to this date in the preindustrial age, rural societies and predominantly agrarian economies existed in this area. When describing the era before the industrialisation, it is important to point out that the spatial appearance of the population and that of the economic activities showed only limited differences, i.e.: it was balanced and unconcentrated. The disparities were mostly caused by the differences in the natural environment such as the climate, the weather, the soil conditions, the features of the terrain, water courses and vegetation.



Graph 1: The model of spatial structure in the pre-industrial age. *Source: Author's compilation.*

Yet, over time, starting from the 1870s-1880s until the First World War, the industrialisation progressed at an ever-increasing pace, which -from the point of view of the spatial structurewas accompanied by two important phenomena namely urbanisation and the development of traffic infrastructure especially that of the railway network. It is important to note from a political and economic point of view that the central part of Europe was divided among the three powers of the Holy Alliance, namely the Habsburg Empire (later to be called as the Austro-Hungarian Monarchy), the Kingdom of Prussia (later referred to as the German Empire) and the Russian Empire. Its importance was that -apart from the difficulties arising from the political and cultural oppression- East Central Europe gained access to large and populous markets where it could sell its agricultural produce and industrial products.

In the age of modernisation, the geographical situation and concentration of the societies and as a corollary the economies of East Central Europe changed. Three factors influenced the localisation of the population, the work-force and the economic activities. The first and most important one is the natural increase of the birth-rate, which was the highest in the Polish-Russian territories (76% increase between 1887 and 1910), lower in the Prussian-Polish parts (46%) and the lowest in the Austro-Hungarian Monarchy (35%) [6]. The second one is the phenomenon of urbanisation which -thanks to the increased number of jobs and the ability to cater for the needs of an increased number of people- gave a boost to the number of urban population. First and foremost Budapest, Warsaw and Prague became a metropolis on a European scale, but Lódz, Krakow and Szczecin also exhibited rapid growth rates.

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Name of the city	1870	1910
Budapest	320	880
Warsaw	308	771
Prague	252	640
Wroclaw	239	512
Lódz	39	352
Szczecin	81	236
Gdansk	98	170
Poznań	66	157
Krakow	50	150
Brno	73	126
Szeged	70	103

 Table 1: The most populous cities in East Central Europe (thousand inhabitants).

Source: Author's compilation by Magocsi [6].

The third factor was the mass emigration to the New World which predominantly reduced the population of rural areas. As a result of the economic development more and more people had achieved a middle-class status, nevertheless besides the process of gentrification until the First World War approximately 3.5 million people had emigrated from the Monarchy, most of them to the United States of America. During the same period, from the Polish territories about 4 million people emigrated to the USA, France or other parts of Western Europe.

Parallel to the disparities in population, significant income inequalities emerged. The Austrian Hereditary Lands and Bohemia-Moravia had income levels well above the national average, while other parts of the state lagged behind substantially [7]. Hence, this medium-level development concealed substantial territorial inequalities.

Name	Crown
Austrian lands	790
Bohemia and Moravia	630
Hungary	327
Dalmatic and Slovenia	300
Bukovina	300
Galicia	250
TOTAL	438

Table 2: Regional differences in the Austro-Hungarian Monarchy(by regional GNP per capita in 1913).

Source: Author's compilation by Horváth [8].

Poland showed similar disparities as the Monarchy. The industry was far developed in the Russian parts, while the German parts were dominated by agriculture.

During the period of modernisation East Central Europe was characterised by the first wave of urbanisation and industrialisation, by the migration and growth of population and -as a result of the development in infrastructure- by an unbalanced territorial structure. During this period the spatial socio-economic inequalities increased a great deal which was accompanied by the increasing concentration of economic activities. The largest agglomerations in East Central Europe by the end of this period were Budapest, Warsaw and Prague, while Lódz Krakow and Szczecin exhibited the fastest growth rates.



Graph 2: The model of spatial structure in the age of modernisation. Source: Author's compilation.

The age of integration, disintegration and isolation

By the early 1920s the map of East Central Europe had been transformed a great deal. The new borders drawn up by the peace treaties concluding the First World War initiated the process of integration in the north and disintegration in the south. After more than one century an independent Poland reappeared again on the northern part of East Central Europe; moreover as one of the largest states of Europe. In the south, new states emerged following the disintegration of the Monarchy. The borders which had been altered and multiplied, now offered new political-administrative circumstances. This statement was especially valid for the territories of the former Austro-Hungarian Empire and the newly-born Poland [9].

The total new political map of East Central Europe drawn by the peace treaties did not create a stabile status, which can be traced back to many reasons. Rothschild [10] named ten among the most important features:

- economic underdevelopment;
- weakly mechanized agro sector;
- overpopulated rural areas;
- significant, poor peasantry;
- insufficient infrastructure;
- weak or missing social middle classes;
- insufficient educated bureaucrats;
- lack of comprehensive literacy;
- limited experience in the field of parliamentary democracy;
- lack of capital investment.

To the above mentioned Rothschildian list at least one point can be added. The borders especially in the case of the territory of the former Monarchy- separated the resources and the capacities of the processing industry. That is the reason why the successor states should have realised substantial trade in order to maintain or to increase efficiency. Instead, isolation, mutual mistrust dominated the international relations. The reason: the new states were only a little less ethnically heterogeneous than the former ones. The winner states integrated a substantial amount of minorities into their respective countries which implicitly implied a demand for revenge and revision from their part. Unfortunately this led to isolation and competition among the countries of the region which is underpinned by the increasing customs duties presented in the following table.

Name	Manufactured goods (%)			
Ivame	1913	1925		
Austria	18	16		
Czechoslovakia	18	27		
Poland	13-18	27		
Hungary	18	32		

Source: Author's compilation by WTO [11].

The Great Depression in 1929 had an extremely negative impact on the region of East Central Europe, since it reduced dramatically the already rather meagre amount of capital investment flowing into the region. It is important to note that up to the Great Depression in 1929, the regional disparities in development had not changed fundamentally. Only the economy of Hungary started to decline as a direct result of the substantial loss in the territory of the country and the policy led by the Little Entente aiming to isolate Hungary.

 Table 4: Absolute and relative position of East Central European countries by level of development.

Name	GDPpc (int. \$ on 1990 prices)			GDPpc (Austria=100%)				
Ivame	1870	1890	<i>1910</i>	<i>1929</i>	1870	1890	1910	<i>1929</i>
Czechoslovakia	1 509	1 912	2 495	3 046	79,8%	83,5%	82,7%	81,8%
Poland	946	1 284	1 690	2 1 2 0	50,0%	56,1%	56,0%	57,0%
Hungary	1 179	1 572	2 192	2 473	62,3%	68,7%	72,7%	66,4%
Austria	1 892	2289	3 017	3 722	100,0%	100,0%	100,0%	100,0%

Source: Author's compilation by Maddison [12].

Prior to the Second World War, East Central Europe had increasingly got into the sphere of interest of the Nazi Germany both from a political and economic point of view. The Western powers did not and could not prevent this increase in influence. Hence the several decade-long peaceful development of East Central Europe came to a halt again. These countries drifted again into a new global war, which brought them the squandering of war economies and their subsequent collapse.

Only minor territorial changes took place during the period between the two World Wars due to the limited time-span. Predominantly the modified borders and the protectionist economic policy influenced the changes in the territorial structure. In the case of Poland the integration of the previously unevenly developed regions took place, while in the territory of the erstwhile Monarchy the process of disintegration started to emerge. In all the states the economic importance of the new capitals and regional seats increased, while the role of peripheric and borderline settlements seemed to diminish. The main reasons for the change in territorial disparities are the substantially modified dimension of the countries, the Great Depression and the preparation for the war. The most important economic centre which emerged during this period was Gdynia in Poland and the central industrial region.



Graph 3: The model of spatial structure in interwar period. Source: Author's compilation.

The age of the emergence and decay of state socialism

The peace treaties concluding the Second World War more or less restored the "status quo ante bellum" in the western and central parts of Europe. Nonetheless, it was a fundamental change compared to the previous situation that the Soviet Union acquired the possibility of organising the economy and politics of the eastern countries. The Russians dominated the region for nearly half a century until the end of the 1980s. By this time the economic reserves of the "Eastern bloc" had been completely depleted which was accompanied by the collapse of the Soviet Union.

Following the often violent and illegal acquisition of the control over the political systems of East Central Europe, the Communist economic system was established in these countries. In compliance with the political-economic ideology, the transformation of the state into an industrial-agricultural economy was encouraged with a special focus on heavy-industry. Industrial development and military economy was enforced in the 1950s. As a result of this, in every country the share of the industry increased in the national income and in the workforce. Regions already having industrial capacity, industrial traditions and the necessary resources (coal, ores etc.) were at an advantage.

Enyedi Gy. [13] focuses on the characteristics and inequalities of the East Central European socialist economy in the 1970s in a detailed study. According to his work the disparities within the countries and among the countries were substantial. The eight East Central European states fell into three categories as far as the levels of development and inequality were concerned. The first category included the German Democratic Republic and Czechoslovakia with the highest level of development and the most equal territorial structure. The second, intermediary category included Poland and Hungary, while the Balkan countries were the least developed countries with the least equal territorial structure. Enyedi Gy. pointed out that there was a strong relationship between economic development and spatialeconomic levelling, moreover the economic structure was strongly linked to the level of the economy and the structure of the sector. The lack of microeconomic balance was also expressed in the lack of spatial balance. He pointed out that the rapid and intensive industrialisation characteristic of the era could cause imbalances, since industrial activities were forced to be located in several traditionally agricultural areas, which upset the structure of the settlement and the work-force. Nevertheless spatial imbalances will be mitigated over time, due to the fact that the created production unit will be more and more imbedded in the local economy, will use its resources and will foster the settlement of the service sector in parallel. Yet -according to the author- one should not overestimate these mechanisms. Enyedi Gy. reiterated that in the socialist countries -compared to the capitalist countries- greater efforts were made towards the achievement of a balanced territorial structure, despite the fact that the developed countries also contributed substantial financial resources for this objective. In the case of Czechoslovakia the most important regional disparity existed between the two allied states (i.e.: Slovakia and the Czech Republic) which, unfortunately overshadowed other existing disparities and their solutions (e.g.: disparities between Czechoslovakia and Moravia or within Slovakia). It is true that by the development of the Slovakian parts, predominantly by the settlement of industries, substantial efforts were made towards the mitigation of differences on a national level, which in turn alleviated the inequalities within Slovakia. In an international comparison Czechoslovakia (besides the GDR) had the most balanced economic spatial structure in the region. In contrast, Poland was characterised by a strongly polarised economic structure, despite the fact that the achievement of a balanced spatial structure was a clear priority of the Polish territorial policy. The reason for this: after the Second World War, the newly attached parts of the country had to be integrated. In the 1960s Poland managed to achieve that the six most developed voivodships' (Katowice, Krakow, Lódz, Poznań, Warsaw, Wroclaw) share in the GNP decreased.

In the case of Hungary the issue of regional imbalances can be narrowed down to the relationship between Budapest and the country [13]. Efforts after the Second World War managed to reduce the disparity between these two spatial units, but could not eliminate it completely. Budapest's share in the industrial production dwindled, since many production sites were transferred to other parts of the country. The countryside also benefited from the rapid agricultural development which increased the average income. At this time inequalities were not reflected by the different income levels but rather by the different life conditions.

Dusek's [14] statement is closely related to this issue. According to him during the 1960s and 1970s, the degree of spatial inequality was less in the states of East Central Europe than in the similarly developed market economies, i.e.: the socialist countries seemingly had a more balanced regional spatial structure. Therefore it is not surprising that after the change of the political system a large-scale differentiation took place, these countries adapted to the international trend of the previously described Williamson curve. The diminishing income levels arising from the crisis were coupled with significantly higher disparities.

The Soviet-type location of industry which emerged together with the political and economic influence of the Soviet Union brought about significant changes in the social and economic spatial structure. The most important characteristics of the Soviet-type location of industry were: the state regulated production and economic relations, the strengthening urbanisation, the decreasing role of the western areas coupled with the increasing role of the eastern areas, raw materials as the most important location factor of the industry as opposed to the market. Therefore the main reason for the changing disparities was the change of the traditional geographic orientation of the economy and the Soviet-type location factors. New industrial centres appeared such as Leninváros and Sztálinváros in Hungary; Litvinov and Krompachy in Czechoslovakia and Nowa Huta in Poland [15].



Graph 4: The model of spatial structure in the age of emergence of state socialism. *Source: Author's compilation.*

The socialist economic structure described above was characteristic of East Central Europe at the turn of the 1960s-1970s. Two important factors modified this structure in the coming years and decades: the spill over effect of the 1973 and 1979 oil crises and an intensifying political resistance in the socialist bloc (especially in Poland in1968, in 1970, in 1976 and in 1981).

Table 5: The annual average GDP growth by countries before and after of the Oil Crisis	S
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(%	′o).	
Name	1950-73	1974-90
Czechoslovakia	3,08%	1,12%
Poland	3,60%	0,85%
Hungary	3,45%	-0,35%
East Central	3,79%	0,51%
European average		1.11. 510

Source: Author's compilation by Maddison [12].

The large-scale, multi-step hike in the price of oil had several negative effects for the East Central European countries poorly endowed with hydrocarbons. First and foremost it increased the import price of energy resources, hence disturbing the relative balance of foreign trade and the state budget. In most cases the socialist countries financed these imbalances by external credits (main lenders: IMF, West-Germany). Especially the indebtedness of Hungary and Poland increased a great deal. At the same time the crises contributed to the contraction of external markets. As a result of the diminishing revenues due to recession, the Western European countries reduced their import from the countries of the Eastern bloc, which in turn meant a further drop in their revenues. It is important to note that while in the Western countries the significant increase in the price of oil in the medium and long term led to savings, the formation of reserves and a more efficient use of resources, in the COMECON countries this increase in intensity did not take place. (due to the slower, more gradual increase of the Soviet oil prices). The socialist industry's hunger for energy and raw materials and its inefficiency remained, yet the financial and market pressure brought about by the crises strengthened a demand for the reforms.

Yet the lack of reforms and their inefficiency led to the ageing of production technologies and infrastructure, to the lack and inefficiency of the service sector, thus to a diminishing competitiveness and indebtedness (except for Czechoslovakia as far as indebtedness is concerned). As a consequence, between the Eastern and Western parts of Europe disparities in economic performance and the standard of living further widened.

Name	GDPpc (int. \$ on 1990 prices)			GDPpc (West Europe=100%)			
	1950	1973	1990	1950	1973	1990	
Czechoslovakia	3501	7041	8517	69,84%	57,91%	50,48%	
Poland	2447	5340	5115	48,81%	43,92%	30,32%	
Hungary	2480	5596	6471	49,47%	46,02%	38,35%	
East European average	2120	4985	5437	42,29%	41,00%	32,22%	
West European average	5013	12159	16872	100,00%	100,00%	100,00%	

Table 6: Absolute and relative position of East Central European countries by level of
development.

Source: Author's compilation by Maddison [12].

Illés I. [16] based on the dynamics of the national and regional economy divided the "short" twentieth century into two completely different parts. The first part lasts for 40 years from the early 1920s until the early 1960s, in which period one can observe the closing-up of Central and South-Eastern European states, which was in many cases accompanied by an increase in regional differences. From the second half of the 1960s, the economy of these countries starts to fall behind accompanied by the mitigation of regional differences. Nemes Nagy J. [5] - following the footsteps of Enyedi Gy.- used data from a later period; he examined figures from Central Europe (East Central Europe) from the late 1970s and early 1980s. His work focused on the following group of socialist countries: Albania, Bulgaria, Czechoslovakia, Yugoslavia, Poland, Hungary, the GDR and Romania.

After calculating an average for these countries, he divided the countries into ten categories. Based on the development level of the 236 "counties", the distribution of the region's population of 130 million showed an asymmetric, lognormal shape. Two-fifths of the population lived in a highly developed area (25% above the average), one-third of the population lived in an area with average development, while the rest, approx. one quarter of the population lived in backward areas (25% lower than the average).

By examining the territorial structure of the region the author explored some fundamental relationships. The economic development decreased on a Northwest-Southeast axis. The author concluded that national borders did not alter fundamentally the above described logic in territorial structure. Based on their level of development, he identified some groups of counties. E.g.: a North-eastern Polish "cluster" with low development figures and the geographically dispersed yet clearly identifiable group of highly-developed big cities. These zones existed like islands in an underdeveloped environment.

Nemes Nagy J. also focused on the changes of the 1980s and he concluded that the regional rankings did not change except for some Polish regions which fell back as a result of the social and economic crisis in Poland.

The decline of state socialism was brought about by the depleting resources of the political and economic order, which was partly the result of an unfavourable international and national political climate. This period's impact on spatial structure was the alleviation of development inequalities. The reasons behind this levelling were the following: attenuation in the impact of state mechanisms, stagnating urbanisation, reforms with low intensity. As a consequence new centres and concentrations did not emerge.



Graph 5: The model of spatial structure in the age of the decay of state socialism.

Source: Author's compilation.

The age of transition and reorientation

The collapse of the political and economic system of the "Eastern bloc" was unexpected both in its speed and in its scale. By the mid 1990s the slow economic decline of the East Central European countries had accelerated to a dramatic level. These economic depressions can be compared to the biggest ones of the 20th century. Despite the large-scale economic downturn - thanks to the collapse of the political systems in parallel- the reorientation of the East Central European region to the west began.

The changes started in 1989, the modification of the geopolitical situation, the process of democratisation, the change in the property system and the structural change in the economy did not leave the spatial structure of these countries unchanged. The earlier neglected Western regions which had been labelled previously as "uncertain" were rehabilitated by virtue of the proximity of German and Austrian markets. As a result, the significant westward shift of economic centres could be observed. At the same time the eastern parts favoured during socialism seemed to be losing their role. In the following period the prospects of capital regions were the brightest in the entire zone thanks to their favourable geographic situation, economic potential, ability to attract capital and their cultural heritage. The diminishing role of agriculture in the labour market and in the national economy is a threat to the inner peripheric and eastern (southern) regions [17].

Thus, the more industrialised, more urbanised regions endowed with better infrastructure could put up with the challenges caused by the new circumstances more easily. The adaptability of the regions was fundamentally determined by the diversity of the economy, the degree of socioeconomic development and capital and innovation endowment [18].

The central regions, the Western regions and some Polish industrial centres and ports were able to react more rapidly to the changes in circumstances thanks to their more diversified workforce and industry. Regions with a more concentrated, monostructural manufacturing and employment structure suffered the greatest shock at the beginning of transition. In the Czech Republic and in Slovakia the decline of the highly specialised industry was the most severe problem. According to the above-mentioned phenomena the following regional classification can be drawn up:

- the leaders of transition (capital regions and other centres);
- newly arrived (returning) regions (western regions);
- losers (old industrial regions);

• undeveloped peripheries (Eastern agricultural regions).

The period of transition was accompanied by substantially increasing spatial imbalances which can be explained by the withdrawal of the state from the economy, the strong appearance of market regulators, the strengthening of disurbanisation processes and politicaleconomic reorientation. These processes reinforced the role of Western and central regions, while resulted in a declining geopolitical situation for the Eastern ones. The main reason for the intensification of disparities is the rapidly and dramatically altered political-economic situation.

Graph 6: The model of spatial structure in the age of transition and reorientation.



Source: Author's compilation.

Conclusion

The Friedmannian and Williamsonian periods have been clearly identifiable during the last one and a half century of the East Central European economic development. A number of internal and external incidents however significantly have influenced or rather deformed the lengths and effects of the intervals.

The capitalist development and the industrialisation, which began in the second half of the 19th century, lasted fundamentally till the end of the Second World War. Although the peace treaties concluding the First World War modified the economic, politic conditions to the greatest extent in the centre of Europe. The multiplication of borders, the increase of their dividing function, as well as the nationalism and protectionism pursued by the governments during the interwar period disrupted the former, traditional economic relations and spatial structure.

The Soviet expansion after Second World War made an even larger impression on the spatial distribution of economic activities. The Soviet economic policy, which deviates from the capitalist in many respects, brought new characteristics and east orientation to the East Central European states. Since the 1960s the effects of this policy continuously weakened till the 1980s, when it ended.

Thereafter the reintegration and globalisation of East Central Europe began under the conditions of capitalism, market and competition. The transition has had twofold effect and resulted rising extent of inequalities. Some regions have performed well, i.e. showed rapid economic growth and convergence; others have stagnated or lagged behind.

With the comparison I intended to set the effects of transition of the last two decades into historical perspective. Accordingly I consider the transition period unique due to its rapidity and dimension. Just the ages of modernisation and the emergence of state socialism have

resulted such significant changes in spatial structure of economy of East Central Europe as the transition in the last decades.

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