# CONVERGING ON DIVERGENCE: THE POLITICAL ECONOMY OF UNEVEN REGIONAL DEVELOPMENT IN EAST CENTRAL EUROPE (1990-2014)

By
Gergő Medve-Bálint

Doctoral Dissertation submitted to the Doctoral School of Political Science, Public Policy and International Relations

Central European University

In partial fulfillment of the requirements for the degree of Doctor of Philosophy in Political Science

Supervisor: Professor Béla Greskovits

Word count: 79,323

Budapest, Hungary

November 2014

## ABSTRACT

By focusing on investment and regional development policies, this work explores some of the key transnational and domestic regulatory and political determinants of uneven regional development in East Central Europe (ECE) since the early 1990s. It argues that contrary to the original objectives, transnational regulatory convergence in these two policy fields has reinforced rather than mitigated internal economic disparities in the Eastern members of the European Union (EU). The project emphasizes the role of the complex interactions between the EU, multinational investors and central governments in determining uneven territorial development in a gradually converging regulatory environment. In this respect, it challenges the propositions of those mainstream theories that attribute the presence of spatial divergence in capitalist economies merely to the regional diversity in endowments.

The research extends to the four Visegrad countries (V4), which, while structurally rather similar to each other, introduced different investment and regional development policies in the 1990s, only to later converge on European rules as a consequence of regulatory integration within the EU. The implications of these mechanisms for regional disparities are demonstrated on two different outcomes. On the one hand, the analysis finds that subsidized foreign direct investment (FDI) has primarily entered the relatively well-developed NUTS 3 regions while leaving the most backward areas virtually void of FDI. On the other hand, this work brings ample empirical evidence in support of the argument that the spatial distribution of the EU's Structural Funds failed to reduce inter-regional disparities but contributed to the rise in intra-regional inequality.

The reason for these puzzling outcomes rests in the uniform application of EU regulations to the Visegrad as well as to other ECE countries. Instead of differentiating among the regions based on their internal developmental positions, the EU applied a European benchmark when setting both the regional state aid ceilings and the criteria for fund eligibility. Compared to EU standards, all the ECE regions qualify as backward thus neither state aid limits nor the criteria for receiving EU funds distinguished sufficiently among the more prosperous and the less advanced regions. This regulatory gap generated an unequal competition which proved advantageous for the more developed regions both in terms of securing foreign investments and EU funds.

Regarding FDI, the level playing field in regional state aid ceilings increased the already superior bargaining position of transnational companies (TNCs) over central governments, while the latter were being engaged in a fierce investment competition. In the end, TNCs managed to play off these states against each other and maximized their benefits by entering the most prosperous regions with the best endowments while also obtaining generous investment incentives for their projects. In terms of securing EU funds, uniform eligibility placed the more developed regions and localities in a better position relative to the backward ones. At the same time, the centralized fund management systems in ECE allowed the incumbents to allocate funds according to current political interests which did not necessarily supply the least prosperous regions and localities with more development grants.

## ACKNOWLEDGMENTS

Well before the completion of this work I was thinking about what to write in the acknowledgments. The long and challenging process of dissertation writing is now over and I am unable to properly express my feelings of gratitude and appreciation for all the tremendous professional and personal support that I have received during these years. I have learned that one of the most important things in the world is to be surrounded with loving and caring people – I feel truly blessed that there are so many of them in my life.

I would like to extend my utmost gratitude to my supervisor, Béla Greskovits, whose extraordinary professional support, deep commitment to and continued engagement with my project and enduring patience provided the most solid professional as well as personal background I could have ever wished for. He placed trust in me even at times when I was about to lose faith in myself. Without his thorough, critical, yet always positive, inspiring and encouraging feedback I would have not come this far.

I would also like to thank the students and faculty of the Political Economy Research Group (PERG) at Central European University, which is an outstanding community that has provided a stimulating intellectual and a very helpful, comforting and friendly social environment which has greatly facilitated my work. I especially want to thank Magdalena Bernaciak, Dorothee Bohle, Anil Duman, Achim Kemmerling, Lucia Mytna-Kureková, Kristin Nickel Makszin, Andrej Nosko, Katerina Svickova, Vera Šćepanović, and Sanja Tepavcevic for the help that I received from them at various stages of my project.

I am also grateful to László Bruszt, Erin Jenne, and Wade Jacoby who gave me constructive, thought-provoking feedback at the initial phase of my research. I would as well like to thank Zsolt Boda for treating my dissertation as a priority over making progress with our joint projects. I would also like to express my appreciation to Sara Svensson, with whom I worked together on a former project and whose work ethic, determination and discipline I admire. I am equally thankful to Michał Kotnarowski, who assisted me in obtaining Polish electoral data. Last but not least, I thank Gergely Romsics who inspired me to engage in research and pursue an academic career.

My friends from the non-academic world have been equally supportive over these years and I am truly indebted to them for their patience and care. Many special thanks to Karina, who, from the very beginning, has been a kind and symphatizing witness to the plenty of twists and turns that I have experienced during these years. I am truly grateful to Zsófi for her care, patience and emotional support and for being so kind that she never complained about those countless hours that I had to devote to research instead of spending precious time with her.

Without any doubts, to whom I owe the most are my parents. *Köszönöm Nektek a rengeteg törődést, gondoskodást és szeretetet, amivel elhalmoztatok és amellyel olyan kiegyensúlyozott, nyugodt családi hátteret teremtettetek, amely támaszt és fogódzót nyújt nekem bajban és sikerben, bánatban és örömben egyaránt!*

# DECLARATION

I hereby declare that no parts of this dissertation have been accepted for any other degrees in any other institutions. This dissertation contains no materials previously written and/or published by another person, except where appropriate acknowledgment is made in the form of bibliographical reference.

Gergő Medve-Bálint

27 November 2014

# LIST OF TABLES

# LIST OF FIGURES

## TABLE OF CONTENTS

# INTRODUCTION

Taking a train ride from Budapest through Prague to Berlin and from there to Warsaw catches the traveller's eyes. It is not only the picturesque landscape that is appealing but also the sharp contrast between how economic success abides side by side with poverty and decline. Densely populated, thriving zones with high-tech industries lie in the vicinity of abandoned, dilapidated areas. Within just few hours, all the vices and virtues of capitalist development roll on stage in front of the observer: the rails pass by growing, prosperous places which are followed by those less fortunate that have fallen victim to the profound socio-economic changes of the last decades.

Internal regional disparities in economic development are high and have long been on the rise in East Central Europe (ECE).[1] This is accompanied by a generally lower standard of living relative to the most advanced Western European countries. While ECE's lagging behind the West is the looming legacy of communist dictatorships, the growing economic segmentation of these societies, which is vividly exposed in a spatial dimension, is the product of market economy. A handful of ECE regions have managed to establish strong links with and become embedded into global markets which has ensured their economic catch-up and sustained prosperity. At the same time, most of the regions have been unable to reproduce those success stories and have become locked into a trajectory that is taking them further away from the core.

Most scholars working in the discipline of economic geography consider the spatially divisive character of economic development as a common attribute of capitalism and an inevitable price to pay for marketization. All the dominant theories of regional development share the view that tearing down barriers to trade and stimulating the free flow of capital and labour generate economic imbalances across countries and regions: a few places will become privileged locations of production whereas the rest may face considerably slower growth and an eventually widening developmental gap between them and the leading regions. Unless

[1] This work refers to East Central Europe as the group of those eleven countries that recently gained membership in the European Union (Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia).

trickle-down effects from the core to the periphery materialize, territorial inequalities[2] remain persistent. From this perspective there is nothing puzzling in the pattern of uneven regional development in East Central Europe because the laws of capitalist development apply everywhere without exception.

However, what makes the above approaches empirically incomplete at best and conceptually shallow at worst is that they too narrowly focus on purely economic factors in explaining the spatial consequences of the free market. They tend to portray the economy as if it was operating in isolation from the domestic and transnational political and institutional context. While they certainly deserve credit for enriching our understanding of the spatial consequences of the capitalist markets, the picture that they offer remains bare in that it misses important contextual dimensions that influence economic processes. These shortcomings of the dominant theoretical approaches are even more striking in the case of East Central Europe.

After the collapse of the communist regimes, ECE countries faced multiple challenges which they had to address with no delay. First, the simultaneous task of laying the foundations of democracy and an effective market economy on the ruins of state socialism required notable efforts from the political and economic elites and the societies alike. Second, the structural transformation and integration of the national economies into the European and global markets seemed an equally daunting exercise. At the same time, both the state-building and the market-making attempts were assisted from abroad. International actors such as the IMF, the World Bank, the NATO as well as the European Union (EU) actively shaped domestic developments.

Among the various transnational forces, the EU has exerted the greatest influence on ECE. In the early years of transition it provided limited yet still sizeable financial and technical help for central governments. Its leverage over East Central Europe significantly increased when the post-socialist countries applied for EU membership. Asymmetric power relations and conditionality characterized this new phase of EU-ECE relationships because the EU posed mandatory legal and institutional requirements for the applicants as a condition of accession.

[2] The terms of regional disparity, territorial inequality, uneven regional development, and spatial divergence are used interchangeably. They all refer to the phenomenon of cross-regional developmental gaps between the most advanced and the backward areas.

The European regulations covered virtually all the main policy fields ranging from agriculture through company law to competition policy and from transport through taxation to social and regional policy. In short, East Central Europe had to engage in a process of transnational regulatory integration which required convergence on transnational norms and rules that deeply affected the national economies.

An investigation into the determinants of uneven regional development in ECE therefore has to account for the transnational regulatory context and its subsequent consequences for regional disparities. From this point of view it is puzzling that most scholarly works find this dimension irrelevant or at best downplay its role in shaping territorial inequalities. This also brings a misleading message that institutions and regulatory interventions do not matter which is rather ironic in light of the fact that most advanced market economies, including the EU itself, routinely adopt measures with the goal of influencing regional development and also allocate substantial financial resources for this purpose. In order to better comprehend why territorial disparities have increased over the last quarter of a century in ECE, it is necessary to reach beyond the plainly economic perspectives and turn to the toolkit of political economy and examine the interactions between the transnational and the domestic political sphere and their impact on the regional level.

Accordingly, this work seeks to explore how transnational regulatory integration in East Central Europe has affected regional development and the subsequent rise in regional disparities after the change of regime. It argues that regulatory convergence on EU laws has contributed to spatial divergence in economic activity which, in turn, led to rising territorial inequality. More specifically, the implementation of EU laws in investment and regional development policy, which are those policy fields that exert the most direct influence on spatial development, have created a level playing field for both the advanced and the lagging behind regions which has reinforced the already advantageous position of the prosperous areas. Besides the involvement of the EU, this mechanism also required certain structural determinants and the agency of other transnational and domestic actors.

In the case of investment policy, EU state aid rules did not sufficiently differentiate between the relatively more and the less developed regions within ECE. Although the EU's competition policy prohibits targeted state aid, it makes an exception in those cases when the investment is carried out in backward locations. However, all the ECE regions are backward

compared to the EU average thus the EU set the highest possible ceiling of investment subsidies in most of them. This regulatory gap involved that foreign investors, which according to all accounts of uneven regional development have been one of the main contributors to rising disparities, were entitled to nearly the same level of benefits in every region. The intensive competition for foreign capital across ECE further strengthened the investors' bargaining position towards central governments which were trying to minimize the risk of losing much wanted investment projects thus offered generous state aid and the best locations for prospective investors. This has ensured that the majority of subsidized foreign capital has consistently entered the already prosperous areas, which is in striking contrast with the original policy goals.

A similar process has characterized the spatial distribution of the EU's regional development funds. This is because the regional fund eligibility criteria resembled the logic applied in the case of the state aid ceilings. Given that all the ECE regions are backward compared to EU standards, they qualified for the highest level of support. As a consequence, funds have been uniformly available both for the relatively rich and the poor regions which has produced two different domestic dynamics. On the one hand, universal fund eligibility generated internal competition for the funds which benefited those regions that had higher absorption capacity and greater own resources. These were typically the more developed areas. On the other hand, central governments have enjoyed a high degree of freedom in allocating the funds which has allowed for political manipulation and vote-seeking. The incumbents followed their perceived political interest while dispensing the external resources. In the end, these domestic dynamics resulted in the paradoxical outcome that on average, the prosperous places benefited more from the funds than the backward ones.



The above mechanisms are analyzed in detail in the four Visegrad countries (V4). They demonstrate almost identical paths in that their transition from command to market economy began at the same time and they have been exposed to the same transnational influences for an equally long period. Furthermore, they all adopted an embedded neoliberal model of capitalism which tries to accommodate the needs of foreign investors yet it also aims to compensate for the societal losses of marketization. In this respect, the issue of rising regional disparities is expected to have gained high political salience in the V4 compared to those post-socialist countries where counterbalancing measures were launched rather by default than by design. However, the Visegrad countries show important initial differences with respect to the

two policy fields under scrutiny. In the 1990s they took different stances both in terms of their investment and regional development policies only to eventually converge on EU regulations a decade later. These country cases therefore offer an excellent opportunity to explore how transnational regulatory integration has triggered similar domestic dynamics even in the case of different starting positions.

Chapter 1 sets the stage for the analysis in that it critically reviews the mainstream regional development theories and highlights their shortcomings regarding the lack of attention paid to transnational and domestic institutional and political factors in shaping territorial inequalities. Furthermore, it also identifies theoretical and empirical gaps in the literature that discusses patterns of regional development in ECE. Based on these observations, the chapter defines the key concepts and develops the main argument further while it also elaborates on the case selection and the methodology.

The following two chapters analyze regulatory convergence in investment policy in the Visegrad countries and demonstrate how this process has affected location decisions of foreign investors. First, Chapter 2 explores the complex interactions between the three key players (the central governments, the transnational investors and the EU) which have determined the changes in this policy field and shows why in the 1990s but especially in the 2000s domestic circumstances were highly beneficial for foreign investors. Next, Chapter 3 analyzes the location patterns of foreign investment projects and reveals that most of the subsidized large investments have been carried out in the more developed Visegrad regions thereby contributing to rising regional disparities.

The last two empirical chapters focus on regional development policies. Chapter 4 introduces the different initial approaches in this policy field and then goes on to discuss how the EU's transformative influence has elevated regional policy on the top of the domestic political agendas and how it has produced institutional arrangements which contradict both the EU's main regional policy principles and its declared developmental goals. Chapter 5 investigates the regional distribution of the EU funds in the Visegrad countries since accession and by incorporating both the regional and the local level it conducts a detailed analysis of fund allocation in Poland and Hungary. The chapter finds strong evidence for the simultaneous presence of politically and economically driven fund allocation mechanisms. While the economic logic benefits richer localities, the political factor may produce opposite outcomes

depending on the nature of regional and local political ties to the central governments. All things considered, the evidence suggests that the distribution of EU funds have strengthened intra-regional disparities while failed to reduce inter-regional inequality. The study concludes with discussing the limitations of this research while it also recapitulates the main findings and their implications for potential further inquiries.

# CHAPTER 1

## TRANSNATIONAL REGULATORY INTEGRATION AND UNEVEN REGIONAL DEVELOPMENT IN EAST CENTRAL EUROPE: AN UNEXPLORED LINK

### 1.1 A critical review of regional development theories

Why do some regions grow faster than others and why are there income disparities across continents, countries, regions and localities? The study of uneven development is complex and challenging because of the almost unlimited number of factors that could potentially contribute to developmental differences between spatial units, be they countries, regions or cities. Questions about the nature of growth and development and about the causes of disparities across various territorial scales have long been on the agenda of social scientists. Notwithstanding differences in theoretical perspectives, assumptions and methodologies, scholars have sought to answer questions such as "[w]hat are the forces that cause per capita income to converge or diverge, and under what conditions do they operate?" (Storper 2011a p. 334).

Economic theories that address regional growth and development can be classified into two large groups (Capello 2009). Location theories (industrial districts, cumulative causation, growth pole, geographical clustering) deal with economic mechanisms that distribute activities across space, for instance those that determine the location choices of firms and households. The second group consists of regional growth and development theories (neo-classical growth and trade theory, endogenous growth theory, new economic geography) that are intrinsically macroeconomic but have microeconomic foundations. There is also a third group of theoretical approaches (Marxist theories, evolutionary economic geography, and growth machine theory) that emphasize the role of non-economic factors in regional development thus they represent alternative frameworks.[3]

[3] Appendix A1.1 offers an overview of the main assumptions and propositions of the different groups of regional development theories.

While all of the above approaches focus on the spatial aspects of economic growth and the territorial distribution of income, a sharp methodological and epistemological divide separates those theories that seek to identify uniform patterns across cases and build parsimonious mathematical models from those that focus on local specificities, peculiarities and stress the unique developmental trajectory of localities. These fundamental differences have mostly prevented a fruitful dialogue across the economic and non-economic lines of inquiry even though some limited cross-fertilization has taken place among them.

### *1.1.1 Location theories*

Early location theorists reflected on the vast empirical evidence about the spatial concentration of economic activity and uneven territorial development, although they did not rely on mathematical models to explain the phenomenon. Alfred Marshall (1920), one of the pioneers of these approaches, studied the emergence of *industrial districts* and suggested that agglomeration effects (externalities) were responsible for the concentration of economic agents in a given location. He argued that in such places firms benefitted from a large pool of labour with specialized expertise and know-how and the existence of an enabling social climate (‘*milieu*’) that generated technological and knowledge spillovers (Combes et al. 2008). These positive externalities would then attract new agents hence they reinforce the already existing locational advantages.

Inspired by Marshall’s ideas, François Perroux (1950) introduced the concept of *growth poles* which refer to the core industries of regional economies. He argued that development policies should concentrate investment on a specific sector (the growth pole) even at the expense of other segments of the economy as the expansion of the core industry will create linkages to related sectors and benefits will diffuse to the whole economy over time (Stimson et al. 2006). Albert Hirschman (1958) put forward similar ideas by arguing that markets are imperfect and price mechanisms are often distorted by externalities and economies of scale. He claimed that deviations from the equilibrium were not corrected by counter effects but generated a circular cumulative process of growth and decline. As a consequence, highly interdependent leading and backward regions would emerge. However, he also argued that “the forces of concentration (‘polarization’) will trickle down from the core to the periphery at national, regional and global levels” (Power 2003 p. 78).

In his theory of *cumulative causation*, Gunnar Myrdal (1957) contended that due to distorted price mechanisms, externalities and economies of scale, development nodes would attract capital, skills and knowledge and accumulate competitive advantage over other locations. This would prevent the backward areas from developing their own capacity to develop and prosper. Myrdal concluded that the unrestrained movement of market forces, unless counterbalancing measures were introduced, would generate virtuous and vicious circles of development and backwardness, leading to persistent regional disparities.

Drawing on Marshall's ideas, Porter (1990) suggested that *geographic clustering* of economic activity was advantageous for national competitiveness. He claimed that domestic rivalry among firms stimulated innovation and prepared them for competing in global markets. Once economic activity is geographically concentrated, it amplifies the effect of domestic rivalry and also assists investments into specialized infrastructure. In addition, such geographic clusters allow for the quick flow of information and innovation among local businesses which as well enhances their competitiveness. Location theories thus share a common feature in predicting spatially uneven economic activity and the rise of regional disparities. Contrary to these propositions, early neoclassical models suggested gradual convergence in regional income levels.

### *1.1.2 Neoclassical growth and trade theory*

The *neo-classical trade theory* builds on the Hekscher-Ohlin-Samuelson theorem which demonstrates why comparative advantages arise if certain, rather unrealistic conditions hold.[4] If two regions trade two commodities with each other and in region A labour whereas in region B capital is abundant, then region A will specialize in the production of the labour-intensive good while region B will produce the capital-intensive one. Samuelson (1953) showed that once the regions engage in free trade, then in both of them the demand for their products rises which also leads to an increased demand for capital and labour. This raises the relative price of labour in the labour-abundant and the relative price of capital in the capital-

[4] The assumptions are the following: there are only two regions and two factors of production (capital and labour), the two regions have the same production function with constant returns to scale and apply the same technology, markets are perfectly competitive with zero transportation costs, factors of production do not move across borders but are mobile within the regions.

abundant region. In the end, free trade (even if factors are immobile) will equalize both the relative and the absolute prices of capital and labour. The theorem thus expects interregional convergence in prices and income over time.

The *neo-classical growth theory* reaches similar conclusions but on different grounds. The source of the theory is the Solow-Swan model (Solow 1956; Swan 1956) which makes strong predictions about the flow of production factors, capital and labour within a national economy. The core concept of the theory is diminishing returns to scale which means that by increasing the unit of production (capital or labour) the marginal productivity of the factor progressively decreases. This implies that producing an additional item will cost more than the previous one. Assuming perfect competition, full capital and labour mobility, identical production functions and single homogenous commodities (Demko 1984), diminishing returns to scale leads to converging growth rates and declining initial inter-regional differences within a country. Maier describes the process in the following way: "[w]hen capital is relatively scarce in region I as compared to region II the rate of interest will be higher in region I, the wage rate higher in region II. When the production factors are mobile, capital will flow from region II to region I and labor in the opposite direction until the marginal products are equated between the regions" (2001 p. 114).

It is important to note that the neoclassical growth theory does not account for trade because it models growth within a single economy. Therefore, in this case convergence in per capita income levels occur not through trade but through factor mobility and diminishing returns to scale (Dawkins 2003). Another implication of the Solow-Swan model is that if production takes place in an environment where the models' assumptions prevail, then producers have to minimize transport costs. In order to reach consumers at the lowest possible cost, industry would have to spread out, which would result in many small plants supplying local markets (Henderson et al. 2001). This would also involve convergence of regional income levels.



### *1.1.3 Augmented neoclassical approaches: endogenous growth theory and new economic geography*

Besides posing unrealistic assumptions about economic production, the original neoclassical models consider neither spatial structures nor historical events as factors influencing regional

development (Stimson et al. 2006). Moreover, they also treat technological progress exogenous and do not account for the differences in the level of human capital, although both are important sources of growth. The strength of both theories lies in their simplicity and parsimony but in their pure form they are unable to explain divergent economic development, which the location theories predict.

Reflecting on the above shortcomings and also as a response to location theories, Romer (1986) and Lucas (1988) developed the neoclassical growth model further and laid the foundations of *new endogenous growth theory*, which incorporates increasing returns and economies of scale into its mathematical models and considers technological change and human capital endogenous to growth. By introducing increasing returns to the production function, the theory allows for a spatially cumulative concentration of capital, labour and economic output. It also suggests that investment in physical and human capital is the major driver of economic growth as they generate such spillover effects that increase both capital and labour productivity (Martin and Sunley 1998).

In endogenous growth theory the major sources of cumulative causation are the agglomeration effects arising from economies of scale (increasing returns) and the presence of externalities across economic units such as knowledge spillovers, which had already appeared in Marshall's work. If agglomeration effects are present, then the concentration of economic activities in a single region will become a self-reinforcing mechanism because this region will persistently attract new investments. This mechanism is different from the one predicted by the neoclassical growth model which maintains that production could take place at an arbitrarily small scale without loss of efficiency. This would lead to an even distribution of production across space so that transport costs could be entirely avoided.

However, as Maier (2001 pp. 116–118) shows, if only one industry has a production function that exhibits increasing returns to scale (by increasing output the average cost of production declines or to put it differently, an additional unit of input increases output by more than one unit), then this industry could produce more efficiently if it concentrated production in one or few locations. But if the entire production is concentrated in a single place, then the industry would need more labour input than is available in the neighbourhood, so it would have to attract additional workers who would either need to migrate or commute. This is possible if the producer offers higher wages for compensating the costs of commuting or for the higher

property prices that emerge due to the increasing population density at the location of production. In these circumstances the consumers, which also include related companies and industries that purchase the product of the agglomerated sector, would have to overcome the spatial distance. Those who are located closer to the site of production face low transportation costs and because of this they gain advantage over the others located further away. This represents another impetus for locating close to the agglomerated sector. It seems that "[a]gglomeration effects in one industry are sufficient for producing spatial structure and spatial differentiation" thus the relationship between agglomeration effects and space is mutually constitutive: "[o]n the one hand, agglomeration effects lead to spatially differentiated structure of the economy, while on the other hand spatial structure produces agglomeration effects" (Maier 2001 p. 117).

The theory of *new economic geography* developed by Paul Krugman (1991, 1993) builds on the neo-classical trade theory but has been inspired by early location theories. Krugman argues that if trade becomes integrated on a broad scale, then market size increases which generates the same agglomeration effects as discussed by the new endogenous growth theory. On the one hand, the free flow of goods favours those producers that produce at the lowest prices. This triggers regional specialization in those industries and products for which the local endowment of production factors is the most beneficial (Combes et al. 2008) or, in other words, where comparative advantages of production exist (Venables 2003). On the other hand, in an integrated market the mobility of factors is also greater than previously. In this case income levels between areas capable of attracting capital and labour and those where production factors are scarce will experience further divergence in their income levels.

Krugman's new economic geography has similar implications as the new endogenous growth theory in terms of the spatial structure of the economy, although it does not include the role of technology and the potential of spillovers into its model as a source of growth. It claims that market interactions involving economies of scale will naturally lead to spatial concentration and dispersion of economic activities (McCann and van Oort 2009). This is because firms facing scale economies would choose to serve the market by producing in a single location with a reasonably big local demand for the products. This is most likely to be found where large-scale industrial activity had already been present.

Krugman argues that the geographical structure of the economy depends on a few key parameters such as transportation costs, economies of scale (in the form of increasing returns) and factor mobility: "[in]creasing returns at the plant level created an incentive for geographical concentration of production of any given good; transport costs created an incentive to locate plants close to large markets (and large sources of goods from other plants); but the location decisions of producers themselves determined the location of large markets. Under the right circumstances, this could produce a circular causation in which concentrating production fed on itself" (Krugman 2011 p. 4). Krugmans's approach was well-received by mainstream economists. It represents major progress over previous theories in that it combines transport costs, increasing returns to scale and imperfect competition in a general equilibrium framework in which the location of both supply and demand is endogenized (Garretsen and Martin 2010; Storper 2011a).

### *1.1.4 Alternative approaches*

The modelling tradition of endogenous growth theory and new economic geography has been severely criticized because they treat regions as highly idealized and abstract geometric spaces which fails to capture the significance of both the historical and the socio-institutional context and embeddedness of regional economic development. Increasing returns imply that regional development becomes highly path-dependent: "temporary conditions and shocks, as well as historical 'accidents', may have permanent effects as patterns of specialization, of economic success or economic backwardness become 'locked-in' through external and self-reinforcing effects" (Martin and Sunley 1998 p. 211). However, according to critiques, the sophisticated mathematical models are unable to reveal "why some regional economies become locked into development paths that lose dynamism, whilst other regional economies seem able to avoid this danger and in effect are able to 'reinvent' themselves through successive new paths or phases of development" (Martin and Sunley 2006 p. 395).

Scholars taking the perspective of *evolutionary economic geography* (EEG) emphasize that spatial development is "the result of unique, context-driven, place-specific combinations of forces that [...] can be neither modelled nor even subject to large-scale causal inquiry" (Storper 2011a p. 341). Instead of using quantitative models, economic geographers are case-oriented, apply qualitative methods, and argue that economic processes have to be considered

in relation to the socio-economic and cultural processes with which they co-evolve (Sheppard 2011). The evolutionary approach to regional development therefore focuses on the role of history in producing patterns of uneven development which is understood as "an outcome of largely contingent, yet path dependent, historical processes" (Boschma and Frenken 2011 p. 296). This line of argumentation also suggests that small initial regional differences such as historical chance or even self-fulfilling expectations may determine which location will become the place of agglomeration (Henderson et al. 2001).

Similar to evolutionary economic geography, *Marxist theories of development* contend that regional growth differentials are not the results of impersonal market forces. However, instead of referring to historical specificities and unique regional characteristics as determinants of uneven development, Marxist scholars argue that persistent territorial inequalities are the outcome of the purposive actions of the capitalist class that uses the state as a coercive instrument. In this sense, disparities are not only natural attributes of capitalism but spatial differentiation becomes crucial for maintaining the system.

One of the leading theoreticians of the field, David Harvey claims that capital accumulation, which is a necessary condition for the survival of capitalism, is the prime cause of uneven development. He asserts that capital is "the product of a perverse and limiting logic arising out of the institutional arrangements constructed at the behest of a disparate group of people called capitalists" (Harvey 2005 p. 62). Profit-oriented capitalists centralize capital into large production units and refrain from investing in deprived areas. This is a key element of profit accumulation because it ensures the exploitation of the working class: a potential relocation and the closure of the plant would result in job losses. The threat of relocation thus allows for keeping wages low (Richardson 1984) but in the long run it does not prevent the profit-seeking capitalist to look for alternative, more profitable locations.

According to Harvey (2001 pp. 252–254), capitalist penetration to non-capitalist societies (for instance through trade integration) creates dependencies by transforming those relatively self-sufficient economies into specialized and dependent units producing for exports, by which old capitalists accumulate trade surpluses. In his 'see-saw' theory of uneven development Smith (1990) considers the mobility of capital as a never-ending process which creates and re-creates regional disparities by always preferring those locations that offer the highest profits on investments: "capital attempts to see-saw from a developed to an underdeveloped area,

then at a later point back to the first area which is by now underdeveloped, and so forth" (1990 p. 149).

The Marxist theory highlights that in capitalist systems regional disparities may have structural origins which are then realized through the agency of capital-owners. The *growth machine theory* places more emphasis on political agency. In his seminal work, Molotch (1976) argues that local political and economic elites compete with other land-based elites to possess growth-inducing resources and investments. Regional growth is thus portrayed as a unifying interest of local elites and it stands as an imperative to pursue growth strategies by engaging in local political coalitions (growth coalitions). The theory thus considers regional growth as a consequence of local political organization but it fails to identify how exactly those coalitions affect regional economic outcomes (Dawkins 2003 p. 146). This is the reason why it can be considered a theory of local politics rather than regional development.

### *1.1.5 Gaps in the mainstream theories*

New economic geography and new endogenous growth theory (which are mostly applied by geographical economists), and the evolutionary approaches belong to the current mainstream theories of regional development. Even though both evolutionary economic geographers and geographical economists "try to answer the same fundamental spatial questions [...] this does not mean that they necessarily share a common body of theory or a common epistemology" (Garretsen and Martin 2011 p. 207). While economists consider regions as idealized and abstract geometric spaces and focus on the general patterns, evolutionary economic geographers argue that it is difficult to conceptualize space in that simplistic way and instead they emphasize the particular features such as cultural, social and historical accounts of regional development and use a discursive mode of argumentation. As a consequence, "[s]erious discussion of each other's work has been extremely thin on the ground and most contributions to the debate read like a case of a 'dialogue of the deaf' […] or of 'two disciplines ignoring each other'" (Garretsen and Martin 2010 p. 130).

However, both lines of inquiry would greatly benefit from incorporating some insights from each other because the strength of one approach is the weakness of the other. Economic geographers attribute a central role to production and suggest that firms make places develop

(Storper 2011b). Yet, they fail to capture the non-economic sources of those local advantages that lead to agglomeration (Amin 1999). Models of new economic geography and endogenous growth theory explain the location of agglomeration economies with initial regional differences as 'accidents of history' and do not inquire about the structural determinants of the origins of those advantages (Storper 2011a). As a consequence, these theories are decontextualized, and concerned with deriving 'within-model' analytical results (Garretsen and Martin 2010 p. 150). However, while evolutionary economic geographers consider the formal modelling approaches too simplistic and reductionist in explaining spatial economic development, they are "too much in love with messiness" (Storper 2011b p. 14) and fail to identify common, generalizable patterns of development.

Besides the above shortcomings of mainstream theories there are other major concerns raised against them. On the one hand, their fundamental weakness lies in the fact that they almost exclusively focus on the economic and market mechanisms and ignore or at best downplay the role of politics and political institutions. This is puzzling because a broad range of policies intend to influence regional growth and the location of production thus "ignoring this dimension is seen as a substantial weakness of existing theory" (Dawkins 2003 p. 146). These aspects gained greater significance with the global financial and economic crisis of 2007-2008 because none of the mainstream theories were able to address its causes (Harvey 2011). For this reason, some authors even refer to the contemporary crisis of dominant regional development theories (Hadjimichalis and Hudson 2014).

As Hadjimichalis (2006) argues, those approaches that emphasize the role of non-economic factors in regional development provide a depoliticized view of politics and rely on a de-economized use of economics. The apolitical treatment of development involves a misleading conceptualization that "social interactions are conflict-free and can mobilize resources for the benefit of the entire community" (2006 p. 697). The neglect of the state and its institutions is particularly striking in this respect. Furthermore, both the economic geographers and the geographical economists leave key exogenous forces undiscussed and unexamined as they entirely ignore the regulatory role of the nation state and transnational integration regimes which have a non-negligible impact on development. Because development trajectories at the country as well as at the regional level are the outcomes of both internal and external factors, the study of the state and transnational institutions need to be restored in regional development research as "agents of active intervention" (Hadjimichalis and Hudson 2014 p.

215). To put it differently, future theorizing of regional development requires a re-discovery of political economy (MacKinnon et al. 2009) with a particular focus on the interactions between transnational and domestic institutions.

## 1.2 Theoretical and empirical gaps in the literature analyzing regional development in East Central Europe

Studies on regional development in East Central Europe suffer from all the major shortcomings discussed above. On the one hand, they rarely take political factors as determinants of spatial economic processes into account. On the other hand, they fail to analyze regional trajectories within a framework that would attribute an active role to the European Union and the nation state. These limitations of the existing scholarly works also compromise the understanding of those mechanisms that have generated rising regional disparities in this part of Europe in the last quarter of a century.

More specifically, most studies acknowledge the validity of the implications of new economic geography in that the opening of markets through trade liberalization and the integration process to the European Union have triggered diverging economic development. A recent econometric analysis showed that economic integration has been a "spatially selective process favouring relatively advanced regions in western Europe, while at the same time having an adverse impact on weaker and peripheral regions in the south and east" (Petrakos et al. 2011 p. 12). Indeed, in terms of per capita GDP expressed in purchasing power parity, more than four-fifth of the East Central Europen NUTS 2 regions[5] got further away from the EU average between 1995 and 2006 (Polyánszky 2012).

However, common explanations to rising disparities in ECE do not go beyond the mere statement that economic factors, especially investment decisions and location choices of foreign investors mattered a great deal. Virtually all the works that have analyzed regional disparities in East Central Europe established a connection between regional development and foreign investment inflows. These studies find that the metropolitan regions and the more

[5] The NUTS classification is the territorial statistical nomenclature of the European Union (Nomenclature of Territorial Units of Statistics). It was introduced in the early 1980s in order to gain comparable regional statistical data across the EU.

urbanized, industrialized western areas have been the main targets of foreign investors, while most of the eastern, less urbanized regions proved unable to create linkages to the global economy through FDI (Antalóczy and Sass 2005; Brown et al. 2007; Chidlow et al. 2009; Davey 2003; Dunford and Smith 2000; Fink 2006; Gorzelak 1996; Pavlínek 2004; Petrakos 2001; Sadler 2003; Sokol 2001; Wisniewski 2005). As the most recent comparative analysis concludes, "the metropolisation of CEE countries is the key process responsible for the widening of disparities in the development levels between the best developed and the worst developed regions of individual countries" (Smętkowski 2013 p. 1551).

One of the main concerns with the above arguments is that they offer a de-politicized and to a great extent also de-institutionalized account of uneven regional development and do not explore its contextual determinants. This is problematic both from a theoretical and an empirical point of view. First, it has long been established that the capitalist economy is not isolated from its socio-economic and political context but is embedded into it (Polanyi 1944). This also implies that "the economy has to be considered as a set of institutions and institutionalizing processes" (Amin and Thrift 1994 p. 259). It follows that even though institutions are unlikely to be the sole 'cause' of geographically uneven development, they enable, constrain, and refract economic development in spatially differentiated ways" (Martin 2002 p. 79). Notwithstanding the persuasive arguments for incorporating institutions in the study of regional economic development, they "had surprisingly little impact within economic geography" (Gertler 2010 p. 3).

Consequently, with respect to regional development in Eastern Europe, the transnational regulatory influence of the European Union and its complex interactions with the state have to be explored in greater detail than it has been done so far. From an institutionalist perspective, the state is a central actor in regional development because it filters external influences and initiates and executes those policies that directly or indirectly shape regional trajectories. The role of the state becomes even more pronounced in the case of East Central Europe because of the historical circumstances of the last couple of decades. The collapse of the communist regimes and their centrally planned economic systems involved that these countries faced the task of building democracy and capitalism simultaneously. To manage this challenging process, the state and its institutions had to be re-established and strengthened in order to create functioning markets where they had not existed before (Bruszt and Stark 2003). This market-making process required an active state. As Bandelj argues, "it is the involvement of

the postsocialist states rather than their withdrawal from the economy that facilitated marketization of Central and Eastern Europe in the first decade after 1989" (Bandelj 2008 p. 25).

At the same time, the rebuilding of the market and the state has been substantially exposed to an external regulatory influence represented by the European Union (Bruszt 2002). The EU is an example for transnational integration regimes, which are "institutionalized arrangements involving public and private actors from two or more countries in creating and governing the common rules of economic interactions in transnational markets" (Bruszt and McDermott 2012 p. 746). The EU thus aims at "bringing convergence in norms, rules and policies between sectors and across countries" (Bruszt and McDermott 2014 p. 7) with which it substantially influences domestic socio-economic and institutional conditions and developmental outcomes.

In this process of transnational regulatory integration, the East Central European countries have been the rule takers in that the EU required thorough institutional changes from them as a condition of membership. In fact, the EU attempted to actively shape domestic institutions and regulatory frameworks already in the early 1990s but it gained greater leverage through the conditionality of accession (see for instance Jacoby 2004, 2010; Schimmelfennig and Sedelmeier 2005; Vachudova 2005). The EU's regulatory requirements were manifested in the mandatory adoption and implementation of the more than 80,000 pages of the body of the European law. To undertake this mission, the EU provided substantial assistance for ECE countries, which included massive pre- and post-accession transfers that financed institution-building and development projects. Thus both in its scope and depth and also in terms of the committed external resources the regulatory integration of East Central Europe into the European Union has been a globally unparalleled process (Bruszt and McDermott 2012).

Evidently, these transnational influences had domestic developmental consequences as well. While assessing the validity of Cardoso and Faletto's dependent development paradigm, Bruszt and Greskovits (2009) argue that after the collapse of the state socialist systems, East Central European countries had to rely on the advanced market economies and on transnational companies in their efforts of economic catch-up. However, they did not have to walk this road alone because they were allowed to enter the most integrated economic and political community of the world, the European Union. This has also determined their level of

integration into the global market but as the authors contend, the developmental impact of transnational and domestic factors on these economies can only be captured through their articulation in domestic political competition and conflict.

These considerations bear high relevance for the study of regional development in East Central Europe. First, they suggest that domestic institutional and policy frameworks inspired by transnational regulatory integration may have directly or indirectly shaped regional economic trajectories. Second, these conditions may have also influenced investment decisions of transnational companies which, as the literature has already convincingly demonstrated, crucially determined regional pathways. Third, the circumstances of East Central Europe's integration to the EU also call for assessing the role of external developmental assistance and its potential impact on domestic territorial inequalities. To date, none of these aspects have been examined in a comprehensive way in the academic literature. This is a major shortcoming of the current approaches which needs to be addressed. This work is the first attempt to fill this gap.

## 1.3 Research question and the argument

Based on the above, the study aims to elaborate on how transnational regulatory integration in East Central Europe influenced internal regional disparities. This line of inquiry involves the analysis of the interactions among relevant transnational and domestic actors and the subsequent consequences for territorial inequalities. Because regulatory integration is a process that has both a spatial and a temporal dimension, it is important to consider the whole period during which transnational influences, although to varying degrees, were present in ECE. For this reason, the time frame of the research covers the nearly two and a half decades (1990-2014) following the change of regime.

The study argues that East Central Europe's regulatory convergence on transnational (EU) rules has created a level playing field for both the prosperous and the laggard regions which, contrary to common expectations, reinforced rather than mitigated regional disparities. This is demonstrated on two policy fields which exert the greatest impact on regional economic trajectories and at the same time have been substantially exposed to transnational regulatory

influences. On the one hand, investment policy, which may rely on instruments such as the creation of industrial and free trade zones, fiscal subsidies and tax allowances, is capable of influencing the location decision of investors (Henderson et al. 2001), which, in turn, determine regional pathways. On the other hand, regional development policy, which consists of a broad set of redistributive measures initiated on the purpose of enhancing regional growth and reducing territorial inequalities, represents a direct intervention into spatial economic processes. Moreover, through the EU's pre- and, most importantly, post-accession development funds, this policy dimension has gained considerable political and economic significance over the last decade.

Through the analysis of regulatory convergence in these policy fields, the study aims to examine their impact on two separate outcomes which contribute to regional prosperity and decline. First, it is assessed how the various regulatory interventions of domestic investment policies under growing transnational (EU) influence affected the location choices of foreign investors. Second, the territorial distribution of the EU's development funds will highlight how external financial assistance has contributed to the process of regional catch-up or falling behind. Table 1.1 provides an overview of the key mechanisms that the subsequent chapters will discuss in detail.

The two policy fields resemble each other in that similar mechanisms have characterized their evolution from the early 1990s through the most recent period. In the first years of transition ECE governments adopted different measures both with respect to investment- and regional development policies. However, as the EU's regulatory influence was growing on these countries they had to adopt the mandatory elements of the relevant European laws in both policy fields. In fact, a single common aspect of regulatory convergence combined with some structural features has triggered those processes that led to the strengthening instead of the reduction in regional disparities. The key element is a specific attribute of the level playing field that the EU regulations created: neither the transnationally determined state aid rules of investment policy nor the regional eligibility criteria for EU funds differentiated sufficiently among the relatively more developed and the less advanced regions.

The lack of regional differentiation became relevant in the two policy fields for different reasons. In the case of investment policy, the EU set uniformly high state aid ceilings in each ECE region which implied that virtually in all of them the legally offered fiscal and financial

support for new investments climbed well above the western European levels. State aid ceilings thus hardly distinguished among the regions according to their relative level of development. At the same time, competition for foreign investments across East Central Europe heavily intensified since the late 1990s. This was especialy advantageous for greenfield investors because they were flexible in choosing their investment sites. The combined effect of cross-country investment competition and the uniformly high level of state aid across ECE regions enabled foreign investors to locate in the most prosperous areas which, compared to the backward regions, offered similarly high levels of state aid but better investment opportunities.

**Table 1.1: Summary of the main argument**

| **Policy field** | | **Investment policy** | **Regional development policy** |
|---|---|---|---|
| **Observed outcome** | | location decision of foreign investors | regional distribution of development funds |
| growing regulatory influence of the EU | **1990s** | different domestic policy approaches<br><br>typical channel of foreign investment through individual privatization deals between multinational investors and central governments<br>⇩<br>most investments enter into existing facilities which are primarily located in more developed regions | different domestic policy approaches<br><br>second-rank policy field<br>⇩<br>few domestic funds committed to regional development<br>⇩<br>negligible impact on spatial processes |
| | **2000s** | intensifying investment competition<br>+<br>state aid ceilings hardly differentiate between more and less developed regions<br>⇩<br>greenfield foreign investors gain high bargaining power over central governments ⇩<br><br>subsidized greenfield foreign investments mostly enter prosperous regions | vast external development transfers<br>+<br>uniform fund eligibility of regions<br>⇩<br>high degree of domestic political discretion in fund allocation<br>+<br>competition for the same funds between advanced and lagging behind regions ⇩<br><br>funds tend to flow to more prosperous regions and localities |
| | | | increasing domestic regulatory convergence |

The universal fund eligibility of ECE regions produced a similar outcome but through a different mechanism. On the one hand, both the more and the less developed regions were competing for the same pool of funds. This has generated a race among unequals: relative to backward areas, the private and public entities in the more prosperous regions possessed greater own resources which was a fundamental requirement for preparing and submitting project applications. In short, the more advanced areas were better equipped to take advantage of the funds thus they secured a greater share of EU development assistance than the poorer regions. On the other hand, universal fund eligibility also increased the political latitude of central governments in allocating the EU resources. This has generated opportunities for vote-seeking, which, depending on the political interest of the incumbent, either resulted in more or less funds spent in backward regions.

It is important to note that transnational regulatory convergence in the two policy fields alone may not have generated uneven regional development. Other factors, especially the agency of foreign investors and central governments played a decisive role, too. In this respect, transnational regulatory integration created an institutional framework which facilitated those processes that contributed to the rise in regional disparities. However, portraying regulatory convergence merely as a structural element or a constraining factor would be misleading because this would assume a passive role for the European Union. In reality, the EU has been an active player in shaping domestic institutional outcomes in ECE. This is the reason why this work consistently stresses the significance of the complex interactions between transnational and domestic actors in determining uneven regional development.

## 1.4 Reserch design

### *1.4.1 Core concepts*

Analyzing the consequences of transnational regulatory integration on regional disparities in East Central Europe requires appropriate definitions for the key concepts. Although the literature offers a broad range of terms for what constitutes a region, all of them fall into one of two main traditions. On the one hand, a region may be considered as a functional economic entity (Fox and Kumar 1965; Losch 1954) which does not follow political boundaries. On the other hand, regional units may be defined as planning regions (Richardson 1979) that

correspond to political or administrative borders. The current research adopts the latter perspective and refers to regions as NUTS 3 level sub-national entities which may or may not possess decision-making authority. The choice for this definition is motivated by the fact that statistical data is available only for administrative territorial units; moreover, both investment policy and regional development policy apply to planning and not to functional regions.

Although the subsequent chapters address regional disparities indirectly through the location choices of foreign investors and the spatial distribution of development funds, it is important to define what disparity refers to. This work conceptualizes regional disparities as internal (within-country) imbalances in regional economic output measured as gross domestic product (GDP) per capita. Examining the differences in these figures reveals the degree of development gaps among the regions.

While GDP per capita is the most commonly used single indicator of economic well-being, it bears certain shortcomings. For instance, the measure does not account for the effect of commuting. This may result in inflated GDP figures for those regions where commuters represent a high share of the total workforce and an undersized value for those areas where the commuters reside (Sokol 2011 p. 8). Furthermore, variation in the number of hours worked does not appear in the GDP either (Harvie et al. 2009). In spite of these pitfalls, GDP per capita shows a strong association with a broad range of other socio-economic indicators of well-being thus it remains the best single indicator of development (Boarini et al. 2006) which justifies its use.[6]

### *1.4.2 Case selection*

The analysis compares four ECE countries, the Visegrad country group (V4), which consists of the Czech Republic, Hungary, Poland and Slovakia and their corresponding NUTS 3 regions which represent the units of observation.[7] The choice for these states has been

[6] At the NUTS 2 territorial level (for which a relatively great variety of measures are available) regional GDP per capita indeed shows a close relationship with several socio-economic indicators. Taking the 2007 figures into account, regional GDP per capita shows a significant association with the following indicators: compensation of employees per capita ($r$ = .973, $p < .01$, N = 260); unemployment rate ($r$ = -.339, $p < .01$, N = 261); total private and public research and development expenditure per capita ($r$ = .649, $p < .01$, N = 236); crude death (three-year average of 2007-2009) rate per 100,000 inhabitants ($r$ = -.429, $p < .01$, N = 245); percentage of population at risk of poverty ($r$ = -.433, $p < .01$, N = 165). *Source*: the author's own calculation based on Eurostat data.

[7] The NUTS 3 level corresponds to the county level of state administration. While in Poland the NUTS 3 level (*podregion*) serves only statistical purposes, in the other Visegrad countries it is an important administrative

motivated by the fact that they demonstrate a structured, patterned set of similarities and differences that are highly relevant for investigating the effects of transnational regulatory convergence. Regarding the similarities, these countries inherited comparable economic legacies from state-socialism (see for instance Bohle and Greskovits 2007, 2012; Myant and Drahokoupil 2011) and their transition from command to market economy also began at the same time. Furthermore, they have been exposed to the transnational influences of the European Union for an equally long time period: they all gained candidate status in 1997 and entered the EU in 2004.

In spite of the common features, the V4 shows important initial differences in the two policy fields that are in the focus of this research. In the 1990s, the central governments of the Visegrad countries followed different investment and regional development policies and also adopted dissimilar territorial administrative systems (Bachtler and Downes 2000; Bandelj 2008; Drahokoupil 2009a; O'Dwyer 2006; Vachudova 2005). While Hungary was open to foreign investments early on, the other three countries, although to different degrees, were more reluctant to let foreign capital freely enter their economy. Moreover, unlike the Czech and Slovak Republics, Hungary and to a lower extent Poland introduced various regional development schemes in the early years of transition. Thus at least initially, there was enough variation in the domestic institutional and policy environment to expect differences in the trends of regional development.

As Table 1.2 shows, the level of internal regional disparities greatly varied across the V4 in the early 1990s. Yet, all the three metrics of territorial inequality displayed in Table 1.2 demonstrate that each country has experienced a sustained rise in disparities over the last two decades. Even the Czech Republic, which was and as well remained the least unequal country among the Visegrad states, saw a sharp increase in inequality compared to the initial situation. The figures thus suggest a common pattern of widening developmental gaps between the advanced and the backward Visegrad regions.



level (positioned between the local governments and the central government in the territorial hierarchy) with some decision-making authority. Currently, there are 66 NUTS 3 regions in Poland, 20 in Hungary, 8 in Slovakia and 14 in the Czech Republic. Until 31 December 2007, there were 45 NUTS 3 regions in Poland but on 1 January 2008 a new system of 66 regions was introduced. Most of the data presented in this work refers to the current Polish system but exceptions are duly indicated.

**Table 1.2: Evolution of regional disparities (NUTS 3 level) in the Visegrad countries**

| | Theil-index[a] | | | | | Ratio of highest and lowest regional GDP per capita in EUR | | | | | Dispersion of regional GDP per capita in EUR[b] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **1995** | **1999** | **2003** | **2007** | **2011** | **1995** | **1999** | **2003** | **2007** | **2011** | **1995** | **1999** | **2003** | **2007** | **2011** |
| Czech Republic | 2.73 | 4.75 | 6.27 | 6.78 | 6.66 | 2.03 | 2.45 | 2.72 | 2.87 | 2.95 | 0.17 | 0.22 | 0.25 | 0.26 | 0.26 |
| Hungary | 7.60 | 10.08 | 10.39 | 12.34 | 13.18 | 3.11 | 3.68 | 3.79 | 4.64 | 4.91 | 0.24 | 0.31 | 0.31 | 0.33 | 0.34 |
| Poland | 4.98[c] | 9.21[d] | 9.28 | 10.42 | 10.60 | 5.13[c] | 4.98[d] | 5.02 | 5.32 | 5.72 | 0.32[c] | 0.31[d] | 0.31 | 0.32 | 0.34 |
| Slovakia | 7.59 | 7.43 | 8.40 | 10.60 | 11.40 | 3.34 | 3.53 | 3.71 | 4.29 | 4.22 | 0.36 | 0.36 | 0.38 | 0.43 | 0.44 |

Source: the author's own calculation based on data from national statistical offices and the Eurostat
[a] please consult Appendix A1.2 for a detailed description of this measure
[b] the figures represent the unweighted standard deviation of logarithmic GDP per capita (Sala-i-Martin 1996)
[c] the figure was calculated based on the system of 45 NUTS 3 regions
[d] the figure refers to year 2000

From the perspective of transnational influences, this phenomenon is particularly intriguing. On the one hand, as Bohle and Greskovits (2012) argue, by the end of the 1990s these states had converged on what the authors refer to as embedded neoliberal capitalism, which embraces the free market but at the same time also nurtures compensatory policies which aim to protect those segments of the society that become victims of marketization. On the other hand, over the last two decades the role of foreign capital inflows has gained high salience in the domestic economies. In order to facilitate economic catch-up and integration to the global markets, the V4 has relied on a hyper-integrationist development strategy (Šćepanović 2013) in which foreign investors play such a crucial role that some authors refer to these countries as dependent market economies (Nölke and Vliegenthart 2009).

While the Visegrad states have been exposed to the same transnational (EU) regulatory influences as the other East Central European countries, they were also simultaneously trying to serve the needs of foreign investors and compensate for the economic imbalances emerging in a market economy. Considering these features of the V4 regimes, one would expect that the issue of increasing internal developmental gaps would become a politically salient one and would be addressed through various redistributive measures. To that end, one would also expect that in an embedded neoliberal system attempts at reducing regional disparities would occur by design unlike in those purely neoliberal ECE regimes where the introduction of compensatory measures did not receive priority at all. Given this domestic context, examining how transnational regulatory integration has affected both the pro-market and the protective

measures with respect to regional development and investigating how regulatory convergence has played out in these domestic circumstances become particularly compelling.

### *1.4.3 Data and methodology*

The supply of comparable regional level data for East Central Europe is low even though Eurostat, the European Union's statistical office, has been seeking to standardize and harmonize data collection in the member states. These efforts have paid off to the extent that basic sub-national economic indicators are now available for a fairly long time period. These have been utilized for the purpose of this work but beyond the Eurostat's database, several other sources form the basis of the empirical material. Most importantly, the study draws on data from a broad range of international (UNCTAD, World Bank, WIIW, European Commission State Aid Register) and domestic (national statistical offices, central banks, national election offices, investment promotion agencies, implementing agencies of Structural Funds programmes) institutions.

Given the relatively large number of the units of observation (NUTS 3 regions in the Visegrad countries), this work adopts a quantitative analytical strategy. In this vein, both the location choices of foreign investors and the regional distribution of EU funds are analyzed through the application of simple (OLS and logistic regression) and more advanced (negative binomial regression, hierarchical linear models, multilevel Tobit models) econometric techniques. However, the analysis extends beyond a purely quantitative perspective in that it also heavily draws on qualitative data. Thus in the case of investment policy, the empirical results of the statistical models are also complemented with interviews conducted with leading representatives of domestic investment promotion agencies and the analysis of several major investment projects based on a review of secondary sources (media reports, European Commission state aid decisions). Similarly, the two chapters on regional development policy also build on the analysis of qualitative material (national policy documents, EU reports and regulations on Structural Funds).

# CHAPTER 2

## ALL ROADS LEAD TO RISING REGIONAL DISPARITIES? THE TRANSNATIONAL AND THE DOMESTIC POLITICAL CONTEXT OF INVESTMENT POLICIES AND FDI IN THE VISEGRAD COUNTRIES[8]

### 2.1 Introduction

The mainstream literature on regional development reviewed in the previous chapter suggests that in a market economy factors of production such as labour and capital tend to concentrate in certain preferred areas. In such circumstances regional disparities emerge naturally. A further implication is that foreign capital inflows to the domestic economy will also accumulate in privileged locations leaving other areas virtually void of FDI. Foreign investors are inclined to select those regions that offer better factor endowments in terms of infrastructure, human capital, population density, the level of urbanization and geographical position. The preferred regions are usually already prosperous not least because of the presence of foreign investors. As foreign investments generate production and stimulate the local economy, unequal spatial distribution of FDI leads to increasing regional disparities. In short, rich regions tend to become richer and poor ones are unable to catch up with them.

The above model is clear, straightforward and seems to leave little to argue with. However, it is too simple in that it concentrates exclusively on the role of regional endowments and does not account for the broad economic and political context, in which capital flows are taking place. It considers neither transnational nor domestic political influences on FDI. What is more, it implicitly claims that they are irrelevant for the spatial distribution of foreign investments because regional endowments will always determine them. Even if the political context would not play a role in FDI, this model does not offer an explanation for why this would be the case. Especially in the context of post-communist transition, which involved several, at times contradicting regulatory interventions on capital flows, explaining uneven regional development by merely referring to the spatially divisive character of FDI offers an incomplete picture.



[8] This chapter partially relies on Medve-Bálint (2014)

This chapter takes the analysis to a different level and incorporates transnational and domestic political effects on foreign direct investment and its spatial distribution. On the one hand, it aims to offer a novel approach to explaining FDI flows to East Central Europe in that it places greater emphasis on transnational influences, in particular on the European Union. On the other hand, it shows that after the change of regime foreign investors enjoyed superior bargaining position over central governments, although the causes of this were different in the 1990s than in the 2000s. It was due to these factors, namely the influences of the EU and the overwhelming bargaining power of transnational investors rather than, as mainstream theories would have it, to the mere diversity of regional endowments, that more developed regions have been able to secure the bulk of FDI ever since the regime change. The chapter thus contributes to the explanations of uneven spatial distribution of foreign capital by accounting for the broader, economic and political context in a post-communist setting.

As for the 1990s, with the exception of Hungary, the other V4 countries adopted a rather restrictive approach to foreign capital. Although in this period privatization was the main source of FDI, central governments refrained from involving foreigners in the sale of state-owned assets. Yet, in those cases when state-owned firms were sold to foreigners, the external investors managed to negotiate favourable privatization deals which, at the same time, created precedents for subsequent agreements. Moreover, once the investors set foot in the domestic markets, they were able to demand further subsidies from the central governments for their plant expansions which drew other, mostly greenfield investors into the vicinity of the existing locations of production.

Most of the state-owned enterprises (SOEs) that were sold to transnational corporations in the 1990s were located in the relatively well-developed areas. This is because in the planned economies the state was the main agent of economic development and the varied spatial concentration of SOEs, which bore the mark of regional disparities, directly reflected the centrally planned and implemented industrial policies. Those regions which were privileged by state intervention accumulated considerable industrial capacity and, as a consequence, experienced relative prosperity. This is the reason why the location pattern of privatization FDI reinforced existing regional disparities.

As the European Union gained greater influence on the V4 governments, it triggered a major change in the domestic investment policies: by the end of the 1990s every Visegrad state became committed to attracting foreign capital. The radical shift occurred both because of

external pressures and domestic constraints as attempts of building "national capitalisms" failed. In addition, with the completion of privatization, the V4 economies needed further foreign capital inflows to become competitive in the international and the EU markets. In the 2000s, greenfield FDI represented the main source of foreign investments thus the structurally highly similar V4 governments became each other's rivals in competing for the same investors. Central governments thus began to introduce generous incentive schemes and engaged in a "bidding war". In order to channel the emerging investment competition according to European competition policy regulations, and also as an attempt to mitigate concerns of old EU-members about potential relocation of production from west to east, the EU had to intervene in this process.

However, the EU found itself trapped in its own rules: the V4 governments defended the incentives by referring to their expected contribution to regional development. This justification was compatible with European law therefore the EU had no choice but to endorse most of the schemes. Yet, since incentives were universally available without much territorial differentiation, they further intensified investment competition, which was beneficial for the transnational investors and the prosperous regions that were already attractive to foreign capital. This is because the fierce investment competition and the V4's dependence on foreign investments implied that multinational companies were able to play off these countries against each other: in order to please the investors, central governments had to offer the best investment locations accompanied with generous investment subsidies. As a consequence of the convergence in investment policies, most of the subsidized investments avoided the truly backward regions which became the losers of the EU-compatible investment regime. In short, converging FDI policies have contributed to divergence in regional development.

Before discussing the above arguments in more detail, the next section tests if the main proposition of the dominant economic approaches explaining uneven spatial distribution of FDI in East Central Europe holds in the Visegrad countries. More specifically, the issue is whether the location pattern of foreign investment can be explained by accounting for the differences in initial regional endowments. Although the results are affirmative, they do not reveal anything about those background mechanisms that shaped FDI inflows and influenced the location choices of foreign investors.

## 2.2 Testing the propositions of mainstream economic theories on the spatial distribution of FDI

The goal of the following analysis is to assess whether there is a link between the initial level of regional development and foreign investment activity. If this relationship holds, then even small development gaps at an early stage would lead to spatially differentiated foreign capital inflows over time, which would contribute to rising regional disparities. This is essentially what the mainstream economic theories of regional development argue.

In order to test this hypothesis, the earliest available and the most recent data has been collected for all the NUTS 3 regions of the Visegrad states. The dataset thus covers a period of eighteen years from 1995 through 2012. Five main indicators are used for the models: regional per capita GDP in 1995 and in 2012 as a proxy for the regional level of development, share of urban population in 1995 as a proxy for urbanization, number of registered job applicants per 1000 employed in 1997[9] as an indicator of unemployment and FDI stock per capita in 2012 as a measure of foreign capital penetration into the regional economy.[10] In addition, to differentiate between regions close to western Europe and those further to the East, a dummy variable indicates whether a region is bordering Austria and/or Germany.

To normalize distribution, both the GDP and FDI indicators were logarithmically transformed. In addition, to reduce potential collinearity and to calculate interpretable intercepts, the continuous independent variables were centered on their grand mean. Because the indicators of urbanization and unemployment highly correlated with the GDP variable, they were treated separately in the models. While Models 1 through 4 test whether initial levels of development and urbanization had an effect on foreign investment activity over time, Models 5 and 6 assess if higher regional level of foreign investment were also associated with higher level of development. The results are summarized in Table 2.1.

Model 1 shows that there is indeed a strong positive relationship between the levels of regional development in the mid-1990s and per capita foreign capital stock in 2012. The coefficient reveals that holding all other variables constant, a one percent increase in the initial level of per capita GDP is associated with 3.8 percent higher FDI per capita more than a decade and a half later. Among the country dummies only the Polish indicator is significant and shows a negative sign, which is not surprising because Poland has accumulated the lowest

[9] This is the earliest year for which comprehensive NUTS 3 level unemployment data are available.
[10] For a detailed description of all the variables please consult Appendix A2.1.

per capita stock of foreign capital among the V4. Compared to the others, in the Polish regions the same initial level of development is associated with lower FDI per capita in 2012. Overall, the model suggests that those regions that were wealthier in the mid-1990s attracted more foreign capital over time than the poorer ones. This effect is strong because relatively small initial differences in the level of regional development are associated with sizable differences in future FDI per capita.

However, metropolitan (or city) regions, such as Cracow, Budapest or Prague may distort this picture because they usually are (and have been) the richest regions in the Visegrad countries capable of attracting far more foreign capital than others.[11] It is thus possible that these regions drive the relationship between initial regional wealth and FDI levels thus the significant association may disappear or at least weaken if metropolitan regions are excluded from the analysis. Model 2 therefore applies the same specification as Model 1 but excludes the metropolitan regions from the observations.[12] In spite of this, the already established relationship between GDP and FDI stock remains virtually unaffected: taking only the non-metropolitan regions into account, the model shows that one percent increase in per capita GDP in 1995 is associated with 3.1 percent higher per capita FDI stock in 2012.

Model 3 includes all the regions and tests whether higher level of urbanization and lower unemployment in the mid-1990s show any association with the stock of foreign capital in 2012. The results confirm the expectations: urbanization and FDI are strongly and positively related to each other. A one percent increase in the share of urban population in 1995 is associated with 2.6 percent higher FDI per capita in 2012. Interestingly, regional unemployment in the mid-1990s also shows a significant albeit negative relationship with foreign capital stock: a one percent rise in the initial unemployment rate is related to a 0.4 percent decrease in the 2012 value of FDI per capita. The exclusion of the metropolitan regions from the calculations (Model 4) does not change the direction of these relationships but slightly decreases the significance of the unemployment variable.

Finally, Model 5 and 6 test whether per capita FDI stock in 2012 is indeed associated with higher per capita GDP in the same year. In other words, the models estimate the relationship between foreign capital penetration into a regional economy and the level of development.

[11] Metropolitan NUTS 3 regions: Bratislavsky, Budapest, Warsaw, Cracow, Łódz, Poznan, Szczeczin, Wrocław, Prague, Trójmiejski (Gdansk, Gdynia and Sopot).
[12] In all the models that exclude the metropolitan regions the continuous variables were centered on the group mean, thus on the mean value of the non-metropolitan regions.

**Table 2.1: Summary of the OLS regression models (Model 1-6)**

| | Model 1 | | Model 2[a] | | Model 3 | | Model 4[a] | | Model 5 | | Model 6[a] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | FDI per capita (2012) | | | | | | | | GDP per capita (2012)[b] | | | |
| | B | SE | B | SE | B | SE | B | SE | B | SE | B | SE |
| Intercept | 8.049*** | .188 | 7.860*** | .221 | 7.532*** | .187 | 7.328*** | .192 | 8.551*** | .048 | 8.554*** | .042 |
| GDP per capita in 1995[c] | 2.971*** | .222 | 3.144*** | .519 | | | | | | | | |
| Urban population in 1995 | | | | | .026*** | | .018** | .007 | | | | |
| Unemployment in 1997[c] | | | | | -.004*** | .002 | -.003* | .002 | | | | |
| FDI per capita in 2012 | | | | | | | | | .236*** | .026 | .161*** | .020 |
| Western region | -.173 | .187 | -.100 | .189 | .117 | .230 | .255 | .216 | .038 | .047 | .051 | .035 |
| Czech region | -.115 | .250 | -.220 | .306 | .040 | .316 | .160 | .339 | .348*** | .061 | .399*** | .037 |
| Slovak region | -.280 | .243 | -.356 | .261 | .383 | .307 | .190 | .275 | .416*** | .067 | .402*** | .051 |
| Polish region | -2.316*** | .221 | -2.322*** | .253 | -1.658*** | .228 | -1.676*** | .232 | .539*** | .068 | .406*** | .067 |
| N | 108 | | 98 | | 108 | | 98 | | 108 | | 98 | |
| F-value | 87.12*** | | 59.39*** | | 34.04*** | | 31.99*** | | 45.39*** | | 87.13*** | |
| adj. $R^2$ | .770 | | .764 | | .659 | | .621 | | .720 | | .652 | |

Unstandardized coefficients, robust standard errors. Variance inflation factor (VIF) remained below 2 for each variable in all the specifications. Figures are rounded to the third decimal.

* p < .1 ** p < .05 *** p < .01

[a] Excluding metropolitan regions

[b] 2011 values for Polish and Slovak regions

[c] 1999 values for Polish regions

Both Model 5, which includes every region, and Model 6 that excludes the metropolitan areas show that higher regional per capita FDI stock is indeed strongly and positively related to development. According to the coefficient in Model 6, a one percent increase in regional FDI stock per capita is associated with a 0.16 percent rise in per capita GDP. These results bring firm evidence for the linkage between foreign capital inflows and regional development. Moreover, the explanatory power of these rather simple models is high because as the values of R-squared reveal, they explain much of the variation in the dependent variables.

The main purpose of this exercise was to establish a connection between past levels of development, foreign investment activity and current levels of development. On the one hand, the results suggest that foreign investors preferred to enter those regions that were initially more prosperous, more urbanized and presumably offered better local endowments for businesses than the backward areas. On the other hand, FDI is strongly and positively associated with regional GDP per capita: in fact, foreign investments enhance regional development. This also confirms that location decisions of foreign investors have to a great extent contributed to rising regional disparities in the Visegrad countries.

The above findings also indicate that the behaviour of foreign investors followed an almost law-like principle: they preferred to locate in those areas where they found the most favourable local endowments. The fact that foreign investors are rational and are driven by their best interest would hardly surprise anyone. If no restrictions apply to their location choices, then they enter those regions that promise the highest returns on investment. But does this rather simplistic, firm-centered view really explain why backward regions, which did not benefit much during the decades of central planning, also became the losers of market economy? It may be the case that after the change of regime the rationality of foreign investors prevailed in East Central Europe but what about the regulatory and political context of foreign direct investment? Did governments readily accept that if more FDI enters their domestic economies internal regional disparities will increase? Were not there any attempts to influence investors' location decisions and promote backward regions? More specifically, what role did investment incentives play in this process?[13] All of these questions remain open

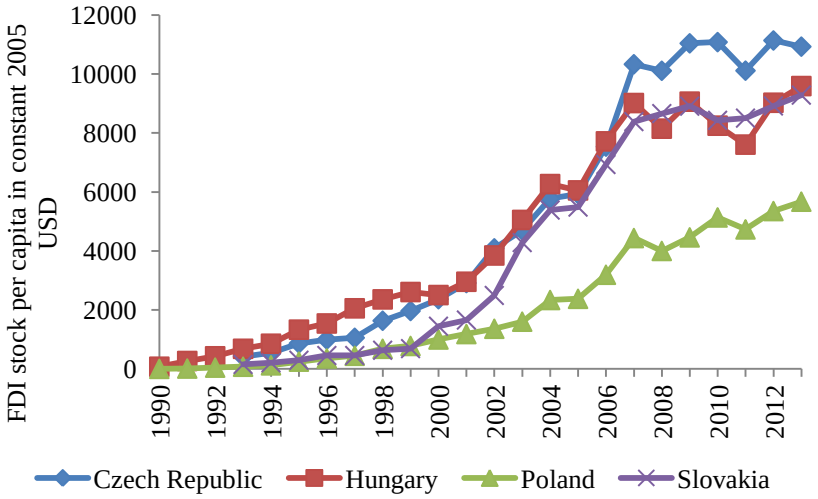
[13] Investment incentives may be fiscal or financial. Fiscal incentives are tax abatements, tax holidays, and exemptions from import duties, accelerated depreciation allowances, investment and re-investment allowances, deductions from income tax and social security contributions. The most common financial incentives come as grants, also in the form of subsidised loans and loan guarantees. Such grants may be offered for labour training, wage subsidies, or they can also be land donations or rebates on the cost of utilities. In addition, governments may as well provide subsidised infrastructure (roads, railroads, airport facilities built specifically for the investment project), which can be considered as a type of financial incentives (Oman 2000 p. 21; Cass 2007).

if one only looks at location choices from the investors' perspective. In order to be able to respond to these issues and to explain why FDI has consistently entered the more prosperous regions, we also need to understand the broader regulatory and political context.

## 2.3 Empirical gap in existing works explaining FDI inflows to the Visegrad countries

In order to reflect on the spatially divisive character of foreign investment, first it needs to be understood why FDI has become a key factor for regional development in the Visegrad countries. As Figure 2.1 reveals, FDI inflows were not only spatially but also temporally uneven since the change of regime. In the 1990s foreign capital stock was growing slowly and only in the 2000s it began to accumulate rapidly until the temporary setback at the end of the decade because of the global economic crisis. The intensifying foreign capital inflows had a profound effect on the domestic economies. By 2011, nearly half of the total production value in the V4 economies was produced by foreign controlled enterprises and almost two-third of the foreign-controlled production belonged to businesses registered in the old EU member states (EU-15).[14]

**Figure 2.1: FDI stock per capita in the Visegrad countries (1990-2013)**



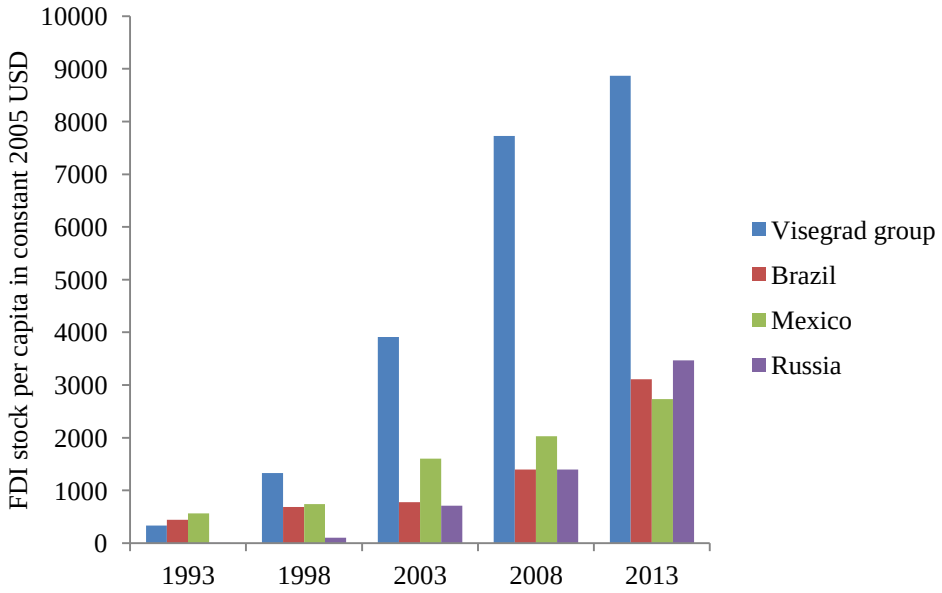

*Source*: the author's own calculation, UNCTAD

Besides offering various incentive schemes, the establishing of a national investment promotion agency complements the system of fiscal and financial incentives. The role of these agencies is to market the country and investment opportunities abroad, to target potential investors and offer services and comprehensive information for them.

[14] *Source*: the author's own calculation based on EUROSTAT FATS database. In 2011, the share of foreign controlled production from the total production value (excluding the financial sector) was 46.6 percent in the Visegrad countries and enterprises headquartered in the EU-15 were responsible for 64.3 per cent of foreign controlled production.

From a global perspective, the attractiveness of the V4 to foreign capital is even more remarkable. Figure 2.2 shows that while in the 1990s per capita FDI stock in the Visegrad states was comparable to that of other emerging markets, in the next decade the V4 took a major leap. Why did these East Central European countries become so attractive to foreign investors if well-into the transition period they showed relatively poor records of FDI? The explanation for this puzzle is highly relevant for the spatial distribution of foreign investments.

**Figure 2.2: Evolution of FDI stock per capita in the Visegrad countries and in other major emerging markets (1993-2013)**




*Source*: the author's own calculations, UNCTAD database

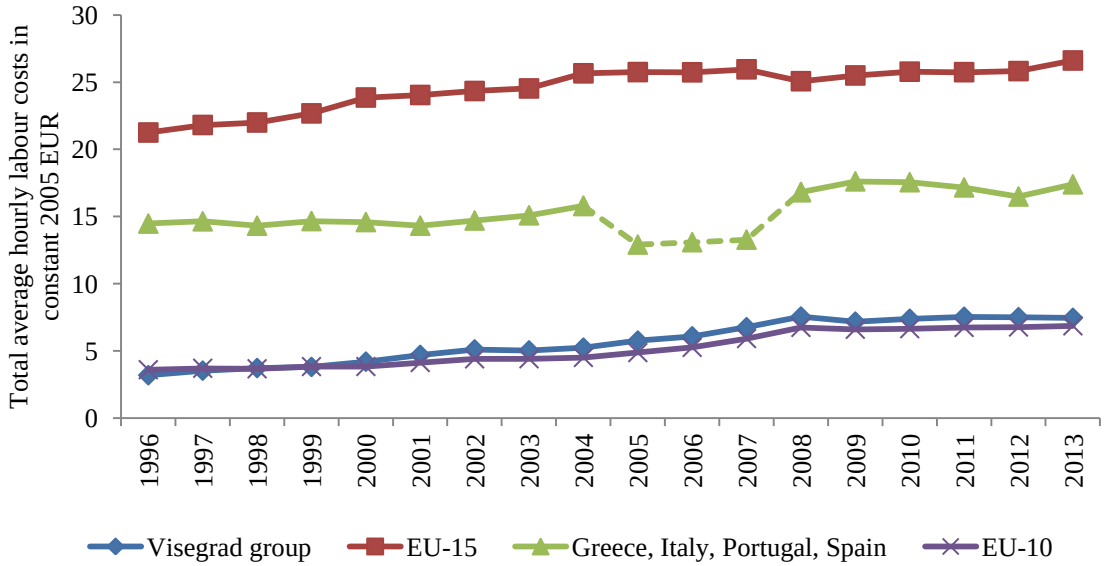
First, it needs to be demonstrated why the EU has been a key player in influencing foreign capital inflows to East Central Europe in general and to the Visegrad countries in particular. The main approaches that dominate the literature on FDI flows to ECE attribute marginal or at best passive role to the EU. The economic arguments emphasize the favourable host country characteristics and also refer to the positive effect of the EU's single market in attracting investments. Accounts that adopt the perspective of economic sociology challenge this view by arguing that the investors' behaviour are socially embedded and their location decisions are mostly determined by trade networks and cultural ties rather than objective cost-benefit calculations. These studies also stress the socializing effect of the EU in triggering investor-friendly policies in ECE. Conversely, the political economy approaches highlight the significance of the initial domestic policies towards FDI, the timing and depth of economic

reforms and the interactions between foreign investors and domestic political elites. While all of these approaches bring important dimensions to the debate about FDI inflows to ECE, they rather treat the EU as a marginal actor in shaping investment flows.

Most of the economic accounts analyzing patterns of FDI to East Central Europe found that low labour costs, the well-trained workforce and the expanding local markets attracted foreign investors to the region (see for instance Galego et al. 2004; Gauselmann et al. 2011). Bevan and Estrin (2004) drew similar conclusions but they also showed that the mere announcement of prospective EU membership had an immediate positive effect on FDI inflows. Other studies (Baldwin et al. 1997; Breuss 2002) argued that EU membership would improve risk perceptions and together with the effect of the EU's single market they would generate massive capital inflows: the "less conservative" estimates of Baldwin *et al*. predicted a 68 per cent rise in the capital stock of the new eastern European members. While Narula and Bellak (2009) stressed the positive relationship between EU membership and FDI inflows, they also argued that membership would become decreasingly important for foreign investments in an expanding EU.

On the one hand, these studies dramatically underestimated the volume of FDI inflows. As Figure 2.2 demonstrated on the Visegrad countries, their foreign capital stock nearly tripled between 1998 and 2003 and this process did not lose momentum until the outbreak of the global economic crisis. On the other hand, referring to the highly trained, cheap workforce being present in ECE ever since the transition began fails to explain the low levels of FDI in the 1990s and the sustained high flows in the next decade. From an EU-wide perspective, the over time evolution of the hourly labour costs (Figure 2.3) would suggest rather the opposite: the V4 has persistently enjoyed great labour cost advantages over the EU-15 but the gap between the Visegrad and the Mediterranean states, which can be considered as the V4's most direct competitors for investment from the old EU members, has slightly narrowed, at least until the outbreak of the 2007-2008 global economic crisis. If labour cost differences would indeed play such an important role in investment decisions, then in the 2000s we should have observed decreasing instead of increasing levels of FDI into the V4.

**Figure 2.3: Total average hourly labour costs in industry and service sectors in constant 2005 EUR (1996-2013)**[15]




*Source*: the author's own calculation, Eurostat

Challenging the above views from the perspective of economic sociology, Bandelj (2008) refers to the bounded rationality of foreign investors and argues that their investment decisions were socially embedded, mostly driven by cultural ties and social networks. She also attributes greater role to the EU in influencing FDI as she claims that it "exerted significant pressures on postsocialist states to commit to FDI in practice, not just on paper" (2008 p. 83). Yet, Bandelj (2010) considers the EU as an ideational rather than a coercive actor: she claims that the frequent interactions with liberal-minded EU elites compelled ECE decision-makers to promote foreign investments. While her framework acknowledges the EU's formative role in FDI-friendly policies, it does not follow the EU's influence beyond accession and does not provide an explanation to the sustained or rather increasing FDI flows after enlargement. Domestic commitment to foreign investments alone does not explain consistently high FDI inflows in an increasingly competitive global environment.

Among the political economy approaches, Drahokoupil's works (2009a, 2009 b) present a compelling theory of the politics of FDI to ECE. He argues that the failure of the initially inward-oriented economic policies, which limited foreign capital inflows, allowed for coalitions between transnational capital and domestic political elites to trigger policy shifts

[15] EU-10: the Baltic states, the Visegrad group, Bulgaria, Romania (data available from 2000) and Slovenia. Data are unavailable for Greece in 2004-2007 and for Italy in 2005-2007: this is what the dashed lines represent in the corresponding curve in the graph.

and place ECE economies on a foreign capital-based growth model, which led to the rise in FDI inflows. Drahokoupil downplays the role of the EU in this process as he claims that external coercion does not explain domestic policy outcomes without accounting for intervening variables such as the coalitions between foreign investors and domestic elites. In their recent contribution, which draws an informed, nuanced picture of the peculiarities of regime formation in East Central Europe, Bohle and Greskovits (2012) also emphasize the interactions between multinational companies and domestic political forces. They argue that initial structural similarities to western production profiles and the timing of reforms were responsible for the variations in FDI in the 1990s, and the established first mover advantages determined subsequent patterns of foreign investment flows into ECE. In this whole process they consider the EU merely as an external enabling factor.

Although these accounts highlight the significant influence of multinational enterprises on domestic politics, they do not explain why the adoption of FDI-friendly policies occurred almost simultaneously at the end of the 1990s and why the region as a whole has been an increasingly attractive investment location in the 2000s. Without attributing a more direct and more active role to the EU, these puzzles remain unresolved. The next section discusses the initial V4 approaches to FDI and shows how the EU's external influence triggered a change in those policies at the end of the 1990s.

## 2.4 Initial V4 approaches to foreign capital

After the change of regime, a neoliberal economic model was envisaged for transition countries, which suggested that the exposure of these states to the world market would enable them to "adopt economic structures that would lead to greater prosperity and convergence on the living standards of Western economies" (Dunford and Smith 2000 p. 170). The advocates of the neoliberal development model shared optimistic views about the likely effects of foreign investments as they maintained that the primary driver of economic development in East Central Europe would be the rapid growth in the stock of capital through massive FDI inflows. FDI was regarded as a key factor in the process of building a market economy (Pickles and Smith 2005 p. 24) and was also expected to provide a source of capital beyond the limited domestic capacities. FDI was also supposed to intensify foreign trade and economic upgrading by bringing in new technology (Bradshaw 2005). Local businesses were

as well anticipated to benefit through the spillover of technological, managerial and organizational know-how (Rugraff 2008 p. 308).

However, in the early years of transition, the governing elites of the Visegrad countries generally were unwilling to respond positively to these external calls for FDI. In the 1990s the bulk of foreign capital entered the region through privatization but most V4 governments adopted privatization schemes that restricted foreign involvement in the sale of state-owned assets. Only Hungary opened its markets to foreign investors early on, while the Czech Republic, Slovakia and Poland, although for different reasons, experimented with "national capitalisms" until the end of the 1990s: large-scale privatisation was delayed or was only open to domestic entrepreneurs, which limited the inflow of foreign capital (Bandelj 2010; Beblavy and Marcincin 2000; Bohle and Greskovits 2001; Drahokoupil 2008). Industrial and social policies aimed to protect domestic companies from competition and the labour force from rising unemployment.

In Slovakia, the government led by Vladimír Mečiar privileged company insiders and nationals in the privatization process, which excluded foreign investors from the sale of strategic monopolies (Bandelj 2010). "Under the guise of creating a national entrepreneurial business class capable of "sustaining Slovak independence", foreign as well as domestic investors were discouraged from participating in privatization deals after 1994 to the benefit of vested interests" (Vachudova 2005 pp. 51–52). The reluctance in the V4 to involve foreigners into privatization was probably also motivated by historical fears. For instance, Václav Klaus, prime minister of the Czech Republic at the time, was worried about a potentially fast takeover of the Czech economy by German investors and objected to the promotion of foreign capital (Bohle and Greskovits 2012 p. 140). With the exception of a brief period in the early 1990s, "the Czech Republic and Slovakia did not offer any incentives [to foreign investors], and the peculiar technique of privatisation practically excluded foreigners from the privatisation process" (Sass 2003 p. 16).

While at the beginning Poland was open to FDI, its policy approach changed after the first years of transition. Similar to Hungary, the country opened its doors early on to foreign investors: in 1988 an act was adopted by the Parliament that granted 3 or 6 years of tax holidays to all companies with foreign participation. In 1991 this piece of legislation was replaced by a new one that prescribed individual tax exemptions that were awarded by the

Ministry of Finance (Domański 2005). However, the Solidarity-led government was voted out in the 1993 elections and the new government led by the former communists took a different approach to foreign capital. They attempted to strengthen the emerging domestic business class, which partly reached back to the former nomenclature (Bohle and Greskovits 2001; Vachudova 2005). Following the 1993 tax reform, special incentives were no longer offered to foreigners (Klazar and Sedmihradsky 2002).

Yet, in the mid-1990s Poland introduced a spatially targeted investment incentives program, which was unique of its kind in the Visegrad group. In October 1994, the Polish Parliament passed a law on Special Economic Zones (SEZ), which offered place-specific, localized opportunities for large and medium-sized investors: firms locating in these zones received 10 years of tax exemptions and another 10 years of 50 per cent tax relief (Domański 2005; Klazar and Sedmihradsky 2002). These incentives were conditional upon a minimum investment value that was determined by the managing authority of each SEZ (Guagliano and Riela 2005). Although the benefits applied to both domestic and foreign investors, the Special Economic Zones were expected to increase foreign investment activity. By 1998, fourteen SEZs were established (Cieślik 2005). The role of these zones in shaping investors' location choices will be discussed in detail in the next chapter.

In spite of the Polish experiment with Special Economic Zones, Hungary's approach to FDI still remained unique in the Visegrad group as it was the only country that offered special treatment to foreign investors through the 1990s. It thus begs for explanation why Hungary took a different stance towards foreign investment. First, the country already had some initial experiences with foreign investors, as "the relatively liberal Hungarian trade regulations in the 1980s had provided plenty of opportunities for commercial contacts to develop" (Szanyi 1998 p. 37). Second, the decision on launching large-scale privatization to foreigners was also motivated by the record-high debt level, which the reformers did not re-negotiate with international creditors (Bohle and Greskovits 2001). The sale of state-owned assets to foreign investors involved hard currency cash receipts, which was crucial for the already declining state budget and for the debt-service. Besides involving foreigners into privatization, Hungary

offered other benefits to external investors: generous tax holidays and low corporate tax rates distinguished the country's approach from its neighbours.[16]

Nevertheless, as Szanyi (2001) observed it, the strategy of placing the country's development on attracting foreign capital had its roots already in the state socialist period: in the early 1980s the establishment of joint ventures was allowed and later on, in selected cases, even full foreign ownership of businesses was accepted by the government. Furthermore, an act on investment protection was passed by the Parliament in the 1980s, while the Company Act and the Act on the Transformation of State Enterprises (both were adopted in 1988) paved the way for large-scale privatization even before the change of regime. In this sense, the Hungarian approach to FDI in the 1990s demonstrated certain continuity with the practices of the communist leadership in the 1980s.

In sum, in the early years of transition, only Hungary attempted to systematically attract foreign investors, while the rest of the Visegrad group remained rather closed to FDI. This is consistent with the data shown earlier in Figure 2.1 – until the end of the 1990s Hungary was the regional leader in securing foreign investments while the others were lagging behind.[17] This pattern changed markedly around the turn of the millennium when the Czech Republic, Slovakia and to a smaller extent Poland began to catch up with Hungary. As it is argued below, the EU's coercive influence triggered domestic policy shifts in favour of FDI, which contributed to the steep rise in foreign capital inflows.



[16] Hungary was the first in the Visegrad group to significantly cut its corporate tax rate: in 1995 the corporate income tax was lowered to 19 per cent, which at the time was far more advantageous for businesses than the rate in the Czech Republic (41 %), Slovakia (40 %) and in Poland (40 %). In addition to the low corporate tax rate, Hungary offered a 60 percent reduction in tax liabilities for the first five years of operation to companies with at least 30 percent foreign ownership and above 500 thousand US dollars of investment (Klazar and Sedmihradsky 2002). Later, these general incentives were further refined and in certain cases companies were even entitled to 100 % tax exemption for a period of ten years (Antalóczy and Sass 2003).

[17] Even compared to the Czech Republic, which was the second most preferred target of foreign capital in the early and mid-1990s, the advantage of Hungary in terms of accumulated FDI stock was notable. In 1997, FDI stock per capita in Hungary was twice as high (2125 USD) than in the Czech Republic (1091 USD). The corresponding figures for the following year, when the Czech government introduced the incentive schemes, show a similar degree of difference (Hungary: 2420 USD; Czech Republic: 1676 USD). Because of the relatively low foreign capital inflows in this period, these differences are substantial and reflect the variation in the initial approaches to foreign investment promotion. (*Source*: UNCTAD)

## 2.5 The EU's transformative influence on FDI policies

In the early years of transition, the EU's influence on East Central Europe did not go beyond mere policy advice. As Jacoby (2006) noted, in this period the EU represented a source of inspiration for domestic policy-makers. However, as ECE demonstrated increasing commitment to European integration by applying for EU membership in the mid-1990s, the EU gained more influence over their domestic policies: the enlargement process added an externally induced regulatory dimension to transition (Bruszt 2002). The European Commission engaged in a thorough investigation of the applicants' economic, political and social background in order to assess their progress towards fulfilling the membership criteria. The country opinions, which were prepared by the Commission for the 1997 Luxembourg European Council, served as the main documents for the decision on whether an applicant would gain candidate status or not.

These documents, which echoed the neoliberal view on foreign capital and severely criticized the national capitalist approaches, urged greater foreign economic involvement in East Central Europe. In fact, they revealed that this was an essential condition of EU membership. Regarding the economic criteria and specifically the openness to foreign investors, only Hungary received positive feedback among the Visegrad group. The views expressed in the Hungarian document also summarized what the Commission expected from sustained foreign capital inflows:

> Foreign direct investment has been playing a large role in the Hungarian restructuring process, at times even contributing to the development of new industries [...] This is particularly important since FDI flows typically constitute an efficient way to transfer technology to the enterprise affected as well as to the rest of the economy through demonstration and spillover effects. FDI can also be expected to help Hungarian industry adapt to the requirements of the acquis.
>
> (Commission Opinion on Hungary's Application for Membership of the European Union, DOC/97/13, Brussels, 15th July 1997, p. 36.)

In December 1997, the country opinions gained greater political significance when the European Council decided to begin accession negotiations with only five applicants (Estonia,

Hungary, the Czech Republic, Poland and Slovenia), while the others, mostly because of their insufficient progress in democratization, were relegated to the second wave of negotiations.

Although the EU was pushing for more privatization and FDI, it lacked any specific legal instruments that could have been directly applied to the candidates. While the EU's competition law thoroughly regulates mergers, acquisitions and state aid frameworks, it evidently does not prescribe an expected level of foreign economic involvement for member states. This is the reason why the EU had to rely on membership conditionality and quasi-legal instruments in enforcing its requirements: in the Accession Partnership documents, which officially outlined the necessary steps for the candidates to take, further privatization and the promotion of foreign capital inflows appeared as key economic conditions of membership.[18]

The growing external pressure on the ECE as well as on the V4 governments generated broad political repercussions also with respect to investment policies. The prescriptions of the EU implied that a radical shift was necessary in the attitude of those countries that had actively limited foreign involvement in their economies. Non-compliance risked prospective EU membership, which was politically unviable: the "threat of exclusion kept domestic reforms moving" (Vachudova 2005 p. 192). At this point the EU's policy roadmap represented more than simply a source of inspiration: it became a coercive tool to shape domestic developments.

Policy changes in the applicant countries, as well as in the V4 were widespread. With regards to economic reforms, privatization speeded up and became open to foreigners and the governments also adopted new economic strategies relying on foreign capital. For instance, the new Slovak government, which came into power in 1998, was one of the most active in seeking compliance with the EU's demands. After Prime Minister Dzurinda's visit to Brussels, a high-level EU-Slovakia working group was established, whose objective was to facilitate the country's preparation for EU membership and to foster the fulfillment of the accession criteria. In the meantime, the Slovak parliament abolished the law that banned the privatization of strategic enterprises and approved a comprehensive program of economic

[18] The Accession Partnerships signed with the candidate countries followed the same structure: in each document sections 4.1 (short-term economic criteria of membership) and 4.2 (mid-term economic criteria) prescribed the completion of the privatization process and in certain cases also indicated sectoral preferences. *Source*: http://ec.europa.eu/enlargement/archives/enlargement_process/past_enlargements/eu10/

restructuring, including the privatization of the banking sector. In 1998, the Dzurinda government set liberalization to foreign direct investments as one of its main goals. Accordingly, they introduced tax credits to foreign investors (Klazar and Sedmihradsky 2002) and implemented several key reforms, including banking sector restructuring, and the privatization of state-owned enterprises (Jakubiak et al. 2008 p. 17). The government also adopted a strategy on FDI and a comprehensive system of investment incentives (Figel 1999).

The Czech approach also changed fundamentally: Klaus's centre-right party lost the elections in 1998 and the new governing coalition adopted a diametrically opposite stance towards foreign investments. As reported by Charlton (2003), in 1998 the new Czech government approved a package of incentives including corporate tax reliefs for ten years for newly established companies and partial corporate tax discounts for five years for already existing foreign businesses (see also Cass 2007; Guagliano and Riela 2005; World Bank 2004). In addition, the package offered job creation and training grants, the provision of industrial property at low prices and infrastructural support. At the same time, privatization speeded up and became open to non-residents, too. In a similar vein, in 2000 Poland undertook a tax reform, which involved the gradual lowering of the corporate income tax in the following five years. Moreover, in 2001 the Polish government reduced the minimum investment size required for the granting of fiscal benefits from 2 million to 100 thousand euro (Sass 2003).[19]

Slovenia offers a hard case to test the above proposition about the EU's transformative influence on domestic investment policies. Although the country was the most westernized transition economy, thus the most likely target of FDI, its foreign capital inflows remained moderate throughout the 1990s. This can be attributed to several factors. As Crowley and Stanojevic (2011) argue, Slovenia had a competitive export sector of large capital-intensive and western-oriented companies, which depended on skilled labor. On the one hand, the employers had a strong interest in the job security of their core workers. On the other hand, the powerful labor movement exerted pressure on the government to introduce a privatization strategy that favoured company managers and workers. As a consequence, the emerging tripartite coordination led to the birth of a neocorporatist system, where strategic sectors remained closed to foreign ownership (Bohle and Greskovits 2012). In addition, the Slovene economy was not in need of drastic fiscal adjustments because the state budget was in balance

[19] At the same time, after 2001 only investors in the SEZs were eligible for the benefits.

and the country had no substantial foreign debt when it gained independence (Pleskovic and Sachs 1994). Slovenia thus did not need to generate cash revenues by selling state assets to foreigners and because of its export competitiveness it neither required an immediate and deep structural adjustment of its economy through FDI.

Because of the strong domestic interests to keep external investors out from the Slovene economy, the country represented the most unlikely case to give in to external pressures for more FDI inflows. In spite of this, at the end of the 1990s Slovenia reformed its laws and even its constitution to provide foreign and domestic investors equal investment protection and equal rights to enter and exit business. According to Bandelj, "foreign investment policy in Slovenia had to be amended to comply with the EU legislation" (2004 p. 465). In line with this policy shift, a grant scheme offering financial incentives to foreign investors was also introduced in 2000. Moreover, a recent analysis has shown that Slovenia's reliance on investment promotion has been growing as the intensity of the country's FDI promotion through this scheme has gradually increased during the last decade both in terms of the annual amount spent and in the proportion of grants to project values (Burger et al. 2012).

These domestic developments provide evidence for the claim that the EU exerted significant, transformative influences on the investment policies of East Central European countries. The alternative explanations to the domestic policy shifts do not marginalize but rather reinforce the EU's role. The Czech economic crisis in 1997, which negatively affected other ECE economies, demonstrated the failure of the national capitalist approaches. At the same time, other important external actors, such as the IMF and the World Bank, were also pressing for those economic reforms that the EU was demanding. In addition, the relative success of those countries that sold state-owned assets early on encouraged others to emulate this process (Jensen 2006). For instance, the management of the Czech investment promotion agency visited Hungary in 1998 to study the Hungarian institutional structure of investment promotion. Based on the experiences they gained there and presumably at other places, the Czechs created the most comprehensive and flexible system of investment promotion among the V4 (Interview ITDHb 2012).

As a result of these developments, the FDI-promoting coalitions between multinational enterprises and domestic political elites gained strength and the EU became their powerful legitimizing ally. In this respect, turning to the implementation of the neoliberal-inspired

policy template of the EU was almost over-determined as all other alternatives failed. However, the EU-induced policy shifts involved an important consequence: reliance on foreign capital gave the upper hand to the transnational companies in their relation with the Visegrad states. In addition, the emerging investment competition among the V4 further strengthened the position of foreign investors and weakened that of the central governments.

## 2.6 The purpose of investment incentives

When the EU accession negotiations commenced, all the Visegrad countries were offering various and rather generous investment incentives to foreigners with the purpose of influencing their location decisions. The literature lists three main reasons for introducing such comprehensive incentive schemes: to mitigate investment risks, to compete with regional and/or external rivals, and to promote specific, usually backward regions. Each of these potential motivations predict different logics of investor behaviour and this is why their underlying rationale needs to be clarified before analyzing how these incentive schemes affected foreign investors' location choices.

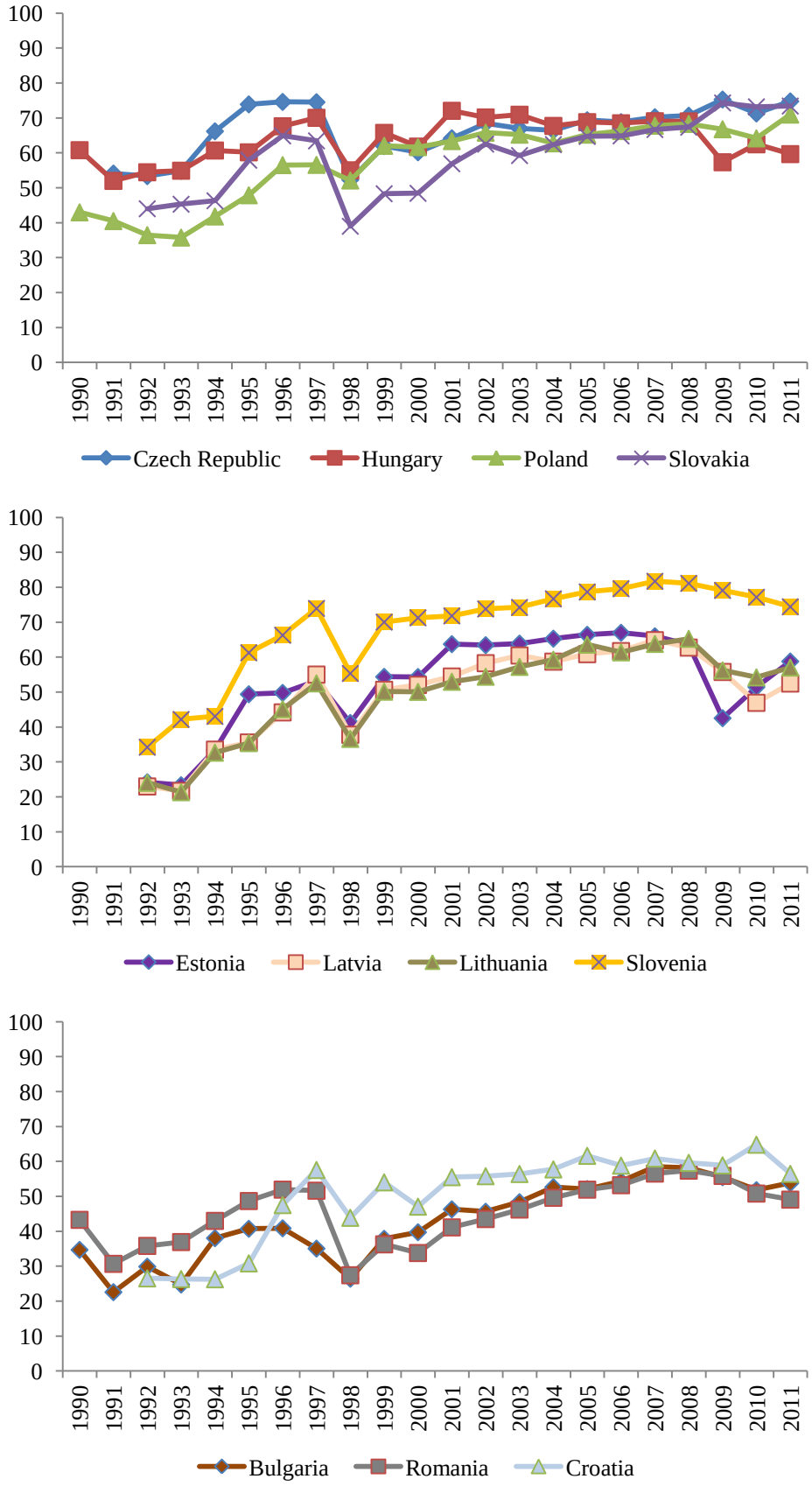
First, investment incentives reduce the costs of investment, hence they mitigate risks and uncertainty associated with the planned investment project (Charlton 2003). Several authors argue that because of the special institutional and economic circumstances of transition, foreign businesses had to face much risk in East Central Europe (Cass 2007). Especially the early 1990s was a time of "extraordinary politics" when government policy and changes in the institutional and legal framework featured among the main concerns of foreign investors. Sufficient information about their prospective business partners was also lacking because of the uncertain valuation of former state-owned enterprises. Investors also had to confront with unsettled regulatory frameworks and an inexperienced bureaucracy (Meyer and Jensen 2005). Furthermore, they had to face fiscal instability, dubious prospects for privatization and unpredictable markets (Murphy 1992). In short, the circumstances in the initial period created a temporarily incomplete, quickly changing and uncertain institutional framework that raised the transaction costs of investments high and made early investments risky (Bevan and Estrin 2004).

Second, governments may offer incentives to foreign companies in order to promote industrial or regional development policy objectives (Charlton 2003). Indeed, incentives may be granted in a spatially selective way: the most direct place-specific investment incentives are free economic zones and industrial parks. Their goal is to generate clusters of industry that will potentially have a spillover effect on the local economy (Meyer and Jensen 2005). Among the Visegrad countries only Poland and, to a much smaller extent, Hungary experimented with place-specific incentives. The next chapter will discuss why they failed to fulfill their expected role of promoting investment into backward regions.

Finally, incentives may be offered to outbid the rivals in an increasingly competitive environment. Based on a detailed assessment of global investment promotion practices, Oman (2000) found evidence that incentives-based competition has intensified since the mid-1980s: ”as the global move by governments to liberalise economic policies has facilitated and stimulated the global growth of FDI (along with increased global inter-firm competition and corporate restructuring), governments have intensified competition with one another in seeking to attract “their share” of increased global FDI flows” (2000 p. 78). According to Sass, due to the effects of globalization, the provision of incentives for foreign investors has indeed become more essential: “as a result of the advancement of information technology, telecommunication, [...] and the progress of globalisation, the various locations are becoming increasingly alike, and in that situation the incentives and benefits are becoming increasingly important” (2003 p. 9).

Theoretically, intensifying investment competition may lead to two possible outcomes: in the positive-sum scenario, governments may be forced to improve the institutional and economic fundamentals and ensure political and macroeconomic stability and a business-friendly environment. In the long run, this would be beneficial both for the investors and the host economy. However, if competition heats up, governments may come under increasing pressure to engage in so-called “bidding wars”, in order to secure the desired investments (Charlton 2003; Oman 2000 pp. 17–18). In such situations, when political pressure on governments to be job winners increases, it may happen that they offer greater incentives to an investor than the net benefit of the investment project (Charlton 2003). Oman (2000) finds that the most intense bidding wars often take place between similar countries or even regional governments.

**Figure 2.4: Country risk indexes (1990-2011)**




*Source*: Euromoney magazine, various issues

The above review of the general motivations for investment incentives raises the question that besides complying with the EU's demands to promote foreign capital inflows, what other objectives did the V4 governments have when they introduced comprehensive investment incentive schemes at the end of the 1990s? Were the schemes intended to mitigate investment risks or were they designed to seize investments from other competing locations? The over time trends in the perceived country risks may clarify this issue. Figure 2.4 demonstrates the evolution of Euromoney magazine's country risk index for the East Central European states since the beginning of transition. This composite index accounts for several indicators of economic and institutional performance and aims to offer a proxy for investors' perceptions (Hauser 2006).[20] The index falls between 0 and 100 and lower values represent higher risks.

The figures reveal that in the 1990s the Visegrad group was not perceived as a homogenous entity: Hungary and the Czech Republic were relatively risk-free locations, while Slovakia and especially Poland posed greater risks to investors. The high Polish risk rating may be surprising but Poland's negotiated debt service relief in the early 1990s may have created a less stable and less reliable external image of the Polish economy (Bohle and Greskovits 2001). Nevertheless, as democratization and the process of transformation into a market economy were progressing, risk ratings of the V4 were improving. Yet, in 1998 risk perceptions sharply deteriorated. This may have been caused by the combined effect of the Czech currency crisis and the Asian financial crisis in 1997 and the Russian financial crisis in 1998. These economic shocks led to a significant loss in investors' confidence but they did not have a lasting impact as risk indexes soon began to improve.

The risk perceptions of other ECE economies show similar trends, with an important distinction though. In the 1990s the Visegrad group's risk ratings were consistently better than that of the other East Central European countries. Only Slovenia's rating climbed to and eventually exceeded the V4 levels by the end of the decade. However, after the EU had started accession negotiations with all the ECE candidates[21], their risk perceptions began to



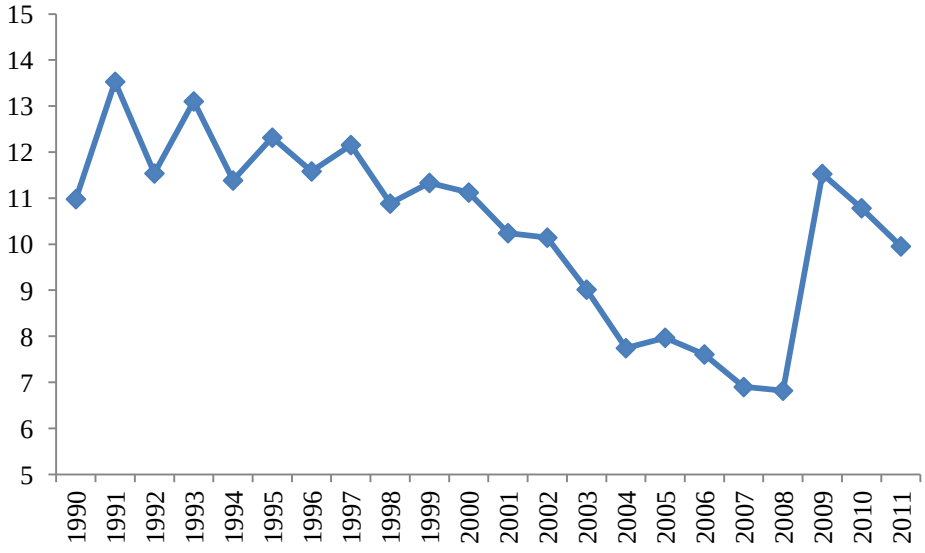
[20] The index is composed in the following way: 25 % political risk, 25 % economic performance (GNP per capita), 10 % debt indicators, 10 % debt in default or rescheduled, 10 % credit ratings, 5 % access to bank finance, 5 % access to short-term finance, 5 % access to capital markets, 5 % discount on forfeiting (Hauser 2006 p. 23).

[21] First wave negotiations with the Czech Republic, Estonia, Hungary, Poland and Slovenia began in 1998. Accession negotiations with Bulgaria, Latvia, Lithuania, Romania and Slovakia commenced in 2000. Bulgaria and Romania became EU members in 2007 while the other candidates joined in 2004. Croatia submitted its formal application for membership in 2003. Accession negotiations began in October 2005 and the country became an EU member in July 2013.

improve immediately. Prospective EU membership greatly contributed to the improving ratings because it gave a firm political and economic vision to the investors about the countries' likely future pathway (Sajdik and Schwarzinger 2008). Nevertheless, country ratings began to diverge again after the outbreak of the global economic crisis in 2007.

Figure 2.5 further demonstrates that as the EU's eastern enlargement became more of a reality than a dream, the whole East Central European region was increasingly treated as a homogenous area: the standard deviation of the risk indexes decreased, which involves that risk ratings did not simply improve but they tended to converge as well. In other words, risk perception of ECE economies became more alike in the 2000s. This suggests that in the eye of foreign investors, East Central Europe, as well as the Visegrad countries, offered rather similar, risk-free investment conditions. A further implication is that instead of mitigating investment risks, which were low anyway, investment incentives became essential tools for the central governments to outbid rivals and secure FDI. Ironically enough, in the early years of transition, when ECE economies were associated with relatively high investment risks, only few countries offered incentives to foreigners. Many of them were even reluctant to open up to FDI, which explains why overall FDI levels remained "disappointingly low" in the 1990s.[22]

**Figure 2.5: Standard deviation of ECE risk indexes (1990-2011)**




*Source*: the author's own calculation, Euromoney magazine

[22] In their study on FDI to East Central Europe, Sinn and Weichenreider (1997) described overall investment inflows as disappointing.

However, converging risk perceptions, the EU-driven re-orientation of FDI policies and the subsequently growing dependence on foreign capital suggest that competition for investments was likely to emerge in East Central Europe after the turn of the millennium. Within ECE, the Visegrad countries were the most susceptible to engage in a fierce "bidding war" (Drahokoupil 2009a) because they shared several common structural characteristics.

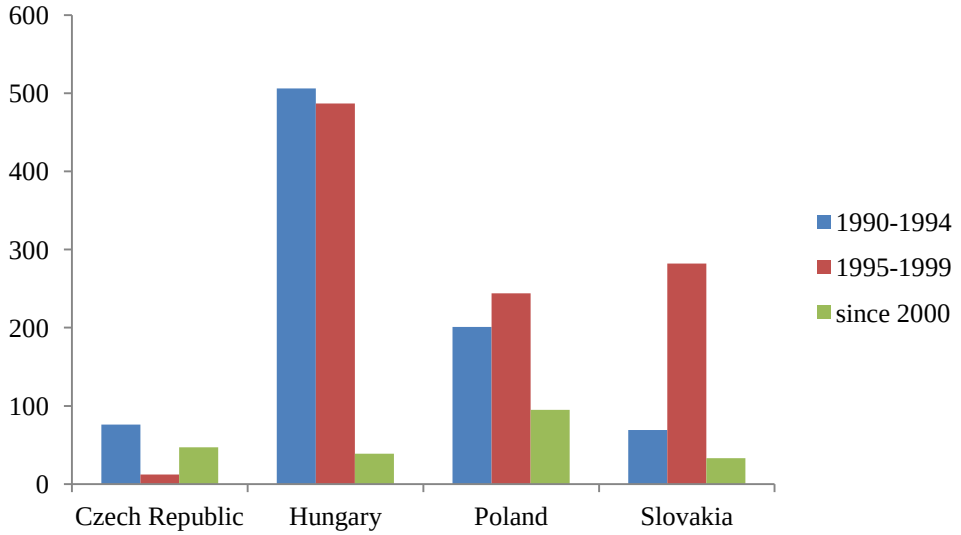
First, by the early 2000s privatization was nearly complete in the V4, which involved that the role of traditional sources of FDI, such as greenfield investments, were becoming more significant (Antalóczy and Sass 2001; Jensen 2006). Although reliable time-series data on the division between privatization and greenfield FDI do not exist, the World Bank's Privatization Database is suitable for estimating certain trends. Figure 2.6 shows the number of those privatization deals in the Visegrad countries that generated revenue for the central governments. This means that the data do not include firms that were transferred to the private sector through mass or voucher privatization, which was the dominant method of selling state-owned assets in the Czech Republic and, to a much lower extent, in Poland.[23] This is also the reason why the Czech data deviates so much from the other countries. In addition, the database does not contain information about whether the enterprises were sold to foreign or domestic investors.[24] In spite of these caveats, the figures clearly demonstrate that most of the privatization deals were concluded by the end of the 1990s. This implies that the sale of state-owned companies no longer represented the primary source of foreign investments thus from the early the 2000s attracting greenfield foreign investors gained priority.



[23] In the Czech Republic, each adult citizen was eligible for receiving free vouchers to bid in auctions of shares in formerly state-owned enterprises that had been transformed into joint stock-companies. The mass privatization program affected about 1800 companies and covered more than 40 percent of the book value of divested state property. In Poland, about 10 percent of the total book value of state assets (including those that the state retained) was privatized through this method (Bornstein 1997 p. 334).

[24] However, it is reasonable to assume that the privatization deals included in the World Bank's database mostly refer to transfers of state property to foreign owners. For instance, in Hungary in 1990-1991, more than 70 percent of the privatized state assets were purchased by foreigners (Bornstein 1997 p. 331; Odle 1993a p. 10).

**Figure 2.6: Number of privatization deals in the Visegrad countries since 1990**

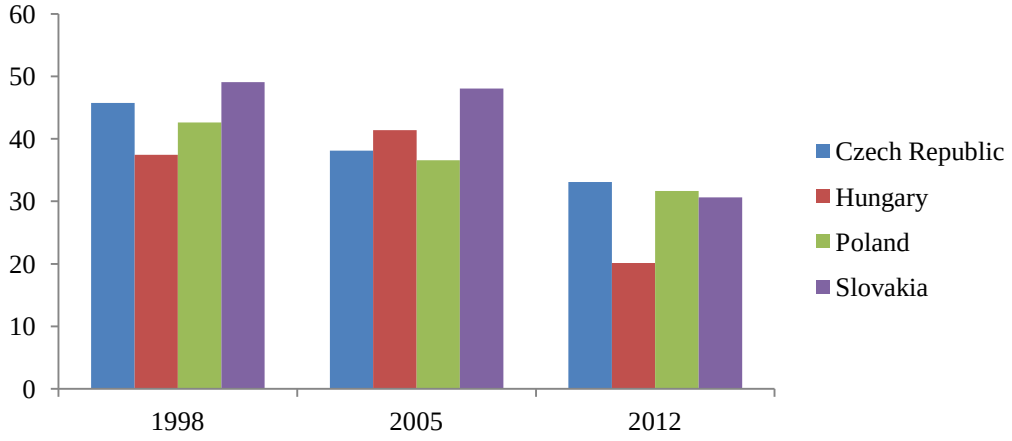



*Source*: the author's own calculation based on the World Bank's Privatization Database

Second, within East Central Europe, the Visegrad economies were structurally most similar to each other: they had comparable manufacturing and export bases and similar industrial profiles with particular strengths in machinery, electric-engineering, metallurgy and chemistry and they also offered an abundance of cheap, high-skilled labour. Moreover, as Bohle and Greskovits (2012) suggest, the Visegrad governments considered their industrial legacies as an asset to be preserved and modernized in order to catch up with western Europe. Because their industrial profiles were rather similar and their strength lay primarily in the complex manufacturing industries, they offered comparable investment opportunities for prospective investors.

The similarity of the V4's industrial profile is reflected in the data on sectoral FDI. As Figure 2.7 reveals, manufacturing foreign investments took the highest and relatively similar shares from total FDI stock both in 1998 (ranging between 37 and 49 percent) and in 2005 (ranging between 37 and 48 percent). However, the 2012 figures indicate that the significance of manufacturing FDI declined after the 2007-2008 economic crisis and investments into the service sector took the lead. Yet, at the turn of the century when the liberal shift in the FDI policies in the V4 occurred, manufacturing investments constituted the primary source of foreign capital.

**Figure 2.7: Share (%) of inward manufacturing FDI stock from total FDI stock in selected years**




*Source*: the author's own calculation based on WiiW FDI database

Moreover, even within the manufacturing sector the four countries were competing for investors within the same industrial segments (Table 2.2). By the mid 2000s, the chemical industry and the manufacture of transport equipment were the two main areas where the bulk of FDI entered. The figures also show that, although never dominant, light manufacturing (textiles, leather and food products) gradually lost ground to complex manufacturing industries. These figures confirm that in terms of FDI, the V4 has been the most competitive in the complex manufacturing segment.

**Table 2.2: Share (%) of inward manufacturing FDI stock across industrial segments**

| | 1998 | | | | 2005 | | | | 2012 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Czech Republic | Hungary | Poland | Slovakia | Czech Republic | Hungary | Poland | Slovakia | Czech Republic | Hungary | Poland | Slovakia |
| Chemicals[a] | 41.93 | 26.35 | 19.83 | 48.52 | 37.53 | 31.67 | 26.24 | 49.99 | 32.55 | 40.49 | 31.44 | 47.33 |
| Electrical and optical equipment | 9.79 | 23.22 | 2.31 | 7.61 | 11.28 | 21.55 | 2.34 | 9.25 | 9.58 | 18.66 | 3.26 | 11.88 |
| Transport equipment | 15.35 | 14.81 | 17.87 | 9.08 | 24.19 | 25.15 | 17.73 | 20.52 | 30.31 | 16.15 | 16.77 | 19.06 |
| Food products, beverages and tobacco | 15.58 | 19.31 | 28.31 | 23.99 | 9.58 | 10.14 | 16.54 | 5.12 | 10.26 | 11.74 | 18.88 | 6.20 |
| Textiles, leather, wood and paper products | 12.95 | 9.91 | 10.89 | 4.77 | 9.34 | 5.62 | 11.91 | 6.52 | 5.70 | 6.35 | 8.39 | 6.51 |
| Other manufacturing | 4.39 | 6.40 | 20.81 | 6.02 | 8.08 | 5.88 | 25.23 | 8.59 | 11.61 | 6.60 | 21.26 | 9.03 |

[a] coke, refined petroleum, rubber and plastic, non-metallic mineral products, basic metals and fabricated metal products, pharmaceuticals
*Source*: the author's own calculation based on WiiW FDI database

In sum, by the end of the 1990s all the Visegrad countries engaged in attracting FDI and, on top of it, their competitive edge appeared in the same industrial sectors. Under these conditions the emerging competition for investments gave more bargaining power to foreign investors and weakened the positions of the central governments. In addition to the internal rivalry, the Visegrad group also had to face competition at the EU level, which further fuelled the bidding war. The next section discusses this aspect and highlights how the competition policy rules of the European Union reinforced the privileged position of transnational investors in the Visegrad states.

## 2.7 Investment competition and the EU's regulatory influence

Because of their low labour and production costs, the V4 markets posed a threat of low-cost competition to the EU-15 already in the 1990s. The systematic provision of investment incentives to foreign businesses amplified the existing threats because they made the V4 even more attractive to investors. This is the reason why the governments of old EU member states were concerned about the possible relocation of manufacturing and service activities from west to east (Bellak 2004; Young 2005). While western multinationals could potentially boost their competitiveness by relocating from western to new eastern European plants, EU-15 governments were worried about the subsequent loss in western production capacities and employment.

The quest for FDI allowed transnational companies to play off these states against each other: the intensifying investment competition reduced the central governments' bargaining power towards foreign investors (Lönnborg et al. 2003). For instance, in 2004 Siemens AG threatened to close several production units in Germany and shift production to Hungary and China because of too high German labour costs (Bohle 2009 p. 178). To bring another example, in September 2002 Volkswagen (VW)'s management announced that it had decided to relocate part of its production capacity from Spain to Slovakia. However, the Spanish media revealed what became the core issue of the dispute, that the Slovak government granted generous tax holidays to VW, which covered about 30 per cent of the investment over a 10-year period (documented in Lönnborg et al. 2003 pp. 29–30). Seeking to preserve domestic manufacturing jobs, the Spanish government was threatening to veto Slovak EU accession negotiations unless the Slovak state aid would be lowered to a "fair" level. In the end, the

European Commission succeeded in reaching an agreement between the two governments, and the Spanish veto was recalled.

Anticipating the increasing low-cost competition from Eastern Europe, Western European governments also began to offer investment incentives in order to prevent industrial relocation. A recent analysis (Šćepanović 2013) of the European automotive industry found that already in the mid-1990s many EU-15 governments were pressuring the European Commission to account for the cost advantage of Eastern European locations when deciding about the EU-compatibility of targeted incentives for investment projects in Western Europe. For instance, in 1995 the German government refused to withdraw aid granted to Volkswagen for its planned investment in Mosel and Chemnitz, because these locations suffered from substantial cost disadvantages compared to the alternative site in the Czech Republic. In the end, the Commission yielded to the pressures and between 1998 and 2004 it included potential ECE investment sites in the aid assessments. Šćepanović showed that in this period, whenever a western and an eastern location was compared to each other, the average cost advantage of east European locations exceeded 30 per cent, and at times even 50 per cent of the total costs of investment. It is, therefore, not surprising that in each case the Commission approved the proposed EU-15 incentive schemes. While the Commission's approval of western investment incentives was clearly advantageous to transnational investors, the unintended side effect of this practice was that V4 governments got the impression that without offering even more incentives, western companies would refrain from investing in their economies.

Consequently, the V4s' investment policies were contrary to European regulations. Under EU law, incentives provided for investment projects classify as state aid, which may violate the EU's competition policy: Article 107(1) of the TFEU[25] prohibits any state aid that may distort competition within the EU. This is the reason why the Commission has to investigate in advance whether a proposed incentive scheme breaches EU law or not and only upon its legal approval can the scheme be introduced. As candidate countries had to adopt the *acquis* and adhere to the principles of competition policy already prior to joining the EU, discriminating

[25] With effect from 1 December 2009, Articles 87 and 88 of the EC Treaty have become Articles 107 and 108, respectively, of the TFEU (Treaty on the Functioning of the European Union). The two sets of provisions are, in substance, identical.

between domestic and foreign firms through targeted incentive schemes was, at least in theory, no longer possible.

However, because of the fierce investment competition, the candidates' investment policies were "in striking contrast to and even diverging from European rules before accession" (Blauberger 2009a p. 1031). This led to a paradoxical situation: hardly had the EU reached its goal of ensuring free FDI flows to East Central Europe, the subsequent policy deviations from European competition rules forced the European Commission to step in and regulate. The candidate countries had to renegotiate the terms of the incentives to reach compliance with the EU law. Nevertheless, "striking a compromise proved difficult since Mario Monti, the commissioner for competition during the first wave of accession, was particularly rigid. He wanted candidate countries to cancel their tax-incentive programs prior to the date of accession" (Appel 2011 p. 73).

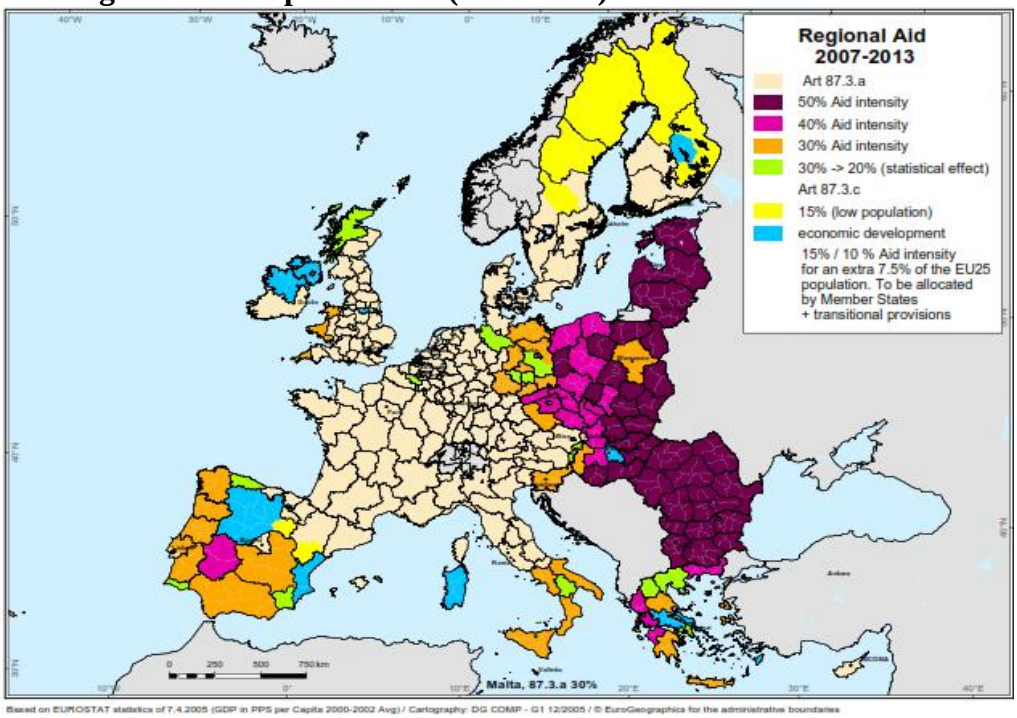
Especially the Polish SEZs were unacceptable for the Commission: there was a strong pressure on Poland to abandon them but the Polish government did not want to dissolve the zones. The other candidate countries were equally eager to keep the incentives and the multinational investors also heavily lobbied for them in Brussels. In the end, the candidates successfully defended those tax allowances and fiscal subsidies that had been granted to foreign investors: the EU gave temporary derogations for the already awarded incentives (see for instance Bohle and Husz 2005; Guagliano and Riela 2005). Although Poland was not allowed to set up new SEZs after 2001, the tax exemptions remained effective in the zones (Cieślik 2005; Guagliano and Riela 2005).

Why did the Commission become so lenient towards these incentive schemes? Although the multinationals companies' lobbying activity in Brussels was an important factor, this alone would not have been sufficient for retaining the incentives. The main reason for the shift in the Commission's approach was that it became trapped into its own rules. Although the EU's competition policy prohibits targeted, sectoral incentives (as opposed to horizontal aid), it allows for certain exceptions which benefited the new EU members. Articles 107(2) and 108(3) of the TFEU list those categories of aid that are justifiable. According to this, state aid promoting the development of an economically backward area can be compatible with EU law (Blauberger 2009b). Investment incentives provided in backward locations can therefore be justified by referring to their contribution to regional development. This is especially

relevant in the case of the Eastern European countries because they are poorer than the old EU members.

From the EU's perspective, almost every single region in the new member states, as well as those in the V4, qualifies as backward because their per capita GDP are well below the EU average. In other words, the exception stipulated in the EU's competition law applied to nearly the whole territory of the Visegrad countries. In practice, this meant that the European Commission had to approve each incentive scheme on the basis of its expected contribution to regional development. In particular, with some modifications, the Investment Incentives Law of the Czech Republic, the Polish law on Special Economic Zones, and the governmental aid schemes of Hungary and Slovakia were endorsed by the Commission. In the end, the EC published a comprehensive list of those measures that had been approved as existing aid in the new member states.[26] The list, which included targeted aid to single companies as well as general state aid schemes, contained 113 Czech, 22 Hungarian, 45 Polish and 63 Slovak measures. Among these, the number of existing aid schemes reached 42 in the case of the Czech Republic, 22 in Hungary, 41 in Poland and 13 in Slovakia.

**Figure 2.8: Regional aid map of the EU (2007-2013)**




*Source*: European Commission, DG Regio

[26] *Source*: Publication of a list of measures considered by the Commission as existing aid, within the meaning of Article 88 (1) of the EC Treaty, upon accession of the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia to the European Union. *Official Journal of the European Union*, 2007/C227/03, page 6.

In addition to the above, the Commission prepared regional aid guidelines,[27] which determined the maximum allowable investment aid in each region in the European Union. The regional aid map based on the guidelines effective between 2007 and 2013 clearly demonstrates (Figure 2.8) that in the new member states regional aid ceilings were well above the ones applied to the regions in the old member states. This suggests that in return for their investments, transnational companies were able to receive much higher state support in ECE than in Western Europe. The considerable gap between Eastern and Western European regional aid limits combined with the already existing comparative cost advantages of Eastern European regions have ensured that they would continue to enjoy a privileged status relative to EU-15 regions.

However, regional aid ceilings within the new member states were standing at a highly similar level. In other words, without much differentiation, the granting of relatively high levels of state aid for new investments has become equally legitimate in the more and in the less developed areas. Consequently, truly backward, lagging behind East European regions had to compete for investments on equal terms with the more developed, prosperous areas. Ironically enough, the idea of playing by the same set of rules have generated unequal competition because the foreign investors received nearly the same level of fiscal and financial benefits in the more prosperous as well as in the backward areas. To put it differently, the system of almost uniform incentives encouraged multinational companies to invest in the more developed areas that offered better endowments than the lagging behind territories. Moreover, the intensifying investment competition across the V4 reinforced the strong bargaining position of foreign investors which resulted in everything but an advantageous position for the backward regions.



## 2.8 Conclusion

This chapter began with the analysis of micro-level determinants of the spatial distribution of FDI in the Visegrad countries. The results confirmed the propositions of mainstream economic theories of regional development, which argue that better regional endowments tend to attract greater capital flows. This process seems to create virtuous and vicious circles

[27] The most recent regional aid guidelines for 2014-2020 are available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2013:209:0001:0045:EN:PDF

of development and leads to persistent or even deepening regional disparities in market economies. However, this approach fails to account for the role of contextual factors, such as transnational and domestic political influences and interventions that may shape investors' location choice. Without reflecting on the relevance of these factors, the picture obtained by focusing exclusively on the economic determinants is bare at best and incomplete at worst.

Having identified the need for incorporating the broader political context into the analysis of FDI, the chapter also reviewed those studies that share a similar perspective. However, it found that existing works do not sufficiently explain the different dynamics of foreign capital inflows in the 1990s and in the 2000s. To fill this gap, it has been argued that the European Union's influence on the initially anti-FDI domestic approaches has been decisive in triggering a liberal shift in the investment policies by the end of the 1990s. While in the early years of transition only Hungary was consistently open to FDI, after the domestic policy shifts all the Visegrad countries have placed their fortune on attracting foreign capital which generated fierce investment competition among them. In this period the EU's regulatory intervention aimed to contain the escalating bidding war and sought to make the increasingly generous investment schemes compatible with European competition law.

With an ironic twist, however, according to EU regulations, investment projects may receive state aid on the purpose of enhancing regional development. Based on this clause, the EU approved most of the investment schemes that the V4 governments introduced. Moreover, given the relative backwardness of the V4 compared to old member states, the EU set high regional aid limits in the Visegrad countries. By doing so, it has legitimized, although to a certain extent also limited investment competition. More importantly, the legal provision of state aid to foreign investments further raised the already great cost advantages of the V4, which ensured the sustained, persistently high FDI inflows in the 2000s. In short, investment competition has kept the Visegrad countries premium investment locations, which explains the unexpectedly high foreign capital inflows observed in this period.

Nevertheless, aid limits did not sufficiently differentiate between more developed and lagging behind regions, simply because they all qualified as backward relative to EU standards. Under such circumstances, foreign investors enjoy greater freedom in selecting their investment locations, which provides them superior bargaining power towards central governments that are committed to attract those investments. In the end, because of the lack of adequate

regional differentiation in state aid limits, the rationality of investors prevails, which is advantageous for the more developed regions. This is how contrary to the declared policy goals, the EU's investment regime has reinforced regional disparities in Central Europe.

The next chapter discusses in detail the spatial distribution of FDI both in the 1990s and in the 2000s. On the one hand, it brings several empirical examples to demonstrate why already in the first decade of transition – during the era of the privatization of state-owned enterprises – foreign investors entered the more prosperous regions. On the other hand, the chapter shows why the provision of investment incentives has contributed to uneven regional development.

# CHAPTER 3

## PICKING THE WINNERS: LOCATION CHOICES OF FOREIGN INVESTORS

### 3.1 Introduction

The previous chapter analyzed the transnational and domestic regulatory and political background of FDI flows to the V4 both in the 1990s and in the 2000s. The two decades differ in many instances. In the 1990s FDI came mostly through privatization but except for Hungary, the V4 economies remained rather closed to foreign investors. With few exceptions, systematic provision of investment incentives was also rare in this period. However, greenfield projects became the dominant type of foreign investment in the 2000s, which were heavily subsidized through generous incentive schemes. How did the different environments of the two decades affect location choices of foreign investors? Why did foreign investors consistently prefer to enter the more developed regions even under highly dissimilar conditions? This chapter seeks to answer these questions by analyzing how the sequence of events outlined in the previous chapter has actually played out on the ground and affected investors' location choices.

The empirical evidence introduced here shows that in spite of the different and changing contexts, foreign investors have enjoyed superior bargaining position over central governments ever since the change of regime. On the one hand, investors greatly benefited from the considerable financial and fiscal subsidies included in the privatization deals in the 1990s. On the other hand, the emerging investment competition in the 2000s provided high bargaining power for greenfield foreign investors that were flexible in choosing the location of production.

Because foreign investors had the upper hand, they were able to dictate the rules of the game even in the case of place-specific incentives, which were explicitly designed for enhancing the development of backward regions. The examples discussed here demonstrate that regulatory convergence on EU rules and domestic political choices jointly determined that relatively rich regions were able to prosper, while most of the backward ones became the losers of transition.

First, the chapter focuses on the location choices of foreign investors in the 1990s then it will analyze the spatial distribution of FDI in the 2000s.

## 3.2 Location choices of foreign investors in the 1990s

What did the different investment policies imply for the location choices of foreign investors in the 1990s? On the one hand, those enterprises that entered domestic markets through privatization did not have the opportunity to choose their location because they acquired state-owned firms with existing production facilities. In this sense, they faced potential investment risks because of the uncertain valuation of former state-owned enterprises. To be sure, investors tried to mitigate those risks by demanding state grants and subsidies in return for their investment. Greenfield investors, however, were free to choose investment sites and selected locations with the lowest estimated risks and highest expected return on invested capital.

A further distinguishing feature between firms entering through privatization and those through greenfield investments is that privatization mainly attracted market-seeking businesses that wanted to gain access to and serve the domestic markets. However, greenfield investors, which set up brand new production plants, were primarily export-oriented and efficiency-seeking: they tended to "shop around" potential sites before making an investment decision. This implied that greenfield investors were more sensitive to investment incentives than the ones involved in privatization. Therefore, because of their flexibility in choosing the investment site, greenfield investors had strong bargaining position *vis-à-vis* the local or national authorities (Cass 2007).

Because privatization represented the main source of FDI in the 1990s, this, intuitively, placed those regions in a more advantageous position that already possessed a considerable industrial base. This is simply because those regions had more state-owned enterprises (SOEs) to sell, thus they possessed greater initial potentials for FDI inflows. At the same time, the regions with higher number of SOEs were usually also among the more prosperous ones. The correlation coefficient between the regional number of SOEs and the NUTS 3 level regional

GDP per capita in 1995 ($r$ = .525; p < .01, N = 86) indeed shows that there was a considerable association between the number of state-owned firms and the level of development.[28]

In this sense, privatization in the 1990s determined foreign investors to enter the more developed regions, which laid the ground for subsequent greenfield investments as well. This suggests that FDI location choices were path-dependent, which reinforces the arguments derived from mainstream theories of regional development such as evolutionary approaches and new economic geography. However, as the following pages demonstrate, path-dependency was not a fully automatic process as it is commonly conceived within the framework of those theories. Agency played a notable role in at least two aspects: first, in most of those cases when state-owned enterprises were put on sale, central governments had weak bargaining power towards foreign investors and caved in to their demands for subsidies, even though most of these brownfield investments were accomplished in relatively well-developed thus low-risk regions. Second, as the example of the Polish Special Economic Zones demonstrates, the promotion of backward areas with place-specific incentives also became a victim of transnational corporate interests.

While the location of production was fixed for privatized businesses, the deals often included special treatments for the investors, such as the provision of fiscal benefits, which made the acquisitions more attractive and less risky. At the same time, governments were concerned about the loss of jobs: by giving preferential treatment to foreign investors they hoped that jobs would be preserved at the enterprises offered for sale. Thus the mere inclusion of fiscal and financial "carrots" in the privatization contracts reveals that already in the 1990s investors enjoyed superior bargaining power over central governments. The following privatization cases in the complex manufacturing sector demonstrate this point. The dominance of this industry is not surprising because as it has been demonstrated in Chapter 2, until very recently manufacturing FDI represented the largest share of total FDI stock in the V4.

The first example is that of Fiat, the Italian car manufacturer, which has been present in the Polish market since 1921. After the change of regime, the Italian firm decided to participate in the privatization process of the Polish carmaker FSM, which, under its license, was producing Fiat 126, Cinquecento, and other small passenger vehicles in its factory in Bielsko-Biała. The city is located in the heavily industrialized, relatively well-developed southwest part of

[28] *Source*: The author's own calculation based on data collected from the national statistical offices. SOE data for Slovakia is from 1997. The Polish data used in this calculation refers to the pre-2007 territorial system, where 45 NUTS 3 regions existed instead of the current number of 66 regions.

Poland, near the Czech border and is close to the major industrial zone of Katowice. In 1992, Fiat engaged in the privatization of FSM and acquired a 90 per cent stake in the new joint venture (Uminski 2001 p. 88). Fiat's decision to invest in Poland was reported to be contingent upon receiving protection for its domestically produced cars. The Polish government allocated duty-free import-quota rights to Fiat, which, over the next few years, was enjoying a virtual monopoly as the only large-scale auto manufacturer in Poland (Werner 2003 p. 12).

As reported by Dunin-Wasowicz et al. (2002 p. 25), the Polish government's generosity was also motivated by the fear that the potential failure of the factory in Bielsko-Biała would have been a disaster for the local economy. As a consequence, the government was under significant pressure to act quickly in order to save the company and was willing to make notable concessions to the most interested investor. According to the privatization agreement, FIAT acquired a majority share in the joint venture for a price of one dollar. In addition, the government introduced a 35 per cent tariff on the import of small cars which would compete with the product lines assembled in Bielsko-Biała. Since the Italian company exploited this position and followed a monopolistic pricing policy, domestic consumers suffered a considerable loss.

The significance of the opportunity to receive fiscal benefits through privatization deals is further highlighted by the investment of Knorr-Bremse in Kecskemét, Hungary. The town is located 86 km southwest from Budapest and is conveniently connected with the city through a highway. Kecskemét is thus within short distance from the most developed part of the country. As Antalóczy and Sass (2001 p. 47) reported, the German manufacturer of brake systems set up a joint venture with the Hungarian Mogürt Foreign Trade Company in the second half of the 1980s. The joint venture produced and exported brake systems for buses and trucks manufactured by other countries of the Council for Mutual Economic Assistance (CMEA). The aim of the German firm was to gain access to the large CMEA market. However, after the collapse of the Eastern markets, the management of the company had to change its strategy. They bought out the shares of the joint venture and the Kecskemét plant began to produce brake systems for the parent company in Germany. This required the setup of a completely new production system and technology, which involved huge investments. To decrease the costs, Knorr-Bremse transferred its production to an industrial free trade zone, where the company was exempt from paying VAT and duties on imported equipment. Later,

Knorr-Bremse acquired another plant in Budapest where it established the European research and development base of one of its product lines.

The case of the acquisition of Škoda by Volkswagen (VW), the German car manufacturer resembles that of FIAT's investment in Poland. VW purchased 31 per cent of Škoda from the Czech government in 1991, with an agreement that it would increase its shareholding to 70 percent by 1995. The German investor paid 900 million US dollars and in return received a two year tax holiday. In addition, the Czech government wrote off Škoda's debts and provided protective tariffs that ensured the car manufacturer's monopolistic position in the domestic market (Pavlínek 1998). Although the deal seems to have been very beneficial for Volkswagen, the Czech government insisted on including performance requirements in the agreement which only the German manufacturer was willing to accept and this is the reason why it won the bidding against the other competitors. According to these clauses in the contract, VW was expected to invest 5.3 billion US dollars in the company and double Škoda's annual production by 1997. In addition, the Czech government retained voting rights thus, at least in theory, was able to influence management decisions (Odle 1993b). In spite of these contractual agreements, by referring to unexpected financial difficulties, Volkswagen decided to lower its investment plans in 1993, which caused political controversy in the Czech Republic and contributed to the anti-FDI stance of the Klaus government (Pavlínek 1998).

The privatization of Škoda was unique in that the Czech company was among those few state-owned enterprises in the V4 which raised the interest of multiple foreign investors. Because of this, the Czech government enjoyed somewhat greater bargaining power than in the case of other privatization deals. Nevertheless, in terms of the location of the plant, the story is not different from the rest. Škoda's factory lies near the town of Mlada Boleslav, which is located in the Středočeský region, long ago the second most developed area after Prague. Hence, similar to Fiat's investment in Poland, VW acquired a formerly state-owned company in a region which was already relatively prosperous compared to the rest of the country. Moreover, given that at the beginning of the 1990s Czech labour costs were only 10 per cent of the Western German levels, the Czech location enjoyed huge cost advantages over Western European sites. Taking all these factors into account, one may doubt the necessity of the special treatment that VW received regardless of the performance requirements included in the agreement.

While each case of privatization represents a unique deal between the investor and the central government, the foreign companies that entered the domestic markets through the acquisition of former state-owned assets contributed to the emergence of systematic investment incentives. In several instances, the foreigners demanded fiscal or financial benefits from the governments in return for engaging in further investments or for carrying out plant expansions. In the latter case an originally brownfield investment was the basis of establishing a greenfield investment site which created a link between the location choices of investors that entered through privatization and the subsequent greenfield investments.

The cases of Volkswagen's investment in Slovakia and later in Hungary provide insights into the above mechanism because they show how fiscal incentives were driving plant expansions and how an existing facility generated further FDI in its neighbourhood. In 1991, Volkswagen acquired an 80 percent stake in Bratislavské Automobilové Závody (BAZ), which produced Škoda-licensed models. The plant lies in the vicinity of the city of Bratislava, the most prosperous region in Slovakia. The German car manufacturer gradually increased production, until the Slovak government decided to grant tax incentives to Volkswagen in 1998 to support its plans of expanding the facility. Between 1999 and 2008 the German company received a total tax exemption of 531 million euro for an overall investment of 1686 million euro.[29] This implies that the corporate tax exemption alone represented nearly 30 per cent of the total value of VW's investment in the Bratislava plant.[30] The generous fiscal incentive paved the way for the rapid expansion of the factory's operations and attracted a number of large foreign suppliers such as Johnson Controls and Lear Corporation. Many of these suppliers decided to locate in the Lozorno industrial park, only 26 km north from Bratislava. The park was also heavily subsidized by the government (Jakubiak et al. 2008).

The circumstances of Volkswagen's investment in Hungary were similar to the above case. VW entered the Hungarian market through a joint venture when Audi, the German carmaker's subsidiary purchased a portion of the formerly state-owned Rába complex in the town of Győr.[31] The city is located in the second richest region of Hungary (Győr-Moson-Sopron), close to the Austrian border and has an established tradition in component supplying for auto

[29] Net present value in 2009 prices.
[30] *Source*: State aid N 674/2008 – Slovakia – LIP – Volkswagen Slovakia. *European Commission Competition DG*. Brussels, 2 December 2009.
[31] Volkswagen's investment in the city of Poznan, which lies in the heart of Wielkopolski voivodship, the second richest Polish region after Warsaw, followed a similar strategy. In 1993, the German company first set up a joint venture with Tarpan, a Polish company, and later, in 1996 it became its full owner (Jakubiak et al. 2008).

manufacturing. With an investment of 530 million US dollars in 1993, Audi upgraded the existing facilities and built an engine plant there. Besides the abundance of skilled, cheap labour, "the city's location in Western Hungary, together with Rába's pre-existing railroad links, made the new engine facility ideally suited to supply VW/Audi assembly plants in both Eastern and Western Europe" (Bartlett and Seleny 1998 p. 329). Aided with tax allowances offered both by the central and the local government, Audi quickly expanded the factory and by 2000 the Győr plant became the biggest manufacturer of Audi engines in the world, and Hungary's largest exporter.

Another automotive investment in Hungary, the Suzuki plant in Esztergom offers further insights into how the demand for subsidies affected location decisions in the early years of transition, although unlike the previous cases, in a strict sense this investment did not develop from a brownfield project. The Japanese company entered the Hungarian market through a joint venture in the 1980s. Negotiations between Suzuki and the Hungarian government began already in 1985 and culminated in the formation of a joint venture company, Magyar Suzuki Rt., in which the Japanese firm had a 40 per cent stake. The other major shareholder was Autokonszern, a holding company established by the Ministry of Industry, of which objective was to create links between Suzuki and domestic engineering producers. The deal involved the construction of a new car plant in Esztergom, a small town located just 50 km north from Budapest, right next to the Slovak border. The town belongs to the heavily industrialized and, at least compared to Hungarian standards, well-developed region of Komárom-Esztergom, which also offers a large pool of skilled labour. The Japanese carmaker invested more than 260 million US dollars in the factory where production began in 1992 (Jakubiak et al. 2008). The state offered grants towards the cost of investing in the plant as well as a ten-year tax holiday and other tax concessions, which gave the investor a 22 per cent customs preference over other vehicle importers. In the end, Suzuki provided only 16.6 per cent of the joint venture's start-up capital (Swain 1998 p. 10).

As it has been documented by Werner (2003), when the president of Suzuki travelled to Budapest, he emphasized that the Hungarian government had to provide a generous incentive package before any investment would take place. Furthermore, when Suzuki learned that General Motors' Opel subsidiary had received higher levels of incentives for an earlier greenfield investment in Szentgotthárd located in the relatively wealthy Vas region next to the Austrian border, the Japanese management demanded the same terms to apply to Suzuki, too.

As Werner added, "the Hungarian government, well aware of the fact that the company could invest in any one of its neighbours, had no choice but to accommodate these demands" (2003 p. 14).

Although the privatization cases that have been discussed so far bear a common feature in that they all involved notable state subsidies for foreign investments carried out in relatively prosperous areas, they may not offer sufficient evidence for the argument that transnational companies took advantage of their superior bargaining position and thus prevented the promotion of backward regions. On the one hand, the above cases exclusively belong to the automotive sector, which certainly does not represent the full spectrum of foreign investors. On the other hand, each case constituted a unique agreement between the central government and the foreign company therefore they may be considered isolated examples.

Nevertheless, the car industry is especially relevant for regional development because it represents a complex industry which typically relies on a broad supplier network that extends to other segments of manufacturing such as the production of tyres or electrical equipment. In Western Europe, the major, so-called first-tier suppliers tend to locate in the vicinity of the plants (Larsson 2002). The same tendency of geographical clustering characterizes the automotive industry in the Visegrad countries as well. For instance, Škoda's supplier network is concentrated around the facility in Mlada Boleslav and along the highway linking the town with Prague and Germany (Pavlínek and Janák 2007). The same location pattern of first-tier suppliers appears in the case of the other major car plants in Poland (Volkswagen in Poznań, Volvo in Wrocław, Fiat in Bielsko-Biała), Slovakia (Volkswagen in Bratislava, Kia Motors in Žilina) and Hungary (Audi in Győr, Suzuki in Esztergom) as well (Pavlínek et al. 2009).

All of these factories are located in the more developed areas of the countries. To be sure, these regions are relatively wealthy also because of the presence of FDI but they were prosperous (at least in East Central European standards) even before the appearance of foreign investors. This circularity seems to reinforce the argument about path-dependent regional development. Yet, the case of the Polish Special Economic Zones reveals that transnational investors' location choices were not passive objects of path-dependency: instead, with the assistance of central governments, they actively shaped those processes that led to uneven regional development in the 1990s.

The idea of establishing Special Economic Zones in crisis-ridden or backward regions in Poland was formulated in 1992 when a group of Irish experts assessed the opportunities to develop the southeastern town of Mielec and its surroundings, which used to be the hub of Polish military industry but experienced deep economic decline after the change of regime (Nelson 2003). In this respect, the SEZ can be considered a mixed measure of regional development and investment policy.[32] The Ministry of Industry and Trade supported the plan of demarcating economic districts with special tax-free status to attract investors to disadvantaged regions. In 1994, the parliament adopted the law on Special Economic Zones and the first one, Euro-Park Mielec, opened its gates in 1995.

Because only few zones were operating in the first couple of years following the adoption of the law on SEZs, foreign investors looking for tax exemptions and other incentives were limited in their location choice. This is the reason why the Mielec district was the only SEZ established in a backward area which was able to generate considerable FDI inflows (Domański 2005; Gwosdz et al. 2008; Smętkowski 2002). The idea of promoting backward regions with place-specific incentives therefore worked but it was short-lived. The number of SEZs quickly grew and by 2000 there were seventeen zones established across the country[33] but only six of them were confined to a continuous territory: in reality, there were 68 separate areas with special economic status and their number increased to 158 by 2006 (Gwosdz et al. 2008 pp. 829–830). Moreover, most of the zones were founded in the relatively well-developed, industrialized central and western regions of Poland (Cieślik 2005) which contradicted the initial purpose of the SEZs.

Why did the Polish Special Economic Zones fail to promote development in backward areas? Or, to put it differently, why was the original idea dropped? On the one hand, local governments saw an opportunity in SEZs to boost economic development and began lobbying the central government for gaining this special status. On the other hand, the central government also considered the zones as an instrument of increasing its popularity and ensure social peace by granting SEZ status in "conflict areas" (Gwosdz et al. 2008 p. 831). The extension of the Tarnobrzeg zone to Ożarów Mazowiecki, a town located only 25 km west from Warsaw, is an example for those political games. In 2002, the local cable factory

[32] Because of this, the role of the zones will also be discussed in Chapter 4, which analyzes the regional development policies in the V4.
[33] Since 2000, the year when the number of SEZs expanded dramatically, no large investors have entered the Mielec zone (Gwosdz et al. 2008 p. 836).

abandoned production and lay off 900 workers. The trade union disputed the closure and initiated a permanent protest that blocked the gates of the plant for an entire year (Kosc 2003). To resolve the situation, the Minister of Economy decided to establish an SEZ within the territory of the cable factory to attract investors to the abandoned plant. This strategy paid off because in February, 2004, Thornmann Recycling, a German company, set up its business there, which was soon followed by five other firms.[34] It goes without saying that the area did not satisfy any of the criteria for establishing an SEZ as it is located within the Warsaw metropolitan district.

While local political interests and lobbying certainly played a role in the spread of the zones to those areas that according to the original concept would not have been eligible for the special status, transnational investors represented the most powerful forces against limiting the number of SEZs. In several instances, the already existing foreign-owned businesses pressurized local politicians and authorities to enlarge the territories of SEZs in order to include their plant expansions in the privileged zones (Domański 2005). Given that in most of the cases these companies were responsible for a substantial share of local employment, to avoid direct confrontation with the citizens and to decrease the risk of plant relocations, the central government accepted those demands.

For example, upon persistent pressure from FIAT, in 2000 the Polish government decided to create a Special Economic Zone in Bielsko-Biała, where the Italian carmaker planned to expand its factory. Because of the plant's inclusion into an SEZ, Fiat became entitled to a ten-year exemption from corporate income and real estate tax. The official argument for the provision of the generous fiscal incentives was that this was the only way to ensure an investment in a new engine production facility that would allow for the hiring of workers who had formerly been employed in the production of the Fiat 126 automobile (Dunin-Wasowicz et al. 2002). In a similar vein, in 1996, General Motors successfully lobbied for establishing an SEZ in Gliwice, in the relatively well-developed industrial area of Słask, even though the region did not fulfill the criteria for becoming a Special Economic Zone (Domański 2005). Moreover, in 2000, Philips managed to get its plant in Kwidzyn included into the Tczew-Zarnowiec Special Economic Zone, which incorporates the broad surroundings of Gdańsk, a well-developed industrial region. The Dutch company's success owed to its repeated threat of

[34] *Source*: First investor in Ożarów. *The Warsaw Voice*. 3 March, 2003 (Available at http://www.warsawvoice.pl/WVpage/pages/article.php/4950/article)

moving the production of television sets out of Poland if the government did not comply with its demands.[35]

A similar phenomenon with similar results has taken place in two entirely different environments: both in Hungary and Slovakia transnational companies were the main drivers behind the establishing of industrial parks. While Hungary introduced an industrial park programme soon after the change of regime, the legal basis in Slovakia was created only following the domestic shift in investment policy. The parks, which were not set up on the purpose of promoting the development of backward areas, were quickly captured by business interests.

In 2001, the Slovak government adopted law no. 193/2001 on industrial parks, which constituted a legal background for the provision of state support for those predominantly foreign-owned businesses that demanded subsidies for their planned plant extensions. According to this piece of legislation, Slovak industrial parks offer land at favourable conditions (low rental price, available transport and technical infrastructure, legal and logistical support) for prospective investors. As Lesakova (2008) documented it, the successful parks in Slovakia, which were able to attract a high number of investors, are almost exclusively located in the more developed western parts of the country. Moreover, the creation of these zones has been assisted by transnational companies that had already been operating in the vicinity and either they or their suppliers set up new facilities in those parks. For instance, Volkswagen contributed to the establishing of the industrial park in Zahorie (Trnavsky district) while Peugeot was behind the founding of the park in Trnava (Trnavsky district) and Kia supported the Žilina industrial park (Žilinský district).

As already mentioned, Hungary was the only country among the V4 that consistently offered incentives to foreign businesses after and, to a smaller extent, even before the change of regime. Hungarian privatization schemes were also open to foreigners thus compared to the other Visegrad states, the country provided a radically different investment climate in the 1990s. The Hungarian approach to FDI thus lent itself to the preferences of investors at the expense of lagging behind regions in a period when competition for investments among the V4 was less tough than in the 2000s. This is the reason for the appallingly uneven location

[35] *Source*: Philips threatens to leave Poland if tax breaks refused. *Warsaw Business Journal*, 9 November 2000, p. 7.

pattern of FDI there: by 1998, 71.4 percent of total FDI stock had been accumulated by the three richest regions (Budapest, Győr-Moson-Sopron and Fejér).[36]

The Hungarian case also demonstrates that investment incentives offered early on to investors without any territorial restrictions do everything but reduce regional disparities. Because the authorities did not tie the incentives to specific sites, investors were able to take advantage of the benefits by setting up their production plants at the best locations without any administrative limitations. They were not constrained to choose a more backward area in order to be entitled to preferential treatment.[37]

The origins of the Hungarian incentive schemes reach back to the 1980s. The government introduced the so-called industrial free trade zones (IFTZs) already in 1982 with the objective of attracting export-oriented, high-technology FDI (Antalóczy and Sass 2001). The regulation of these zones allowed for companies to set up under license by the customs and finance authorities their own zones of production anywhere without geographical restrictions (Guagliano and Riela 2005; Kárpáti 2003). IFTZs were "considered to be extra-territorial for the purposes of duties, foreign exchange and other legislation" (Antalóczy and Sass 2001 p. 45).

The zones were highly attractive for export-oriented greenfield investors because they guaranteed exemption from duties and VAT. Moreover, these companies did not have to face currency risks as they could keep their accounts in foreign currencies. "First, a number of large TNCs carried out greenfield investment in Hungary in an IFTZ (for example General Motors, Suzuki, and Phillips). Later, their competitors or suppliers followed them and established their Hungarian affiliates" (Antalóczy and Sass 2001 p. 46). However, the zones showed a high level of territorial concentration: investors preferred to set up their IFTZs either in Budapest or in the western regions close to the Austrian border. The regulation of IFTZs did not stipulate any place-specific restrictions. In other words, investors were free to choose the sites of the free trade zones. Because of this, they preferred to locate in the more developed, wealthier Hungarian regions and thereby generated additional economic activity in

[36] *Source*: the author's own calculation based on Hungarian Central Bank data
[37] Although the Polish example shows that even attempts of promoting disadvantaged locations failed to withstand the lobbying power of transnational companies.

relatively prosperous areas. In sum, the experiment with IFTZs reinforced existing territorial disparities (OECD 2001).

Moreover, some local initiatives further strengthened the pattern of uneven distribution of foreign investment. Several local governments such as the towns of Székesfehérvár (Fejér county) and Tatabánya (Komárom-Esztergom county), which were already preferred targets of investors, were among the first to grant tax exemptions from local taxes for foreign businesses (OECD 2001). Both towns attracted FDI inflows because of their notable industrial traditions, skilled workforce, and proximity to Budapest and western European markets. The local incentives therefore provided additional benefits to investors and, indirectly, increased the disadvantageous position of backward locations.

In the early 1990s, another systematic measure worked in favour of the more developed regions: the Hungarian government adopted an industrial park programme in 1992. The role of these parks was similar to that of the IFTZs: investors received fiscal benefits if they located their production there. The first industrial parks were founded in the towns of Győr and Székesfehérvár, which, apart from Budapest, are situated in the two most developed regions of Hungary (in Győr-Moson-Sopron and Fejér, respectively). In the first years of the programme, industrial parks were exclusively established in western and central Hungary and only after 1998 they tended to appear in the poorer eastern regions (Guagliano and Riela 2005).

Providing support for backward areas in terms of investment incentives did not appear on the Hungarian political agenda until 1998. As of that year, companies locating in regions with an unemployment rate higher than 15 per cent were entitled to receive full exemption from paying corporate taxes for a period of 10 years if the investment exceeded 3 billion Hungarian forints (approximately 15 million US dollars) and created more than 100 jobs (OECD 2001). However, this measure came late because the Central European investment environment was about to change: the intensifying FDI promotion activities in the V4 and the heightened investment competition privileged those regions that offered better endowments. Again, the political and the economic circumstances did not favour the backward areas.

On the one hand, the above detailed cases highlight that by acquiring existing plants, foreign investors entered into relatively more developed regions with an already established industrial

and labour base. The individual deals of privatization included generous benefits to foreign investors, which were expected to preserve jobs at the declining SOEs. As foreigners set foot in the domestic markets, they successfully lobbied the central governments for more fiscal and financial support, which allowed for plant expansions that attracted further, related investments. On the other hand, greenfield investments were also taking place at the relatively risk-free, wealthier regions, which at the same time offered better infrastructure and transport connections to the core western markets. In the 1990s, both in the case of privatization and greenfield projects, transnational companies were in a better bargaining position than the national governments. This occurred in spite of the fact that in this period the Visegrad countries were rather reluctant to invite foreign investors into their domestic economies.

The systematic provision of incentives in Hungary also benefited the more prosperous regions: since the incentives did not come with place-specific strings attached, foreign investors were free to choose their investment sites. In this way, the Hungarian system was unintentionally strengthening the position of the already developed regions. In contrast, Poland experimented with place-specific investment incentives with the purpose of enhancing regional development in backward areas. However, the Polish Special Economic Zones did not fulfill these hopes because both the local governments and large foreign investors demanded the extension of the zones which resulted in their dramatic expansion. In the end, SEZs lost their original profile of promoting disadvantaged locations.

It seems that in the 1990s neither place-specific nor general investment promotion assisted the development of backward areas. Why did attempts to promote less developed areas fail? First, such initiatives were scarce as with the exception of Poland, the other Visegrad countries did not even introduce fully-fledged place-specific incentives. Second, the shortage of domestic capital, the desperate need for fast economic restructuring, the demanding integration process into the European and to the global markets and the external influence of the European Union and other international organizations, which indirectly backed the interests of transnational companies, placed the Visegrad countries into asymmetric bargaining positions *vis-à-vis* foreign investors. These factors together determined that investors were able to behave according to their best interests and picked regions with the best endowments. As the next section demonstrates, the run-up to EU accession and the regulatory convergence on EU rules further strengthened foreigners and at the same time adversely affected backward regions.

## 3.3 Location pattern of FDI in the 2000s

Chapter 2 argued that at the end of the 1990s the European Union triggered a major shift in the investment policies of the Visegrad countries. Since then, these economies have been relying on foreign capital inflows attracted both by the generous investment incentives and the V4's huge cost advantages in production. Furthermore, in the 2000s, the European Commission's practice of approving most of the introduced incentive schemes has intensified rather than limited investment competition among the V4. How did these factors shape the location choices of foreign investors, which, unlike in the 1990s, mostly engaged in greenfield projects?

On the one hand, efficiency-seeking multinational enterprises were compelled to relocate production from west to east and many non-European companies also chose to set up their plants in one of the heavily subsidized regions of the V4. On the other hand, the intra-V4 competition for foreign investors was detrimental to lagging behind areas: when investors decided about where to locate within the Visegrad group, they preferred to enter the more prosperous regions because they offered comparable degrees of investment incentives but far better regional endowments than backward regions. The following paragraphs bring empirical evidence in support of this argument.

It was an important element of the domestic policy shifts in favour of FDI that the national investment promotion agencies became central actors in the process of securing foreign capital inflows. The role of these bodies is to advertise domestic investment opportunities abroad and negotiate with potential investors, thus their activities have become key components of FDI promotion. The representatives of these agencies offer valuable insights into the workings of this system. Perhaps unsurprisingly, the director of each Visegrad agency shares the view that competition for investments is taking place on a global scale but at the same time they consider the other East Central European countries their main rivals for foreign capital. The CEO of SARIO[38], the Slovak agency expressed that, "we primarily compete with our neighbours but competition for investment is taking place in a much broader context" (Interview SARIO 2012). Regarding the fierce intra-V4 competition, the former CEO of the Hungarian agency drew the following comparison:

[38] SARIO is the successor of the Slovak National Agency for Foreign Investment and Development, which was established in 1991 (Trník 2007).

> There are four vendors in the market offering similar products at similar prices and their booths stand side by side. Prospective customers check each of them and will choose the one that offers the best deal. All in all, there is a fierce rivalry for FDI among the V4. In the case of big projects these countries do everything to secure investments. The more high-skilled, high-tech sector in which the investment would take place, the more attractive the project will be for the governments. (Interview ITDHa 2012)

The representatives of PAIiIZ, the Polish agency added that "in the last decade there has been a very strong competition among the V4 for investments because each of us wants to attract the same investors. What is more, these countries promote themselves in the same international events, and sometimes they even use the same slogans" (Interview PAIiIZ 2011). This is confirmed by the FDI figures in the previous chapter (Figure 2.7 and Table 2.2) which revealed that in terms of the sectoral profile of foreign investors, the Visegrad countries have been highly similar to each other.

As a consequence, investment competition is advantageous for foreign investors which enjoy the benefits of the bidding war. The former investment director of ITD Hungary explained that multinational enterprises were to a great extent responsible for this outcome:

> Most [greenfield] investors are primarily interested in producing not only for the domestic but for broader markets. This means that their location choice is flexible. As there is a tough investment competition among the V4, the multinationals are able to take advantage of it and generate even greater competition. For instance, the Czech Republic and Hungary provide very similar economic conditions for investors and under those circumstances incentives make the difference. The greater the value of the prospective investment, the greater the competition becomes. (Interview ITDHb 2012)

Foreign investors use the process of site selection to squeeze as much fiscal and financial support from the governments as possible. In the first phase, they compile a list of potential investment locations, which are then rigorously evaluated according to the specific criteria posed by the investor. In the second phase, the most promising locations that offer the greatest advantages remain on the shortlist (Interview CzechInvest 2011). Once the pre-selection is complete, the investor will consider the availability of incentives that the governments of the

shortlisted sites are willing to provide. At this stage of the decision-making process, "incentives and other discretionary government policies to attract FDI [...] can be decisive in investors' location decisions" (Oman 2000 p. 115). However, as the director of SARIO explained, there is a further twist in the process: "if all shortlisted countries offer the maximum aid possible, in the end that site wins which has the greatest locational advantages" (Interview SARIO 2012). This leads to the consequence that investment competition strengthens the chances of prosperous regions for securing FDI and at the same time weakens the lagging behind regions. The following cases from the light and complex manufacturing industries and the service sector show how this sequence plays out in practice.

In 2002, Toyota and Peugeot Citroën (TPCA business concern) decided to build its eastern European factory in the Czech Republic. The company chose the town of Kolín for its 700 million euro investment, which is located 70 km east from Prague, in the Středočeský region, the second richest in the country. As Kolesár (2006) documented it, Poland and Hungary were also competing for the investment and Poland seemed to be a strong favourite due to the existence of two Toyota plants there. However, the management of TPCA chose the Czech Republic instead. The Czech government was reported to grant incentives that amounted to 15 per cent of the total cost of the investment. Besides tax concessions, the offer included subsidies for the creation of new jobs, infrastructure building and the purchase of land below the market price. The former director of the Hungarian investment promotion agency recalls that even though TPCA was seriously considering establishing its factory in Hungary, the management dropped the country from the list mainly because the Czech offer was more favourable (Interview ITDHb 2012).

Soon after TPCA concluded its project in the Czech Republic, the Peugeot – Citroën concern (PSA) began a site search for its new operation. Similar to the previous case, locations across the V4 were competing for the investment: Žatec in the Czech Republic, Radomsko in Poland, and Trnava in Slovakia. Since PSA considered it risky to build two plants in the proximity of each other in the same country, the Czech Republic was dropped from the list but both the Polish and the Slovak governments were eager to secure the investment. In the end, the French transnational company chose to locate in Slovakia in return for a government grant of 6.5 billion Slovak crowns (about 168 million EUR that covered approximately 24 per cent of the total value of the planned investment). As Zachar (2004) took note of, the Slovak government agreed to build the full infrastructure (utility networks, road and railway

connection) around the investment site near the town of Trnava, which, not too surprisingly, is located in the well-developed western part of Slovakia, in the proximity of Bratislava.

The Slovak government was particularly generous in the case of the Hyundai/KIA investment. In the early 2000s, the South Korean company decided to locate part of its production in Europe. Initially, the management was considering six countries: besides the V4, Slovenia and Romania were shortlisted. In March 2004, the Korean company announced that they would build their first European plant in Žilina, in western Slovakia. According to the agreement, the total public expenditures supporting the investment reached 8.83 billion Slovak crowns (229 million EUR), about 20 per cent of the total investment value (Kolesár 2006). Furthermore, the deal also specified the construction of a 42 km long highway, which involved an additional state expenditure of 22 billion Slovak crowns (569 million EUR). The question poses itself: "If the state had to be so generous to attract an investor to a well-developed region [...], what will it have to offer to bring other investors to less developed regions?" (Zachar 2004 p. 41).

In 2007, the European Commission approved state aid for another major investment of the Hyundai/KIA conglomerate in Nošovice (Moravskoslezsky region), the Czech Republic. The construction of the new car plant received 172.5 million euro support from the Czech authorities, which represented 15 percent of the total investment value.[39] Because the Slovak and the Czech factory are just 90 km far from each other, the suppliers may set up their businesses in the vicinity of either of the two locations. This, however, further increases the bargaining power of subsequent investors assuming that both central governments are eager to secure further manufacturing investments. Indeed, two main suppliers of Hyundai, Sungwoo Hitech and Plakor located their production near the Nošovice plant for which they received an unusually high 41 and 46 percent of state aid, respectively.[40] In at least one of these cases the investor's location decision was motivated purely by the higher level of incentives offered by the Czech government.[41]



[39] Investment incentives for Hyundai Motor Manufacturing – stat aid N661/2006, *European Commission*, Brussels, 10 May 2007

[40] MF6/2007 (Songwoo Hitech) and MF9/2007 (Plakor) - The European Commission's transparency system for regional aid for large investment projects (Available at http://ec.europa.eu/competition/state_aid/register/msf_2014.pdf)

[41] Balogová, B.: Incentive dispute may land Slovakia in Washington, *The Slovak Spectator*, 10 April 2006 (Available at: http://spectator.sme.sk/articles/view/23019/3/)

Perhaps one of the most infamous investment stories in the 2000s was the project of Hankook, which clearly shows how incentives mattered for location decisions**.** Hankook Tire is a South Korean multinational and the main tyre supplier of Hyundai/KIA thus it seemed reasonable to build its new factory in Slovakia although other locations in Poland and Hungary were also considered. In May, 2005 Hankook announced to have chosen the town of Levice in the Nitra district in Slovakia for the site of investment. However, media reports revealed that the incentives offered by the government in the form of tax breaks and cash grants were more than twice the amount of the second best Polish offer of 46 million euro.[42] The political scandal that followed forced the Slovak government to withdraw the incentives.

While the management of the Korean company was deeply disappointed with these developments, negotiations with the other candidates resumed. After the second round of talks, Hankook decided to build its plant in Dunaújváros, Hungary. The town, which was the industrial powerhouse of Hungary during the communist period, is located in the region of Fejér, in the vicinity of Budapest. Fejér is among the most developed regions in Hungary offering highly skilled, cheap labour force and good infrastructure and has been one of the primary targets of foreign investors since the change of regime. According to the deal made between Hankook and the Hungarian government, state assistance for the investment amounted to 56 million euro or 12 per cent of the total investment value (Kolesár 2006). The creation of a single job in the factory thus cost approximately 37 thousand euro for the government, which is about 100 times of the Hungarian minimum wage.[43]

Although Poland also competed for this investment, the Polish offer did not match the Hungarian one. As Sebastian Mikosz, the Vice President of PAIiIZ commented on Hankook's decision, "the investor seems not to be interested in any infrastructure and the only thing it is asking for is money. That's why Poland will not take part in such a game". Jana Viskova, the spokesperson of CzechInvest revealed that a standard offer was made to Hankook and that "we cannot offer more than what they are entitled to, according to Czech laws".[44] Reflecting on the events, the former director of ITD Hungary claimed that "the project was severely criticized mainly because of political reasons but it is also true that Hankook received an

[42] Balogová, B.: Hankook tags Slovakia, *The Slovak Spectator*, 9 May 2005. (Available at http://spectator.sme.sk/articles/view/19700/1/)
[43] Jámbor, G.: Kóka 15,8 milliárdot adott a Hankooknak [Kóka gave 15.8 billion HUF to Hankook], *Magyar Nemzet*, 12 December 2005 (Available at: http://mno.hu/migr/koka-158-milliardot-adott-a-hankooknak-546435)
[44] Hankook Tire drops Slovakia as plant site. *The Korea Herald*, 20 October 2005

unusually high amount of support from the government. The reason for this was that Hankook applied an excellent negotiation strategy: the South-Korean firm was able to take advantage of the fact that each candidate was very much eager to secure this investment" (Interview ITDHb 2012).

Recently, Hungary has secured another major tyre manufacturing investment as in September 2014 the European Commission approved state aid[45] granted to Apollo Tyres, the Indian multinational company that decided to build its new factory in Gyöngyöshalász (Heves county). The site of the investment is 80 km east from Budapest and is conveniently connected with a highway. Although Heves belongs to the less prosperous regions, the area where Apollo Tyres will build the plant has already attracted several large investors (such as Robert Bosch) because of its proximity to the capital city. According to the deal, the Indian investor will receive 95.7 million euro of state aid in the form of cash grants, tax relief and aid for job creation. The incentives represent 20 percent of the total investment value.[46]

However, the selection of the site did not proceed as smoothly as one may think. In February, 2008 the Hungarian Prime Minister, Ferenc Gyurcsány announced in a press conference in New Delhi that an agreement had been reached with the Indian investor according to which it would build its first European greenfield factory in Gyöngyös.[47] Yet, by referring to the potential environmental hazard that the plant would represent, a series of local protests and an initiative of public referendum was organized by the local branch of Fidesz, the largest right-wing party in opposition.[48] In the end, the Indian management dropped the plan both because of the protests and because of the changing market environment as a result of the global financial and economic crisis. However, a few years later the Indian company re-launched the site-search and again shortlisted Gyöngyöshalász and another location in Šaľa, southwest Slovakia. This time Fidesz was the leading governing party in Hungary and, surprisingly, none of its politicians expressed any signs of environmental concerns in connection with the



[45] SA.38986 - Aid to Apollo Tyres (Hungary) Kft (Available at http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_38986)
[46] State aid: Commission endorses investment aid to Apollo Hungary for production of tyres in Gyöngyöshalász, *European Commission Press Release*, IP14/970, Brussels, 8 September 2014 (Available at: http://europa.eu/rapid/press-release_IP-14-970_en.htm)
[47] Magyarországra jön az Apollo Tyres indiai gumiabroncs gyár [Apollo Tyres invests in Hungary], *hvg.hu*, 15 August 2008. (Available at http://hvg.hu/gazdasag/20080116_apollo_tyres_india_gumiabroncs_gyar/)
[48] Népszavazást kezdeményez a Fidesz gumigyár-ügyben [Fidesz initiates referendum regarding the tyre factory], *fidesz.hu*, 30 May 2008. (Available at http://www.fidesz.hu/hirek/2008-05-30/nepszavazast-kezdemenyez-a-fidesz-gumigyar-ugyben/)

same investment they were opposing a few years before. What is more, the government granted special status for the project, which involves faster handling of administrative issues related to the investment.[49] According to Slovak media reports, the decision for the Hungarian location was motivated by the lower taxes and the higher level of state aid compared to the Slovak offer.[50]

The recent Mercedes investment in Hungary also highlights the role of incentives for securing FDI and at the same time shows why remote and backward regions are unlikely to attract major investments under the current circumstances. In June 2008, the management of Mercedes announced that the company would build its first eastern European factory in Hungary. This came as a surprise because initially Poland and Romania were the favourites for one of the biggest automotive investments in the region. The German multinational was planning to invest about 800 million euro and employ 2500 people in the new plant but through the suppliers the investment was estimated to generate about 10 thousand indirect jobs. According to media reports, Hungary offered the maximum possible support for the plant: the total incentives reached 111.5 million euro, which were subsequently approved by the European Commission.[51]

However, as the former director of ITD Hungary recalled, the German manufacturer did not even consider investing in Hungary, at least initially.

> The Germans wanted to invest either in Slovakia, Poland or in Romania. When we got to know about these plans, we immediately tried to reach the Mercedes management. We persuaded the Hungarian Prime Minister, Ferenc Gyurcsány, to inform the Prime Minister of Baden Württemberg during his Hungarian visit that we would welcome the investment. Soon after this event, we received an invitation to Munich to present our offer at the company's headquarters. Even though we were late by almost half a year as negotiations with the other candidates were already underway, we managed to win the contest. (Interview ITDHb 2012)



[49] Government Decree No. 259/2014. *Magyar Közlöny* , 139/2014, pp. 14101-14102 (Available at: http://www.kozlonyok.hu/nkonline/MKPDF/hiteles/MK14139.pdf)
[50] Maďari nás obrali o stámilióny [Hungarians took hundreds of millions from us], *Hospodasrke noviny on-line*, 30 May, 2014. (Available at http://hn.hnonline.sk/ekonomika-a-firmy-117/madari-nas-obrali-o-stamiliony-619449)
[51] Uniós engedély a magyarországi Mercedes gyár támogatására [EU approves state aid for the Hungarian Mercedes factory], *HVG online*, 16 July 2009.

Hungary offered two sites to Mercedes. One of them, Zalaegerszeg is located close to the Austrian border, while the other one, Kecskemét is in central Hungary and enjoys excellent transport connections to Budapest. The former CEO of ITD Hungary revealed that the "German managers were truly impressed by the fact that after landing in Budapest, they arrived at Kecskemét in 45 minutes by car" (Interview ITDHa 2012). Considering that the town may also draw from a large pool of labour due to its proximity to Budapest, the Germans chose to build their plant in Kecskemét. The Hungarian government offered nearly 30 billion HUF (112 million euro) for Mercedes in cash grants and in tax allowance, which covered 20 per cent of the total investment value. In addition, the deal also included the building of a railway access to the factory, which would cost another 4.7 million euro.[52] Although the Bács-Kiskun region, where the investment has been made, is not among the wealthiest in Hungary, Kecskemét's proximity to the capital city and its excellent transport connections qualifies the northern part of this region for attracting large investment projects. In this sense, the town belongs to the agglomeration of Budapest, which implies that the case of the Mercedes plant does not deviate from the general location pattern of foreign investors in East Central Europe: they chose to enter a relatively well-developed area that offers favourable endowments.

The following cases demonstrate that incentives played a key role for foreign investors' location choices not only in the automotive but also in the electronics sector. Sony entered Slovakia in 1996 when the Japanese multinational built a plant in Trnava for producing TV set components. In 2006, the management decided to build another factory for manufacturing LCD televisions and a logistic and supply center as well in Slovakia. The company chose to locate the 74 million euro investment, which was expected to employ 3000 workers, in the Nitra industrial park which lies only 95 km east from Bratislava.[53]

During the negotiations with the Slovak government, the Japanese firm demanded an exceptionally high level of state aid: Sony asked the authorities to cover 42 percent of the total costs of the investment. In the end, the aid intensity of the project reached 35 percent.[54] The Slovak government granted the aid in spite of the fact that Sony closed down the factory in Trnava and only half of the workers were transferred to the new production site in Nitra.

[52] State Aid N671/2008 - Aid to Mercedes-Benz Manufacturing Hungary. *European Commission Competition DG*. Brussels, C(2009)
[53] *Source*: http://www.eurofound.europa.eu/emcc/erm/factsheets/7935/Sony%20Slovakia (Accessed 21 October 2014)
[54] SA.32625 – The European Commission's transparency system for regional aid for large investment projects (Available at http://ec.europa.eu/competition/state_aid/register/msf_2014.pdf)

Year 2010 brought a further twist to the story when Foxconn acquired the Nitra plant. Because of the declining orders for the company's products, in February 2012 the new management announced the layoff of nearly one third of the workers, even though the plant was already employing only half of the originally planned workforce.[55]

In 2006, another major global player in the electronics industry, the South Korean Samsung received generous state aid from the Slovak government for building an LCD TV set production plant in Voderady, near the city of Trnava in western Slovakia. The investment was part of a grouping of nine related investments (mostly involving firms that are the suppliers of Samsung) within a distance of one km from the main factory. The European Commission justified the aid of 65.1 million euro (aid intensity reached 22 percent) by referring to western Slovakia as a region "with large socio-economic handicaps" and claiming that the investment will contribute to "regional development in a disadvantaged region".[56]

Although from a European perspective the Commission's claims hold, the economic position of the Trnavsky region *within* Slovakia reveals the striking ambiguity of this argumentation and also highlights why the regional aid ceilings set by the EU do not serve the interests of the most backward regions in East Central Europe. In 2006, the per capita GDP in the Trnavsky region was 118 percent of the Slovak average, while the registered unemployment rate reached 5.22 percent, which was nearly half of the 9.4 percent measured at the national level.[57] In spite of this, between 2004 and 2006 the aid ceiling of the Trnavsky region was the same as in the most backward areas of the country (50 percent) and it was only 10 percent lower in 2007-2013.

The above detailed cases highlighted the consequences of intra-V4 investment competition with regards to location choices of multinational companies. There is a simple lesson to draw from these cases: the higher the value of the planned investment, the tougher the competition for it and the more likely that the winner will be a well-developed region with superior infrastructure and factor endowments. However, there is another aspect of this process which appears in an east-west relation: evidence shows that relocation of industrial activity from Western to Eastern Europe has been taking place, which is facilitated by the EU-imposed gap between the regional aid ceilings of the two sides of the continent.



[55] Foxconn lays off nearly 500 employees in Nitra. *The Slovak Spectator*, 8 February 2012 (Available at http://spectator.sme.sk/articles/view/45306/10/foxconn_lays_off_nearly_500_employees_in_nitra.html)
[56] Aid to Samsung Electronics LCD Slovakia (State Aid N847/2006), *European Commission*, Brussels, 2 July 2006, pp. 9-10.
[57] *Source*: the author's own calculation based on data from the Central Statistical Office of Slovakia

In her research, Šćepanović (2013) convincingly demonstrated how relocation has affected the European automotive industry but other sectors offer similar empirical evidence as well. For instance, in 2009, Givaudan, the Swiss flavouring and fragrance manufacturer announced that it would set up its new production plant in Makó, Hungary. At the same time, by the end of 2013 the Swiss firm would close its plant in Bromborough, North-West England. The company's investment in Makó reached 62 million euro, 45 per cent of which has been covered by the Hungarian government's fiscal incentive.[58] The relocation of production from England involved the shift of 150 jobs to the new plant.

The case was debated even in the European Parliament when British MEP Arlene McCarthy inquired about the actions the Commission would take to ensure that no improper state aid would be provided to Givaudan, given that the investment would cause the loss of jobs in England.[59] Competition commissioner Joaquin Almunia replied that the state aid was granted lawfully, in compliance with the regional aid guidelines. He added that "regional aid aims at developing less developed areas of the European Union by supporting investments and job creation" and that the Commission "has no authority to interfere with decisions taken by private companies concerning closure, restructuring or relocation of establishments".[60] Although in this particular case an indeed backward Hungarian region benefited from the investment, the economic rationality of the relocation remains doubtful. The Swiss company uses British-grown vegetables for its products, which are then further processed by a UK-based crisp factory. In practice this means that the raw inputs are supplied from the UK to Hungary only to transport the final products back to the United Kingdom.[61]

The circumstances of one of the largest recent investments in the Polish food factory resemble Givaudan's entry to the Hungarian market. The UK-based Cadbury built its first Polish chocolate factory in Bielany Wrocławskie (near the city of Wrocław) in 1993 and a few years later the company acquired the historic Polish brand Wedel, together with its Warsaw-based facility. Since then, the management has heavily invested in its Polish subsidiaries and in 2006 the company's spokesperson announced that they would expand the existing plant in Bielany Wrocławskie and would also open a new plant in Skarbimierz (Opolskie voivodship)

[58] MF41/2009 - "Transparency system" for regional aid for large investment projects, *European Commission*. Available at http://ec.europa.eu/competition/state_aid/register/msf_2013.pdf
[59] Question for written answer to the Commission, E-009357/2011
[60] Answer given by Mr Almunia on behalf of the Commission, E-009357/2011
[61] Mullaney, Lorraine: Walkers crisp supplier to move 150 jobs to Hungary, *foodmanufacture.co.uk*, 27 March 2013. Available at http://www.foodmanufacture.co.uk/Business-News/Walkers-crisps-supplier-to-move-150-jobs-to-Hungary

for producing chewing gums.[62] For the two investments, Cadbury received a state aid of 62.3 million euro, which amounted to 18.3 percent of the total costs.[63] The director of the investment programme at Cadbury revealed that the choice of Skarbimierz for the new plant was influenced by good road infrastructure, the availability of highly qualified workforce and the "large support from the local authorities that the company received when taking interest in the region".[64] Indeed, the Polish government enlarged the Wałbrzych Special Economic Zone with the grounds of the plant so that Cadbury would be entitled to further tax benefits – in fact, the company posed the establishing of an SEZ in Skarbimierz as a condition of the investment.[65]

However, the fiscal and financial support provided by the Polish government indirectly financed the closure of Cadbury's factory in Keynsham where production began already in 1935. In 2007, the firm's management announced a major reorganization, which involved the closure of the Keynsham plant and the layoff of about 500 workers and the move of production to the new facility in Poland. According to the national organizer for food and agriculture of Unite, Britain's biggest trade union, the company "always told Keynsham was safe because there was no capacity to make its products elsewhere. It seems that the truth is that means no capacity in the UK but plenty in Poland".[66]

Ironically, the case of Givaudan and Cadbury-Wedel highlight that the EU's competition policy, which has been designed to eliminate all potentially market distorting interventions, is actually creating some further distortions. An inherent tension characterizes the current investment regime of the EU: enhancing the development of backward areas with administrative measures is contradictory to the logic of free markets which the competition policy is supposed to ensure. Moreover, because of their comparative cost advantages, East Central European regions already enjoy a competitive edge over most western European locations. Therefore, in principle, they would not need incentives to attract investors.



[62] Cadbury opens its 3rd factory in Poland, *PAIiIZ Press Release*, 11 February 2009 (Available at: http://www.paiz.gov.pl/nowosci/?id_news=2034)
[63] MF27/2009 and MF28/2009 - The European Commission's transparency system for regional aid for large investment projects (Available at http://ec.europa.eu/competition/state_aid/register/msf_2014.pdf)
[64] Investment agreement with Cadbury Schweppes signed!, PAIiIZ Press Release, 24 February 2006 (Available at http://www.paiz.gov.pl/nowosci/?id_news=877)
[65] Cadbury Boost for Opole, *The Warsaw Voice*, 11 October 2006 (Available at http://www.warsawvoice.pl/WVpage/pages/article.php/12623/article) and Cadbury Schweppes chose an investment location, PAIiIZ *Press Release*, 20 February 2006 (Available at http://www.paiz.gov.pl/nowosci/?id_news=867)
[66] Confectionary giant Cadbury Schweppes is to close its Keynsham factory, near Bristol, by 2010 with the loss of about 500 jobs, *BBC News*, 3 October 2007 (Available at http://news.bbc.co.uk/2/hi/business/7025413.stm)

The last manufacturing case to be discussed incorporates all the main points that have been raised so far. In autumn 2007, Dell opened its second European manufacturing plant in the Łódz Special Economic Zone in Poland. The US-based electronics manufacturer invested 190 million euro[67] in the new facility, which was expected to create about 2500 direct and 1300 indirect jobs. State aid for the project came in various forms (cash grants, tax exemptions, land sale at a reduced price, relocation of a high-voltage energy supply line) and amounted to 53 million euro, or nearly 30 per cent of the total investment value.[68] Because Dell's investment qualified as a large investment project receiving aid above the notification threshold, the European Commission had to initiate a formal investigation procedure to determine whether the aid complied with EU law. In September, 2009 the Commission concluded that the proposed aid fulfilled all the conditions for providing regional aid for large investment projects thus it was compatible with the common market.

The investment involved plant relocation from Western to Eastern Europe and a fierce rivalry as well between two shortlisted sites in the Visegrad countries. On the one hand, shortly after the Łódz plant opened its gates, Dell decided to close its factory in Limerick, Ireland. Kathy Sinnott, an Irish member of the European Parliament expressed her concerns about Dell's move and criticized the fact that Polish authorities were able to provide aid to the investor whereas according to the EU's regional aid guidelines, it was not possible to offer such an aid in Ireland.[69] On the other hand, it was later revealed that Dell shortlisted two sites for closer examination: Łódz in Poland and Nitra in Slovakia. The Commission's analysis of the project found that had there been no incentives offered, then "it would have been more advantageous for Dell to locate the project in Nitra rather than in Łódź".[70] In other words, the Polish offer outbid the Slovak one and the generosity of incentives determined Dell's location choice.

By taking a look at both shortlisted sites it becomes clear that each of them belong to the more developed parts of their countries. Nitra lies in prosperous western Slovakia, while Łódz, once a main hub of the Polish textile industry, enjoys a central location as it is situated between Warsaw and Poznan. Even though the city's broader neighbourhood is relatively backward, Łódz and its immediate surrounding belongs to the ten richest regions of Poland. In short,

[67] Net present value in 2009 prices
[68] Commission decision on the aid which Poland is planning to implement for Dell Products (Poland) Sp. z o.o. C 46/2008 (ex N 775/2007). Available at http://ec.europa.eu/competition/state_aid/cases/228778/228778_997189_81_1.pdf
[69] Commission decision on the aid which Poland is planning to implement for Dell Products (Poland) Sp. z o.o. C 46/2008 (ex N 775/2007), p. 10.
[70] Ibid., p. 33.

even without incentives, both locations provide substantial advantages for foreign investors. Indeed, even the representative of Dell's main competitor, HP, confirmed that "Dell was pursuing a rational economic course that it would have followed without any state aid".[71]

All of the above examples belong to the manufacturing sector, which, until recently, was responsible for the lion's share of foreign investment inflows to the Visegrad states. However, since the mid-2000s and especially after the financial and economic crisis of 2007-2008, the service sector took the lead thus it is essential to examine the link between incentives and the location patterns of FDI in services. According to a CzechInvest report, 98 percent of all the Czech investments that received state aid were carried out in the manufacturing sector in 2001, but by 2008 this share dropped to 38 percent. At the same time, the share of aided investments realized in business support services jumped to 28 percent.[72] Indeed, the establishing of service centers in the V4 has become one of the main sources of FDI and even in global terms the Eastern European region has emerged as a primary target for IT and business process outsourcing. Seven Visegrad cities appear in the 2013 Tholons ranking of the top 100 global outsourcing destinations (Cracow (10$^{th}$ place), Prague (17$^{th}$ position), Budapest (28$^{th}$), Brno (30$^{th}$), Warsaw (36$^{th}$), Bratislava (47$^{th}$), Wrocław (75$^{th}$)) which suggests that investment in this sector mainly takes place in large urban agglomerations.[73]

Data on the spatial distribution of the service centers confirm the above suspicion: they are almost exclusively located in metropolitan zones with which these investments reinforce existing regional disparities. However, it is not too surprising that investors in this sector enter those areas: they look for excellent infrastructure and a large pool of highly qualified workforce which are available in great supply only in big cities. More interestingly, the location pattern of service centers also corresponds to the east-west divide within the V4 in that most of these units have been established in the more developed, western areas of the countries.

For instance, in 2009, half of the 50 shared service centers and customer contact centers in the Czech Republic were located in Prague, twelve in Brno and four investors established offices



[71] Ibid., p. 34.
[72] Business Support Services in the Czech Republic (2009), CzechInvest Report (Available at http://www.czechinvest.org/data/files/bss-764-en.pdf)
[73] *2013 Top 100 Outsourcing Destinations. Rankings and Report Overview* (2013). Tholons Publication (Available at: http://www.tholons.com/TholonsTop100/pdf/Tholons%20Top%20100%202013_Rankings%20and%20Report%20Overview.pdf)

in both cities.[74] Hungary shows a similar picture as "Budapest hosts the overwhelming majority of these companies" and the only reason for leaving the city is "the increasing shortage of suitable workers in Budapest" (Sass 2011 p. 67). In Slovakia, 43 major IT, financial or other service centers were operating in 2013. Out of these, 28 were located in Bratislava, another six had offices both in the capital city and in another town and only three pursued business exclusively in Košice, the biggest city in Eastern Slovakia and the second largest one in the country.[75] Poland offers the most instructive case in this respect because large metropolitan areas are evenly spread out across its territory. However, service centers seem to avoid the east: in 2012, 58 percent of all the 608 offices were operating in the cities of Cracow, Gdańsk, Poznań, Warsaw and Wrocław and only 13 percent located in the major eastern cities of Bialystok, Kielce, Lublin and Rzeszów.[76] The uneven pattern emerged in spite of the Polish Investment Agency's strategic attempts to attract foreign investments into the service sector in Eastern Poland (PAIiIZ 2011).

The specific needs of the investors are not the only reason for the highly uneven location pattern of business service investments in the V4. Similar to the case of manufacturing investments, incentives, more precisely, the uniform territorial applicability of the incentives plays a role as well. In the Visegrad countries, the service sector enjoys the same investment benefits as the manufacturing industry thus foreign investors do not face spatial limitations in terms of receiving state aid.[77] This implies that they may be entitled to grants both in the relatively more developed and in the backward regions, which encourages setting up businesses in the prosperous areas.

For instance, Morgan Stanley established a mathematical modeling centre in Budapest in 2005. According to media reports, the company initiated the screening of more than one hundred potential investment sites across the globe before deciding to establish the centre in Hungary.[78] This is confirmed by the former CEO of ITD-Hungary who revealed that the US-



[74] *Business Support Services in the Czech Republic* (2009), CzechInvest Report (Available at http://www.czechinvest.org/data/files/bss-764-en.pdf)
[75] *Shared Services Centers* (2013). SARIO publication (Available at http://www.sario.sk/sites/default/files/content/files/shared_service_center_0.pdf)
[76] *Outsourcing Poland 2012: BPO and Shared Service Centers* (2012), BiznesPolska Media (Available at http://www.paiz.gov.pl/files/?id_plik=18684)
[77] In fact, the Czech Republic introduced an EU-approved incentive scheme (XR82/2007) that specifically targets business services. The state aid disbursed through this scheme is available in the whole territory of the country.
[78] Száz ország közül választotta hazánkat a Morgan Stanley [Morgan Stanley has chosen Hungary out of 100 countries], *HR Portal*, 18 July 2006 (Available at http://www.hrportal.hu/c/szaz-orszag-kozul-valasztotta-hazankat-a-morgan-stanley-20060718.html)

based firm was "surprisingly demanding in terms of state support" because they required approximately 8000 euro of aid for each job created (ITDHa 2012). In the end, the successful operation of this unit was the main reason why two years later Morgan Stanley expanded its business and relocated part of its financial service center from London to Budapest. To be sure, the company received generous investment incentives from the state: the 16.5 million euro in the form of cash grants and tax allowance covered 27.5 percent of the total cost of investment.[79]

To bring another example, the global consulting firm, McKinsey and Company recently established a shared services center in Poznań, Poland. The project created 251 jobs for a highly qualified workforce in one of the richest regions of the country. Yet, the Polish authorities offered state aid for the company, which was subsequently approved by the European Commission. The Commission considered the investment as a positive contribution to regional development therefore the aid was found compatible with European law.[80] McKinsey's investment certainly promotes the development of the region but this justification for the provision of state aid becomes less convincing given the advanced economic position of Poznań within Poland. In addition, the setup of the service center involved the downsizing of similar activities in McKinsey's two Swiss offices in Geneva and Zürich.[81] This suggests that the company applied for and received state aid from the Polish authorities only to finance a partial relocation project.

On the one hand, the above examples of foreign investments imply that Eastern Europe's comparative cost advantage accompanied with generous incentives may draw production and investments away from Western Europe. On the other hand, once an investor makes a decision to set up its business in Eastern Europe, the generosity of incentives may determine which region is going to be picked as an investment location. However, investors rarely make big compromises regarding the location and they tend to select sites that fulfill all or most of the criteria they had set for a given project. Turning this argument around, the implication is that if the amount of incentives is comparable in two or more potential locations, then the one with better endowments will be selected for the project. But what happens if a slightly less favourable location is promoted by generous incentives while state aid is unavailable in

[79] MF29/2008 - The European Commission's transparency system for regional aid for large investment projects (Available at http://ec.europa.eu/competition/state_aid/register/msf_2014.pdf)
[80] SA.33643 (2011/N) – Poland – McKinsey EMEA Shared Services, *European Commission*, Brussels
[81] Communication from an anonymous McKinsey employee in Poznań, 12 September 2013

another site which, however, offers a better investment climate? To put it differently, can investment promotion drive FDI into backward regions?

The investment promotion agencies in the V4 seem to share a common view in this respect: they all claim that incentives are useless in unattractive locations. The former CEO of CzechInvest expressed that

> Investment promotion is not a tool for eliminating weaknesses of regions: pumping money into zones where nobody would invest anyway is a waste of money and resources. One should bear in mind that it is not possible to kick investors into a location by offering investment incentives if they would not want to invest there. Investment promotion agencies are not able to force investors to enter a specific location unless they want to locate there anyway. (Interview CzechInvest 2011)

The representatives of the Polish agency also claimed that "it is much easier to bring businesses to a location, which is close to a metropolitan area and has good transport connections" (Interview PAIiIZ 2011). The former CEO of ITD Hungary added that "a location should first be made attractive before it can be promoted. Investors will not enter a peripheral location only because labour is cheap there unless the site meets those fundamental criteria that the investors set" (Interview ITDHa 2012). Finally, according to the former investment director of the Hungarian agency, they always attempted to include less competitive locations in the portfolio offered for prospective investors "but no matter how hard we tried, in most of the cases we were unable to promote the backward region. Once a place does not satisfy the needs of an investor, then it will simply not go there" (Interview ITDHb 2012).

The unanimous agreement among the leaders of the promotion agencies about the ineffective nature of incentives in lagging behind areas completely denies the logic of the EU's regional state aid policy, which is based on the assumption that incentives do assist economic catch-up in backward regions. What is the reason for this striking contrast between the opinion of the policy maker and the practitioners? The empirical evidence that has been put forward so far seems to reinforce the position of the promotion agencies: the opportunity to receive state aid attracted a large number of foreign investors but they mostly established their businesses in the relatively well-developed regions in the V4.

However, one also has to take into account that without much territorial differentiation, nearly the same level of state aid was available in every single region of the Visegrad states. This situation together with the intensive competition for investments across the V4 put foreign investors into an advantageous bargaining position and generated a paradoxical outcome: instead of lowering territorial disparities, the EU's investment regime contributed to the increasing economic gap between the advanced and the lagging behind regions. At the same time, among the Visegrad countries only Poland experimented with place-specific incentives. The initial success of the Euro-Park Mielec Special Economic Zone suggests that a spatial limit to the provision of incentives may indeed drive foreign investors into a promoted backward region thus the EU's state aid policy may work under such conditions. Yet, as the pressure on the Polish central government to expand the zones was growing, the SEZs gradually became a standard tool of subsidy and they lost their distinct territorial profile. To put it simply, the reason why the leaders of the V4 investment promotion agencies believe that incentives do not bring investors into less attractive locations is that they have never actually implemented a an investment policy that sufficiently differentiated among the more and the less developed regions.

## 3.4 The consequences of spatially undifferentiated investment incentives: a quantitative analysis of FDI location patterns

So far only individual cases have been discussed regarding the spatial pattern of foreign investments. Because of this, a more comprehensive sample of projects is necessary to consider in order to substantiate the arguments that have been put forward in this chapter. This is possible by turning to the European Commission's state aid register, which contains all the large investment projects that have been accomplished in the new member states since 2003. According to the regional aid guidelines, all new investments above 50 million euro qualify as large projects[82] and they need to be registered with and endorsed by the Commission in case they receive state aid. If the aid for the project is granted from an existing, already approved scheme, then it falls under the so-called block exemption regulations and the Commission acknowledges it without any further examination.[83] However,

[82] More precisely, the total eligible costs of new investments have to exceed 50 million euro.
[83] For a list of the most important state aid schemes which were awarded on the purpose of enhancing regional development in the V4, please consult Appendix A3.4.

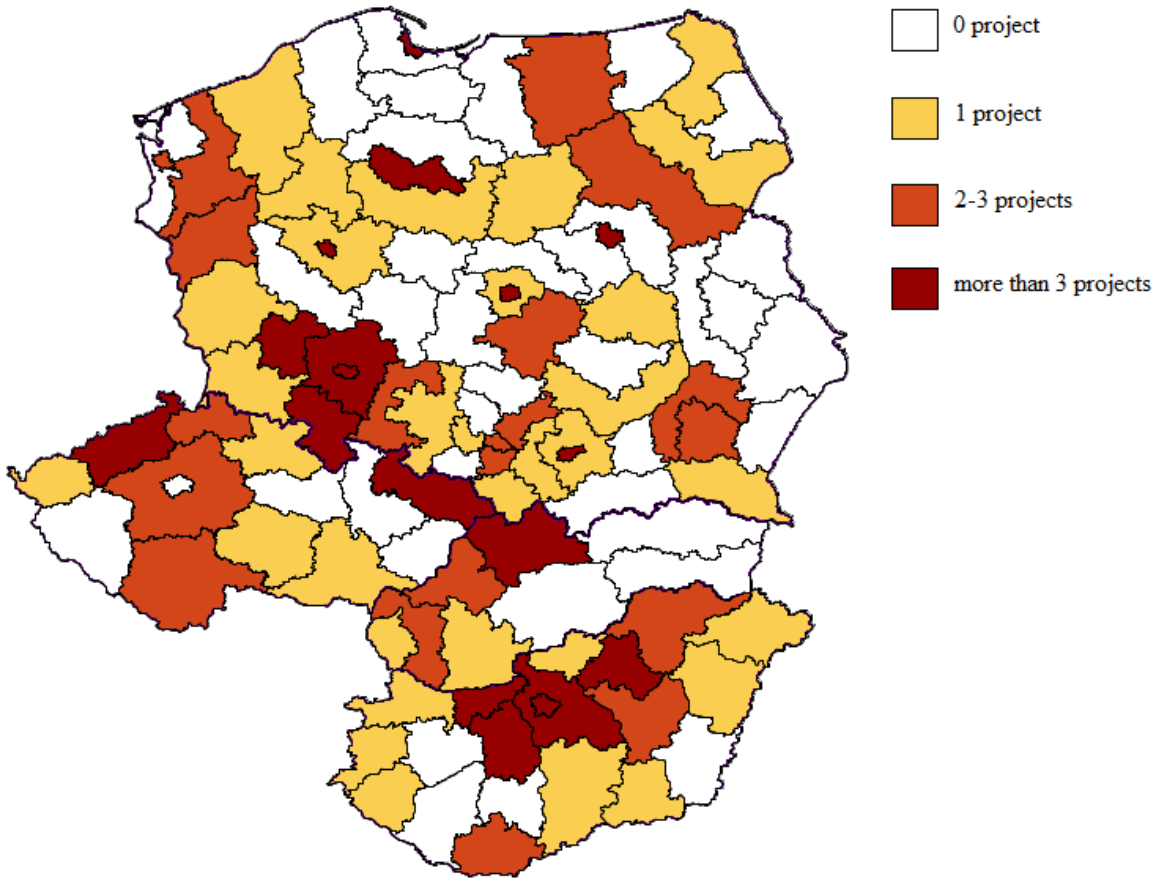
if the source of aid is different and/or the amount of support exceeds the regional notification threshold, then a formal investigation procedure has to determine whether the proposed aid is lawful.[84] In practice, this leads to two types of subsidized large investment projects: those that fall under the block exemption regulations and those that are so-called notified aid, which need to undergo further analysis to receive the Commission's permission.

As of September 2014, the state aid register recorded 98 large investment projects that received state aid according to the block exemption regulations and were carried out by foreign investors[85], while 106 projects fell under the category of notified aid.[86] The purpose of the block exemption regulations is to decrease the workload of the Commission regarding state aid decisions thus only those projects of this category are indicated in the aid register that also satisfy the criteria for large investments. It is therefore important to note that the EU's database represents only the tip of the iceberg. A much greater number of investments have received aid in this period but they did not enter the database because they were neither large nor supported beyond the existing and approved schemes. In this sense, these projects are not representative for all the foreign investments carried out in the V4 in the last decade. However, they do contain the biggest investment projects which cover the whole range of economic sectors from light through complex manufacturing to services. Thus the sample based on the EU's state aid register is suitable for identifying location patterns of FDI within the V4. Out of the 204 projects, 18 were undertaken in the Czech Republic, 47 in Hungary, 10 in Slovakia and 129 in Poland. Figure 3.1 shows the regional distribution of these projects. The map reveals a strongly uneven pattern: not even a single project was carried out in more than one third (38) of the NUTS 3 regions.



[84] The notification thresholds are proportional to the maximum aid intensity allowed in a given region. For instance, at 40 per cent aid intensity the notification threshold equals to 30 million euro.
[85] Those 24 new investments which were accomplished by domestically-owned companies were excluded from the current sample.
[86] For a full list of both types of large investment projects listed in the EU's State Aid Register please consult Appendix A3.5 and A3.6

**Figure 3.1: The regional distribution of large investment projects that received state aid in the V4 (2003-2014)**




*Source*: the author's own calculation, European Commission State Aid Register

Moreover, the investments are also concentrated in the more developed regions of the V4. In Poland, the metropolitan regions and the most industrialized south-western areas attracted the bulk of the investors. Out of the 66 Polish NUTS 3 units, almost half of the projects (62) were undertaken in the country's ten richest regions[87] while the ten poorest ones secured only six projects which represent less than five percent of the total. Hungary shows a similar picture: even though some investments targeted the rather peripheral, backward areas, out of the twenty NUTS 3 units four regions (Budapest, Fejér, Komárom-Esztergom and Pest), which have traditionally been a preferred target for foreign investors, secured more than half (27) of the projects. In this respect, Slovakia demonstrates the most uneven pattern as the

[87] Based on 2011 per capita GDP figures. Taking into account GDP data for 2002, the proportions remain the same: only three projects (2.3 %) were realized in the regions that belonged to the ten poorest ones in 2002, while 58 investment projects (45 %) were carried out in those that constituted the ten richest NUTS 3 units in 2002.

backward eastern regions of the country did not even secure a single large investment project. The Czech Republic represents the other end of the spectrum because the spatial distribution of the projects was the least uneven there and, interestingly, Prague remained the only capital city in the V4 without a large investment project recorded in the EU's database. However, the spatial pattern of investments in the Czech Republic has always shown a considerable degree of homogeneity, which is reflected in the fact that among the V4 regional disparities are the lowest there.

Overall, the projects received more than 3725 million euro of state aid for a total investment value of 18 653 million euro. This equals to a mean aid intensity of 20 percent. Thus, on average, the authorities put every fifth euro of the costs back in the pockets of investors, which is an indication of how rewarding investing in the V4 has been. At the same time, the aid also represents the amount of forgone state revenues. Taking into account that these investments were carried out in countries that already offer huge cost advantages compared to Western European sites, the necessity of the subsidies remains doubtful. However, it still needs to be determined whether aid has also concentrated in the more developed regions as both the individual cases outlined in this chapter and Figure 3.1 suggest.

To test the association between the regional level of development (independent variable) and aided investment projects (dependent variable), two different analytical approaches are used. On the one hand, by applying logistic regression to the data, the probability of the regional presence of a large investment project is estimated. In other words, the logistic regression estimates the probability of a region securing a subsidized foreign investment. On the other hand, through a negative binomial regression, the expected number of those investments is also estimated. Thus in the first case the models refer to a binary dependent variable while in the second case the output is count data, which represents the total number of investment projects within the regions. If the models reveal a significant positive association between the indicator of regional development and the dependent variables, then the results will confirm the findings that investment incentives have promoted the wealthier regions in the V4.

**Table 3.1: Summary of the logistic (Model 7-8) and the negative binomial (Model 9-10) regressions**

| | Model 7 | | | Model 8 | | | Model 9 | | | Model 10 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | The presence of large investment projects | | | | | | The number of large investment projects | | | | | |
| | B | SE | OR[a] | B | SE | OR[a] | B | SE | IRR[b] | B | SE | IRR[b] |
| Constant | -21.11** | 9.34 | | .90 | 1.37 | | -15.20*** | 3.45 | | .01 | .60 | |
| GDP per capita in 2002 | 2.69*** | 1.13 | 14.80 | | | | 1.91*** | .41 | 6.76 | | | |
| Urban population in 2002 | | | | .03** | .01 | 1.03 | | | | .02*** | .01 | 1.02 |
| Unemployment in 2002 | | | | -.01* | .01 | .99 | | | | .00* | .00 | 1.00 |
| Western region | 1.55 | 1.04 | 4.72 | 1.78** | .80 | 5.95 | -.41 | .29 | .66 | -.32 | .23 | .73 |
| Czech region | -2.19** | .93 | .11 | -1.86* | .97 | .16 | -.81* | .44 | .45 | -.79** | .40 | .45 |
| Polish region | -1.05 | .67 | .35 | -1.01 | .70 | .36 | -.38 | .30 | .68 | -.42 | .36 | .66 |
| Slovak region | -1.85* | 1.03 | .16 | -.87 | 1.08 | .42 | -1.09** | .52 | .34 | -.47 | .48 | .62 |
| N | 108 | | | 108 | | | 108 | | | 108 | | |
| Wald $\chi^2$ | 12.16** | | | 18.62*** | | | 25.74*** | | | 25.21*** | | |
| Nagelkerke's pseudo $R^2$ | .22 | | | .23 | | | .22 | | | .20 | | |
| alpha | | | | | | | .829 | | | .834 | | |
| LR test of alpha = 0[c] | | | | | | | 70.21*** | | | 62.28*** | | |

Unstandardized coefficients, robust standard errors. Figures are rounded to the second decimal.
* p < .1 ** p < .05 *** p < .01
The models have been tested for influential outliers (residual plots, calculating hat values). According to these tests, neither observations show considerable discrepancy and high leverage.
a: Odds ratio
b: Incidence rate ratio
c: If alpha is zero, then a Poisson regression would provide better estimates

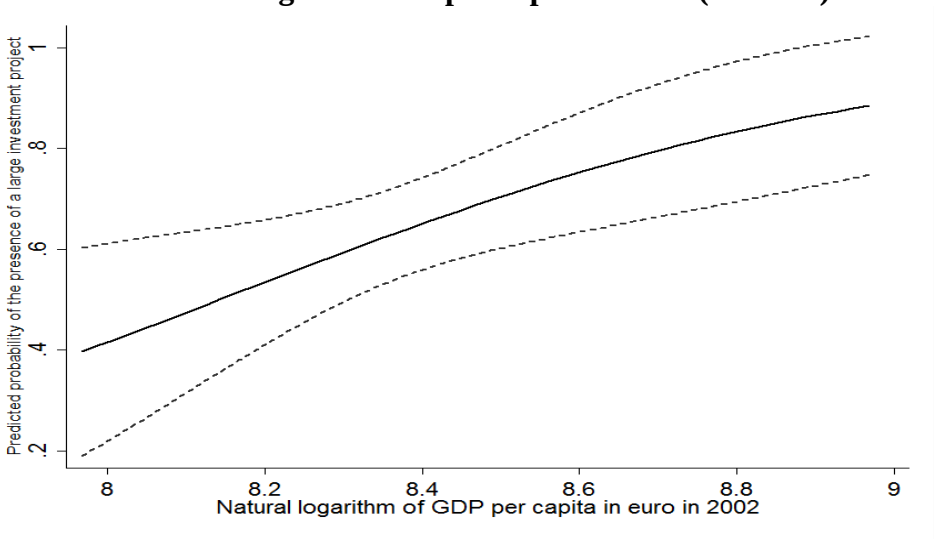
For this exercise, similar indicators are used as in the case of estimating FDI inflows (Table 2.1, Chapter 2). Because the investment projects were carried out between 2003 and 2014, data on the independent variables have to precede this period thus 2002 will be used as the reference year. Accordingly, regional GDP per capita[88] is used as a proxy for the level of development, the number of registered unemployed per 1000 employed as a percentage of the national average represents regional unemployment and the share of urban population is an indicator of urbanization. In addition, country dummies and a binary indicator ("western region") showing whether a region borders Austria or Germany are also introduced to the models. Since GDP is highly correlated with unemployment and urban population, it is treated separately in the models.[89] Table 3.1 presents the results.

The models confirm the expectations. As for the logistic regressions, Model 7 tested the effect of regional GDP and western location on the probability of the presence of an investment project, while Model 8 estimated the level of unemployment and the share of urban population on the probability of the same outcome. The coefficients show that GDP and urbanization increase the chance of securing an aided investment whereas unemployment has a weakly significant negative association with it. Western location has a significant positive effect only if GDP is excluded from the model. The values of the odds ratios indicate that while holding all other variables constant, a unit increase in an explanatory variable would increase the odds of the presence of a large investment project by a factor of the corresponding odds ratio. However, the interpretation of the coefficients and the odds ratios is quite cumbersome. Instead, visualizing the predicted probabilities calculated from the coefficients would provide an easier understanding of the results. Accordingly, Figure 3.2 shows the predicted probability of the presence of an investment project associated with different levels of regional GDP. The graph reveals that as per capita GDP grows, the probability that a region would secure a subsidized large investment project also rises.



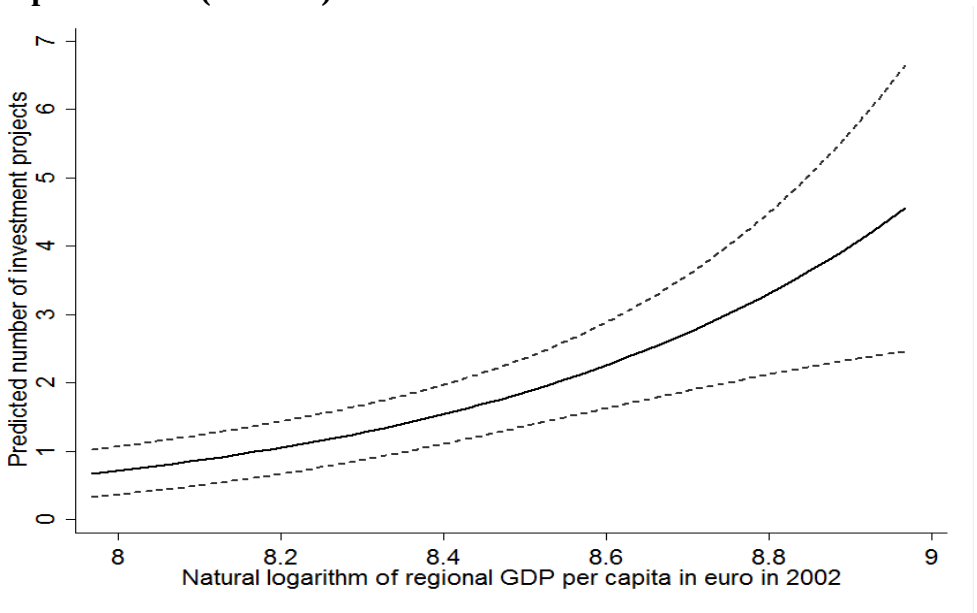
[88] To normalize distribution, the GDP variable was logarithmically transformed.
[89] For descriptive statistics and the correlation matrix please consult Appendix A3.7 and A3.8

**Figure 3.2: The predicted probability of the regional presence of large investment projects at different levels of regional GDP per capita in 2002 (Model 7)**




The negative binomial regressions take the analysis a step further in that they estimate the number of investment projects in a region as a function of the same explanatory variables as in the case of the logistic regressions. The results fully comply with the previous ones but also reveal that higher regional levels of GDP and urbanization are associated with a greater number of aided projects. In other words, large foreign investments that received incentives tended to concentrate in the more developed regions in the V4. This suggests that state aid has actually reinforced instead of mitigated the agglomeration effect which would anyway draw investors into prosperous areas. The direct interpretation of the model output (coefficients or the incidence rate ratios) is challenging therefore visualization is preferred in this case, too. Figure 3.3 shows the expected number of investment projects at different levels of logarithmic GDP per capita. As per capita GDP rises, the expected number of aided investments also increases. The confidence intervals also show that at high levels of GDP the model's predictive power decreases. This is because there are few regions at the top end of the GDP scale.

**Figure 3.3: The predicted number of large investment projects at different levels of GDP per capita in 2002 (Model 9)**




The above models are relatively simple and also suffer from certain limitations. For instance, they do not take into account the potential spatial dependency among the investment projects. It is likely that an investor draws its main suppliers into the same region and they all receive generous state aid as for instance the case of Samsung in Slovakia demonstrated. Therefore, in a strict sense, the investments in the examined sample may not be entirely independent from each other. However, this possibility does not affect the findings because what matters here is that incentives have mostly served the promotion of already well-developed regions and the models fully capture this phenomenon. In sum, all the empirical evidence suggests that contrary to the policy goals formulated in the EU's regional aid guidelines, the practice of providing state aid for new investments has contributed to the rise of regional disparities in the Visegrad countries.

## 3.5 Conclusion

The empirical evidence analyzed in this chapter suggests that foreign investors have enjoyed a privileged position in the Visegrad states in the 2000s but were also in a rather favourable position in the 1990s. Besides the substantial cost advantages of investing in Eastern Europe, foreign investors benefited both from the privatization deals and the generous incentive schemes that the EU justified based on regional development goals. Thus the externally

legitimized quest for FDI has further reinforced the bargaining power of multinational companies *vis-à-vis* the national governments: by taking advantage of the fact that the V4 was in need of FDI, foreign investors were able to play off these states against each other and managed to squeeze out the maximum level of state aid from the governments.

The location pattern of foreign investors was similar in the 1990s when the V4 pursued rather different investment policies and in the 2000s when these countries were more alike to each other in this respect. In both periods, however, the richer regions were in a privileged position. The reason for the same outcome in the two different contexts is the following. Except for Hungary, little efforts were made in the V4 to promote FDI in the 1990s when privatization was the main channel of entry for foreign capital. However, because the density of SOEs was higher in the more developed regions, they were also able to attract more foreign investors, which paved the way for subsequent investments as well. In addition, during the negotiation of the privatization contracts, foreign investors enjoyed superior bargaining power because central governments lacked the resources for turning the large SOEs competitive without relying on external involvement. Investors were thus able to strike favourable deals, which created precedents for further investment projects.

The failure of the only attempt among the V4 to promote backward locations with spatially differentiated investment incentives demonstrates this point. The Polish Special Economic Zones failed to bring large investors into lagging behind areas and did not manage to equalize regional development through FDI. This outcome owes to the fact that because of their strong bargaining position, in many instances foreign investors succeeded in changing the conditions of SEZs, which have eventually become standard forms of state aid, regardless of the location of the investment. In the end, this has largely undermined the chances of backward Polish regions for catching up through FDI.

In the 2000s, the external regulatory environment of the EU represented a key factor for investment flows. First, the shift in domestic FDI policies and the increasing dependency on foreign capital inflows generated an intensive investment competition among the structurally similar Visegrad states. Second, the EU, according to the state aid guidelines of the competition policy, has legitimized most of the incentive schemes. This has created a regulatory gap leading to unintended consequences. Given that the whole territory of the V4 was considered backward relative to the EU average, regional state aid ceilings did not

differentiate among the more developed and the truly laggard regions *within* the Visegrad countries. These circumstances have placed greenfield foreign investors into a good bargaining position so that they were able to negotiate generous subsidies and locate in the richest regions that offered the best endowments.

These findings suggest that if profit-seeking investors can freely choose among several competing locations that offer similar benefits, then they will enter the region with the greatest locational advantages. It seems plausible that if differences in investment risks are rather negligible, which has been the case with the V4 since the early 2000s, then territorially undifferentiated investment incentives may only influence the marginal cost of locating in one country rather than another (see also Meyer and Jensen 2005). If incentives are not place-specific but equally available across the more and the less developed regions, then they will not be able to bring investors into relatively unattractive locations. In this regulatory environment investment promotion becomes costly and ineffective and raises legitimate concerns about whether it makes sense to spend public money on goals that cannot be achieved.

All things considered, because of the nature of investment competition, generous investment incentives that are not tied to specific locations promote primarily those areas that are already relatively well-developed. A possible consequence of this is that the fiscal resources absorbed by investment competition will come at the expense of regional development policies (Oman 2000 p. 118). The following two chapters examine this aspect as well. Chapter 4 analyzes the regional development policies of the Visegrad governments in the 1990s, then it goes on to demonstrate how these approaches have been Europeanized and eventually standardized in the next decade. By analyzing the regional distribution of the EU's Structural Funds, Chapter 5 shows that similar to FDI, regional development funds have benefited the more developed Visegrad regions. This leads to the paradoxical situation that the EU's cohesion policy has also reinforced rather than mitigated regional disparities.

# CHAPTER 4

## THE REGIONAL DEVELOPMENT POLICIES OF THE VISEGRAD COUNTRIES: SWINGING BETWEEN DOMESTIC AND TRANSNATIONAL INFLUENCES

### 4.1 Introduction

Reflecting on the evolution of regional policies after the change of regime is essential for the proper understanding of the patterns of uneven regional development in the V4. While the current chapter focuses on how those policies have evolved under the influence of domestic politics and external expectations, Chapter 5 is an empirical assessment of the territorial distribution of regional development funds, with particular emphasis on the decade after EU-accession. The analysis seeks to explore the reasons behind the somewhat paradoxical fact that in spite of the increasing financial resources committed to reduce regional disparities, they have been constantly growing since the change of regime. To put it differently, why have the regional policies failed to prevent or at least slow down the rise in territorial inequalities once regional policy budgets have multiplied since the early 1990s?

While seeking an answer to the above puzzle, this chapter puts forward two main arguments. First, it shows that in the 1990s domestic regional policies of the Visegrad governments suffered from shortage of funds. They were characterized by incoherent and uncoordinated policy initiatives mostly representing sectoral instead of territorial interests. This situation was the joint result of the state socialist legacy of central planning and the fact that central governments were busy with managing the grave macroeconomic difficulties of transition. They neither had the time nor the intention to devote much attention to regional development problems. However, the few and fragmented policy initiatives were targeting the least prosperous regions thus even in their highly inefficient form they attempted to lower internal disparities.

The second argument is that even though the EU's pre- and post-accession funds and EU membership itself brought a profound change to both the profile and the significance of regional policies, those developments have been ambiguous in that they mostly benefited the already prosperous regions. In particular, the regional policies of the V4 have converged on the EU's cohesion policy which involved a shift in the objectives while the domestic

territorial systems and the centralized decision-making structures were left almost intact. More precisely, with their limited financial resources, the infant domestic regional policies of the 1990s targeted backward regions while since the early 2000s the Europeanized regional policies have applied universal targeting: each V4 region has been eligible for EU funds, which leads to two major consequences. On the one hand, regions with greater fund absorption capacity are likely to secure more development funds. On the other hand, the centralized domestic fund allocation mechanisms are vulnerable to political manipulation: incumbent parties may be motivated to handpick fund beneficiaries in order to reward their constituencies.

This chapter is divided into two main parts. First, it analyzes the regional policy developments from the early 1990s until the Visegrad states gained EU candidate status. Then it goes on to discuss how these initial policies were subsequently transformed and Europeanized and what consequences those changes implied for the decision-making structure and policy objectives. The chapter will also highlight the most recent developments in order to lay the ground for the empirical analysis performed in Chapter 5. Before engaging in the discussion, the following subsection provides a brief overview of the basic principles of regional policy.

## 4.2 A brief overview of the basic principles of regional development policies

Regional development policy is one of the key redistributive tools for governments that wish to intervene and influence spatial processes. The main objective of these policies can range between two 'extremes'. On the one hand, they may promote growth and competitiveness of leading regions. On the other hand, they may aim to equalize regional differences (Pyszkowski 1992). In the former case, growth poles, which usually are the most developed regions of a country, benefit from regional development funds. This practice, at least initially, leads to further polarization and the widening of internal regional disparities. Proponents of this approach refer to the theories of industrial districts (Hirschman 1958) and growth poles (Perroux 1950), which anticipate trickle-down effects to the less prosperous regions so that disparities may narrow over time. Another argument in favour of regional policies supporting leading regions is that the stimulation of the fast-growing areas facilitates a country's catch-up process with advanced economies.

In contrast, pursuing the objective of equity involves the redistribution of development funds from leading to backward regions in order to level out or at least to reduce internal disparities. In this respect, the equity objective assists lagging regions in their attempt of catching-up with the rest of the country. To put it differently, the competitiveness objective sets a transnational reference point as its development goal (external convergence) while the equity objective has a clear domestic orientation of reducing the gap between leading and lagging regions (internal convergence).[90] Many scholars and policy experts argue that there is an inevitable trade-off between equity and competitiveness (often referred to as efficiency) objectives and in order to implement a consistent regional policy, it has to settle on one of these goals, because the simultaneous pursuit of both objectives may result in the fragmentation and inefficient allocation of development funds.

However, making a choice for one or the other also involves potential drawbacks. As Bachtler and Wishlade note, "an emphasis on equity goals may create disincentives for commitment to growth and competitiveness while emphasis on competitiveness may exacerbate territorial disparities" (2011 p. 52). Ferry and McMaster also argue that promoting competitiveness "can encourage development patterns that accentuate differential growth rates in growth centres and peripheral areas" (2013a p. 1514). Referring to the Eastern European EU member states, the same authors suggest that „a parallel compromise has to be sought between the goals of economic efficiency and distributional equity, between external convergence of the country with the EU and internal convergence in terms of domestic regional disparities" (2005 p. 33). If one assumes that with the promotion of growth poles the trickle down effects either take too long time or fail to materialize whereas the direct support to lagging areas would relatively quickly produce equalizing effects, then, from the point of view of reducing internal disparities, the equity objective is more beneficial than pursuing the goal of competitiveness.

Another important aspect of regional policies is their decision-making structure, which may also fall between two 'extreme' cases. Funds can be allocated according to a centralized system where sub-national units have little or no influence on policy planning and implementation and neither possess formal powers to affect the distribution of funds. At the other end of the spectrum, regions and relevant sub-national units are fully involved in the decision-making process. In this case, they are the main actors that design and implement the policy and the role of central government is limited to policy monitoring and the (partial)

[90] The terms of external and internal convergence were borrowed from Ferry (2013).

provision of funds from the state budget. However, in order to meaningfully involve the regions in the decision-making, they need to hold a certain degree of autonomy and administrative powers, independent from the central government. In this sense, a regionalized regional policy requires a decentralized territorial administrative system.

**Figure 4.1: The two main institutional dimensions of regional development policies**

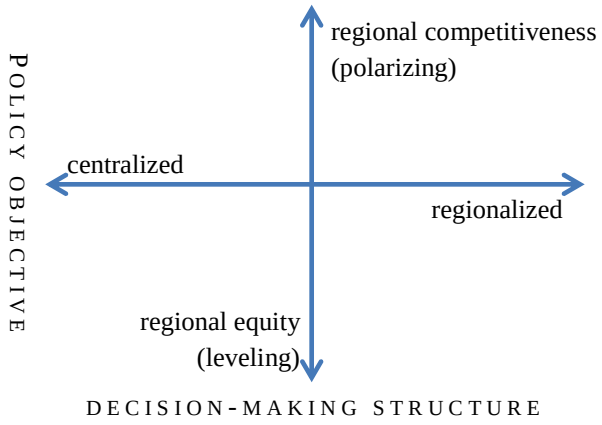



Figure 4.1, which arranges the two main institutional dimensions of regional policy into a single frame of reference, lends itself the question whether the decision-making structure and the policy objectives are related to each other. In other words, does a centralized system enhance the equity objective or is it rather the regionalized one that is better suited for equalizing regional disparities? In principle, there is not a direct association between policy objectives and decision-making structures. Both centralized and regionalized systems can serve either the purpose of competitiveness or equity. However, centralized systems require less time to allocate funds because of the fewer actors involved in the decision-making, thus they are more efficient under time constraints. Yet, a centralized system is also more prone to distributing funds according to political considerations, as both ideological preferences and the nature of local or regional political competition may determine how the central administration allocates funds (Kemmerling and Stephan 2002). The current and the following chapter will show how these aspects gained great significance in the Visegrad states after they had joined the EU.

Nevertheless, it is not the decision-making structure but the targeting of regional development funds that primarily determines whether and how the declared policy objectives are achieved. First, it is a prerequisite of any regional policy to have regional units as the subjects of development funds. In this respect, the institutional setup of the territorial administrative system is the primary reference point of the policy. Targeting, which is about the selection of regional units to be supported, is the next step in the process. In essence, targeting determines the regions that become eligible for the funds (Bachtler and Downes 2000). If predominantly laggard regions are selected, then the policy will promote the leveling of internal disparities. Conversely, it would serve the competitiveness objective if prosperous regions are the main targets.

This chapter argues that the reason why regional development policies in the Visegrad states have failed to narrow the gap between the rich and the poor regions is the mismatch between declared policy goals and targeting, which is the direct consequence of the "Europeanization" of those policies. In the 1990s, the national regional policies of the V4 were mostly targeting backward regions but lacked sufficient funding thus they failed to narrow regional disparities. Later, especially after EU accession, financial resources for regional development were abundant via the EU's cohesion policy. However, in this period targeting became universal: to date, every single ECE (and Visegrad) region has been eligible for EU funding regardless of their relative development level *within* their countries. To put it differently, the most prosperous and the most backward regions have been equally eligible for development funds. This institutional arrangement tends to favour those that possess greater fund absorption capacity, which are usually the more developed regions.

This contradicts even the EU's official policy goals, which clearly refer to the equity objective: the concentration principle of the EU's cohesion policy establishes that the funds should target the most backward regions of the member states. However, regional backwardness is assessed at the European and not at the country-level. According to the EU's criteria, each NUTS 2 Visegrad region is backward thus the whole territory of the V4 has become the target of EU funds. Under these circumstances, when the relatively more prosperous Visegrad regions compete with the worst-performing ones for financial assistance, those are likely to gain more that are already better endowed and have greater capacity to absorb funds. This is the reason why when applied in practice, the EU's cohesion policy in the Visegrad countries has rather served the competitiveness objective: Europeanized regional

policies have tended to promote the more developed rather than the lagging regions, which has contributed to rising regional disparities.

## 4.3 Regional development policies in the early 1990s: relegated to the back burner?

State socialism failed to appropriately address regional problems (Berentsen 1992) and its poor record can mostly be attributed to the dominance of sectoral policies over territorial concerns. In fact, regional policy and spatial planning were undertaken only within the framework of sectoral policies that had territorial consequences (Bachtler and Downes 1999; Horváth 2001). This legacy heavily influenced the policy approaches in the 1990s, also because both the politicians and policy practitioners lacked the necessary expertise to tackle regional development problems outside the sectoral context. Models about how to treat rising territorial inequalities during transition from planned to market economy were entirely missing (Silvan 2000). This is also partly the reason for the inconsistent or in certain cases even non-existent approaches to regional policy in the early 1990s.

After the change of regime regional policy was sidelined because the political elites were preoccupied with such pressing issues as macro-economic reforms, rising unemployment and poverty (Bachtler et al. 2000; Downes 1996). In this context, growing regional disparities became second-rank problems. Nevertheless, as market reforms progressed, their uneven spatial impact, the widening gap between prosperous and lagging regions, were becoming apparent. More specifically, the contrast between urban and rural areas, between western and eastern regions and the rapid decline of traditional industrial areas, especially those dominated by heavy industry, urged central governments to take action (Paraskevopoulos and Leonardi 2004).

Yet, soon after the regime change territorial reforms created an administrative gap between the local and the central governments (Bachtler et al. 2000). The intermediate (or regional) tier of state administration was either abolished or downgraded in the V4 because this territorial level was mostly considered as the former regime's executive arm that had to be weakened (O'Dwyer 2006; Yoder 2003). As a consequence, the local level gained considerable powers at the expense of the regional level. Nevertheless, the municipalities remained financially dependent on the central state (Dunn and Wetzel 2000), which also

ensured central control over those locally entrenched former communist elites who were elected to leading positions after the regime change. The early territorial reforms in the V4 generated a competency vacuum between the local governments and the central state: except for Poland, municipalities are too small to perform "any economic development functions apart from the delivery of basic services" (Bachtler and Downes 1999 p. 797). In short, central governments faced only weak regional partners that had low capacity for interest representation and very little ability to influence government decisions.

Regarding the design and implementation of regional policies, the above situation has produced two major consequences. On the one hand, the lack of regional interest representation strengthened the already dominant sectoral approaches to spatial planning. This resulted in the fragmentation of the institutional infrastructure of regional policy, which caused inconsistency in the policy objectives. On the other hand, without powerful regional actors, the decision-making structure was predisposed to centralization. Lastly, because the political leaders considered regional issues as of secondary importance, the prospects for the emergence of strong regional policies were rather bleak in the early 1990s. The next section highlights these initial policy dynamics for each Visegrad country in detail.

### *4.3.1 Czech Republic*

Like in most of the other former communist countries, a systematic regional policy was absent in Czechoslovakia during state socialism. Instead, prior to 1989, central planning was dominant that focused on industrial development in regions designated for this purpose (Bachtler and Downes 2000). In 1977, a Regional Planning Decree was adopted in both the Czech and the Slovak Republic, which integrated regional planning as a subsystem of central planning into the jurisdiction of regional and district authorities (Blažek and Kara 1992). However, because all the subnational administrative units were closely controlled by the communist party, this step did not constitute a shift towards a genuine regional policy. In reality, the decree further strengthened the role of the central administration which continued to shape territorial processes according to sectoral considerations. Ironically enough, one of the very last documents that the communist Czech parliament adopted on 15 November 1989 was another Regional Planning Decree, which stipulated the reduction of regional disparities through the redistribution of financial resources among the Czech regions (Blažek and Kara

1992). The decree, however, was never implemented because of the sweeping political changes triggered by the Velvet Revolution at the end of 1989.

After the change of regime, the Municipal Act of 1990 re-established local autonomy and conferred legal powers to municipalities (Ismeri and Applica 2010). The new, democratic government was eager to cut all the regional ties of the former communist elite and this is the reason why it transferred most of the regional competencies to the central level (Blažek and Boeckhout 2000). The reform of public administration *de facto* abolished the eight Czech regions, which left the 77 districts the only administrative units between the municipalities and the central government (Hooghe, Schakel, et al. 2008).

Although in 1991 the Czech government declared regional policy as an integral part of its economic policy (Blažek and Kara 1992) and charged the Ministry for Economic Policy and Development with its implementation, the ministry did not formulate a consistent and comprehensive response to emerging territorial inequalities. This was partly caused by the prevailing legacy of strong sectoral ministries that developed their own approaches and spending mechanisms without any efforts to co-ordinate with the other actors. Regional policy interventions, or, more precisely, sectoral policies with regional effects were thus extremely fragmented and isolated from each other (Vozáb 2007). Furthermore, the centre-right coalition government led by Václav Klaus between 1993 and 1996 shared the neoliberal view that market forces would resolve territorial development problems therefore state intervention to spatial processes would be necessary only to a very limited extent (Blažek and Boeckhout 2000; Vozáb 2007).

As a consequence, in the early 1990s regional policy in the Czech Republic was nearly nonexistent: sectorally-oriented policy measures were fragmented and the limited fiscal transfers were allocated to tackle isolated regional problems (Ferry and Mcmaster 2005). However, the territorially concentrated and rising levels of unemployment eventually triggered a response from the central government: in 1994, a parliamentary decree created the legal basis for supporting small-and medium size enterprises in areas of high unemployment, such as in the districts of Ostrava, Chomutov, Český Krumlov, Znojmo, Bruntál, Jeseník and Teplice (Červený and Andrle 2000; Downes 1996). Nevertheless, financial transfers to SMEs remained modest. The total support allocated for this purpose reached 0.1 percent of the Czech GDP in 1994, which barely compares to the budget of a similar Italian programme, which in 1991 amounted to 1.05 percent of the country's GDP (Downes 1996).

The attitude towards regional policy changed in 1996 after the centre-right coalition had lost its parliamentary majority and had to offer concessions to the opposition to remain in power. The social-democrats demanded that the government addressed regional development problems in a more comprehensive way and also urged the decentralization of state administration (Blažek and Boeckhout 2000). Following suit, Klaus's minority government established the Ministry for Regional Development (*Ministerstvo pro Mistni Rozvoj*), which took over the responsibility for regional policy from the Ministry of Economy (Bachtler and Downes 1999). This appeared as a clear sign that greater significance would be attributed to the policy area especially compared to the previous years when, as Tomaš Kvapil, the Minister for Regional Development highlighted in a speech in 1996, "regional policy has been reduced merely to regionally differentiated support to small and medium sized businesses" (cited by Ferry and Mcmaster 2005 p. 27). In spite of these institutional changes, the new ministry was understaffed and poorly financed (Bachtler et al. 2000), which maintained the low profile of regional policy. Both domestic political changes, such as the social democrats coming to power after the 1998 elections, and external influences, primarily that of the European Union, were necessary to place the issue of regional development to the fore of Czech politics.

### *4.3.2 Slovakia*

The evolution of regional policy in Slovakia shows a striking similarity to the Czech case. This, however, is not too surprising given the two countries' shared legacy of communism. Yet, considering the fact that after four decades of central planning Slovakia was much more affected by territorial inequalities than the rather homogeneous Czech Republic, the similarities appear slightly more puzzling. Still, initial attempts to formulate a comprehensive regional policy were undermined by more pressing macroeconomic reforms and political changes. As a consequence, the shaping of regional policy in the early 1990s was an *ad hoc* rather than an elaborate process (Nižnanský and Širak 1999).

Before 1990, territorial disparities in Slovakia were addressed through centrally allocated resources, which primarily served industrialization goals in certain regions and districts (Silvan 2000). For instance, the 1976 act on territorial planning entirely disregarded the

absorption capacity of regions and introduced a rigid system of central planning that aimed to stimulate further industrialization (Nižnanský and Širak 1999). This practice has laid the ground for the emergence of regional disparities, which increased significantly after the change of regime (Silvan 2000).

The disparities stem from the practice of central planners that located heavy industry and military plants in the agricultural regions of Eastern Slovakia, which are far from the western border and were less likely exposed to potential attacks. Because these plants were producing for exports and were disintegrated from the rest of the economy, they remained isolated and depended exclusively on the Soviet markets. Moreover, the surrounding areas failed to develop a local industrial base (Revenga and Silva-Jauregi 2002). Because of these characteristics, the collapse of the Soviet Union and the disbandment of the Warsaw Pact immediately and heavily affected the economy of Eastern Slovakia but the southern border districts and part of Northern Slovakia also showed signs of massive economic downturn.

In 1991, the Ministry for Economic Strategy conducted a nationwide survey of the socio-economic situation of the Slovak districts, which was followed by the first official document (Government Resolution No. 390/1991) that outlined the principles of regional economic policy. In the same year, Ján Čarnogurský's Christian-democratic government selected 13 backward districts to receive priority treatment but in 1994 the Mečiar government introduced a national program of SME support instead which did not account for any territorial aspects (Nižnanský and Širak 1999).

The amount of financial appropriations allocated for regional policy reflected the second-rank status of territorial issues. Until the end of the 1990s, the annual average government spending on regional policy-related measures did not even exceed the stunningly low 0.02 percent of GDP (Silvan 2000). It goes without saying that even in the case of a highly sophisticated, elaborate regional policy the extremely limited amount of funds would not have delivered any visible results. To make things worse, between 1991 and 1998 five different state institutions were charged with the coordination and management of the policy (Nižnanský and Širak 1999), which led to the fragmentation and incoherence of the measures.

While regional policy did not actually exist in the early years of transition, the territorial reform introduced by the Mečiar government in 1996 was a strong step towards further centralization. While after 1990 the regional level of administration was completely eliminated, the 1996 act on the territorial and administrative structure of the Slovak Republic

created a two-tier system of 8 regions (*kraje*) and 79 districts (*okres*). However, the regions did not gain any administrative power because they remained under state control as the deconcentrated units of the central government (Hooghe, Schakel, et al. 2008; Silvan 2000). In fact, the new sub-national units became a source of patronage for the supporters of the governing HZDS party because both the regional- and district-level office holders were appointed by the government (Bitušíková 2002; O'Dwyer 2006). However, domestic political changes and the EU's growing regulatory influence triggered a fundamental shift in the Slovak regional policy at the end of the 1990s.

### *4.3.3 Poland*

Regional disparities in Poland follow the boundaries of the country's 18th century partitions between Russia (central-east), Austria (south-west) and Prussia (north-west). The main division appears between the industrialized and more developed central- and southwest regions and the backward agricultural east and north-east (Czernielewska et al. 2004; Gorzelak 2000). Unlike in the case of the other Visegrad countries, the Polish settlement structure is characterized by an even distribution of big cities over the country's territory, which could potentially prevent the emergence of large disparities. However, the decades of central planning did not substantially decrease spatial inequalities, because it served sectoral instead of territorial considerations.

Nevertheless, even before the change of regime there were some failed attempts to narrow the regional development gaps. In 1946, the Central Office of Spatial Planning (COSP) prepared a long-term plan of eliminating regional disparities across the country. The plan suggested the creation of industrial centres in poorly industrialized areas so that the rural population would migrate to these newly established hubs. However, the plan was never executed because in 1949 the COSP was closed and the State Economic Planning Commission (*Państwowa Komisja Planowania Gospodarczego*), which implemented decisions taken by the communist party's central committee, took over its responsibilities (Bański 2010).

In the following decades, the development of Polish regions was shaped by centralized state policies following sectoral or in some cases, ideological priorities that rarely took into account economic realities. For instance, the steel works of Nowa Huta in Cracow were located in an

area without coal, iron ore, sea connections or a qualified workforce. The decision was motivated by the idea to create a working class base in one of the most 'bourgeois' cities in Poland (Prud'homme 1992). The administrative reform in 1975 further strengthened central control over the regions: by dividing the 17 voivodships dating back to the inter-war period into 49 smaller units, the communist government broke their strong internal economic and cultural bonds (Czernielewska et al. 2004).

After 1990, the democratic governments had to face the economic decline of heavy industrial regions, and the growing difficulties of peripheral rural areas in the east and northeast. At the same time, the crisis of the national economy posed a much greater challenge to address and this is the reason why regional issues became sidelined in the early years of transition (Bachtler and Downes 2000). The reform of state administration was also pending because of the lack of political agreement on its direction. With respect to regional policy and territorial administration, in the first half of the 1990s the Polish governments offered *ad hoc*, partial and temporary solutions.

Tadeusz Mazowiecki's Solidarity government, which came into power in 1989, was committed to local government reform but at the same time considered the regional tier of administration as a source of the communist party's remaining influence and for this reason stripped the 49 voivodships from much of their competencies (Hooghe, Schakel, et al. 2008; Pyszkowski 1992). Although the Suchocka-government that followed Mazowiecki's cabinet was inclined to restore the 17 inter-war voivodships to create a three-tier administration, these initial attempts of decentralization were stalled when the post-communist centre-left coalition, which was against territorial restructuring, won the early elections in 1993 (Gwiazda 2013). This also implied that subsequent governments did not find regional partners for the formulation and implementation of a regional policy. As a consequence, in much of the 1990s, sectoral, central state agents adopted *ad hoc* policy measures to tackle regional problems but the lack of coordination among them and the limited financial resources meant that strategic, coordinated regional policy was virtually nonexistent in those years (Bachtler and Downes 2000; Ferry 2013; Ferry and Mcmaster 2005; Gorzelak 2000; Gwiazda 2013; Kozak 2000; Pyszkowski 1992).

In spite of this, several policy initiatives were formulated among which one of the most significant was the partially EU-funded diagnostic report and strategic proposal prepared by the Central Office of Planning (COP) in 1996 (Kozak 2000). The strategy, however, was not

implemented because the centre-left government did not consider it as a priority (Gwiazda 2013). In the early 1990s the Ministry of Labour and Social Policy, which shared responsibility with the COP for regional policy, was the only government body that adopted measures with an explicit territorial aspect: the Labour Fund targeted areas of high unemployment (1.5-2 times above the national average) and those struggling with economic restructuring (Bachtler and Downes 2000). Another notable measure was the Contract for Katowice which was signed in 1995. This constituted an agreement between the central government and regional authorities about the list of activities to be coordinated for the economic recovery of the Katowice region characterized by coal mining and steel production (Ferry and Mcmaster 2005). However, the contract did not allocate financial resources to realize its aims, therefore it mostly remained unaccomplished.

Ironically enough, an initiative with an originally sectoral orientation, the Special Economic Zones (SEZs) became the primary vehicle of Polish regional policy in the 1990s. The previous chapters have already highlighted the mixed record of SEZs in attracting foreign investments. It needs to be discussed though how the zones emerged as an element of regional policy. In 1992, the Ministry of Industry and Trade (MIT) established a special unit dedicated to the restructuring of the Polish defense industry. Once employing nearly 200 thousand workers, the Polish military industry experienced a heavy crisis after the change of regime (Nelson 2003). Because much of the industry was concentrated in peripheral southeastern Poland, the MIT, and its external Irish consultants focused their efforts on that area and especially on the town of Mielec, of which entire economy was based on a military aircraft and engine producer that went bankrupt in 1992.

The group of experts drafted a plan on establishing a tax-free economic zone on the grounds of the factory to attract investments and create new jobs. The government supported the idea and expected that a very limited number of zones in areas with similar problems would assist the process of industrial restructuring. The 1994 Act on Special Economic Zones established the legal grounds for SEZs. A year later, in September 1995, the first Polish SEZ, Euro-Park Mielec opened its gates (Gwosdz et al. 2008; Nelson 2003). Although the initial assumption was to keep the number of tax-free zones limited to peripheral areas so that they would represent sufficient financial appeal to prospective investors, quickly "the concept of SEZs became an instrument of political power play and an object of pressure by local, regional, and national groups of vested interests" (Gwosdz et al. 2008 p. 830). It has been discussed in the previous chapters that large foreign enterprises pressurized the Polish government to grant

privileges to their investment sites in areas that did not meet the criteria for establishing SEZs. In the end, in 2000 the Sejm adopted an amendment to the Act on SEZs, which practically allowed for opening a subzone of existing SEZs in virtually any location (Gwosdz et al. 2008). Since then, the zones have ceased to exist as a tool of regional policy. Instead, they became a standard measure of promoting foreign investments.

Because of the lack of appropriate policies to address regional development problems, internal disparities were steadily growing and by the late 1990s the political leadership became increasingly aware of the problem. Furthermore, the prospects of EU accession negotiations and the administrative burden of pre-accession funds required the creation of an institutional infrastructure for regional development policy. In short, the Polish government had to formulate a clearer stance towards the issue. In 1997, the responsibility for regional policy was transferred to the Ministry of Economy and a new body, the Government Centre for Strategic Planning was also established. The increase of the share of regional policy expenditure from the state budget from 0.1 percent in 1993 to 0.17 percent by 1998[91] also showed that this policy field would gain greater attention in the future (Kozak 2000). The following period was characterized by domestic debates about the scope and goals of regional policy and the often ambiguous expectations of the EU.

### *4.3.4 Hungary*

Hungary inherited considerable regional disparities from the pre-war period: the major dividing line appeared between areas that had an already developed industrial base and those that were primarily agricultural. In addition, the extremely Budapest-centric spatial structure generated persistent economic inequality between the capital city and the rest of the country (Horváth 2000). The industrialization programmes implemented by the communist governments between 1950 and 1980 aimed at locating industry in the backward areas to decrease the dominance of Budapest and also to reduce the share of agricultural labour, which constituted more than half of the country's workforce after WWII (Harcsa et al. 1998). This is partly the reason why among the Visegrad states Hungary had the most elaborate system of

[91] This sum approximately amounted to 0.08 % of the country's GDP in 1998. *Source*: the author's own calculation based on Kozak (2000).

regional planning before the change of regime, although it was dominated by sectoral rather than territorial considerations (Downes 1996; Horváth 2000).

The centrally planned and administered programmes succeeded in that the importance of Budapest in industrial production diminished: while more than half of the country's industrial workforce was located there after the war, this share dropped to one-third by the 1970s and further declined to one-fourth by the 1980s (Lackó 1984). However, economic convergence between the regions was limited because regional interests hardly appeared in the development plans (Pálné Kovács et al. 2004). It soon became apparent that efficient industrial production was possible primarily where industry had already been located (Lackó 1984 p. 149). Because of this, in 1971 the government renewed the regional policy objectives to focus on the optimal utilization of economic resources and on the regional convergence of the living conditions of the population (Enyedi 1984). Nevertheless, sectoral decisions continued to dominate regional policy and by the early 1980s regional disparities were rising again. In 1985, a parliamentary decree specified that the long-term task of regional policy was to concentrate on economic restructuring and modernization but due to financial constraints the decree was not implemented (Downes 2000).

After the regime change, the country faced a sharp and growing east-west development divide and the overly dominant position of the capital city. In addition, unemployment rates were steeply rising in the backward eastern counties, which were affected by the crisis in heavy industry. In spite of this, the first, democratically elected centre-right government rejected the idea of pursuing a regional policy because this approach was associated with the discredited practice of central planning (Horváth 2001 p. 390). At the same time, the government was preoccupied with the pressing issues of macroeconomic adjustment thus it paid relatively little attention to regional disparities. Although the Ministry for Environmental Protection and Regional Development was established in 1990, it remained weak, understaffed and failed to coordinate the independent regional policy initiatives of other sectoral ministries (Horváth 2001). Moreover, it was in direct conflict with the powerful Ministry of Interior, which was responsible for settlement planning (Downes 2000).

Centralization has traditionally been one of the main features of the Hungarian state which was reinforced by the territorial restructuring in 1990. Although the counties continued to serves as the intermediate tier of state administration, the Local Government Act gave significant powers to the lowest administrative level, the municipalities (Horváth 2000). The

public administration reform also strengthened the role of sectoral ministries in formulating regional policy initiatives relative to the Ministry for Environmental Protection and Regional Development, which did not have regional partners to rely on. Because of this, in the early years of transition regional policy was characterized by several uncoordinated, independent sectoral initiatives with a lack of an overall concept or strategy, which resulted in the fragmentation of the limited financial resources (Downes 2000; Fazekas 1992; Horváth 2001).

Within this unsettled institutional context, initial regional policy measures were *ad hoc* government decrees, which mostly constituted of active labour market interventions such as retraining programs and job creation schemes focusing on the eastern crisis regions, particularly in Borsod-Abaúj-Zemplén and Szabolcs-Szatmár-Bereg (Fazekas 1992; Horváth 2001). Nevertheless, in 1991 the government created the Regional Development Fund (RDF), which became the most important tool of regional policy. In the next two years the aims and objectives of the fund were clarified and several income sources, including privatization revenues, were allocated for its purposes. The fund, which was a highly centralized instrument, provided repayable and non-repayable subsidies to the recipients (Downes 2000).

In 1993, the government adopted a decree which regulated the eligibility criteria for funds disbursed through the RDF. Instead of the counties, this document treated settlements as the basic units of designation. The decree classified the settlements into four categories[92] according to their level of backwardness which was assessed by their location and main socio-economic indicators (Bachtler and Downes 2000; Downes 1996, 2000). The RDF thus clearly served the goal of assisting towns and villages in the lagging behind areas. In spite of these institutional developments, the amount of funds spent on regional development remained low and sectoral aspects kept dominating the policy because nine ministries shared the responsibility for fund allocation (Horváth 2001).

The 1994 parliamentary elections, which gave power to a socialist-liberal coalition, brought fundamental changes to regional policy. The socialists treated territorial issues as a top priority because the party's strongholds were the most crisis-ridden, backward areas of the country. The budget for regional development purposes increased accordingly and by 1998 it exceeded 0.14 percent of GDP.[93] Even though this proportion is still very low compared to

[92] The four categories were (1) backward settlements; (2) settlements located in backward areas but not backward in themselves; (3) settlements with unemployment levels 1.5 times higher than the national average; and (4) settlements requiring modernization (Bachtler and Downes 2000; Downes 2000).
[93] *Source*: the author's own calculation based on Dobozi (2000 p. 3).

Western European standards, among the V4 it represented the highest regional policy spending relative to GDP.

In this period, the most significant development was the approval of the Act on Regional Development and Physical Planning in 1996. With this piece of legislation Hungary became the first Visegrad country to adopt a comprehensive regional policy concept, which, to a great extent, was in line with the EU's cohesion policy (Downes 1996, 2000; Horváth 2001). The law's key objectives represented a shift away from equity to competitiveness. In fact, a strange mixture of equity and competitiveness elements characterized the bill. On the one hand, it formulated the goal of assisting the development of market economy in every region. On the other hand, it prescribed the reduction of disparities between Budapest and the rest of the country as well as between prosperous and lagging regions (Downes 2000). Although a parliamentary decree in 1997 specified that maximum a third of the Hungarian population could be included within the assisted areas at any given time (Bachtler and Downes 2000), it followed from the competitiveness objective that development funds were less spatially concentrated than in the previous period (Horváth 2001).

The legislation also complied with EU practice in that instead of settlements, it defined intermediate-level territorial units (counties) as the basic targets for support. The four, partially overlapping categories of designated areas (socially and economically less developed areas, industrial restructuring areas, agricultural areas and areas of high unemployment) reflected EU influence as well because they resembled the categories of the assisted regions of the EU's cohesion policy. After the law entered into force, the Regional Development Fund was replaced with the Targeted Budgetary Allocation for Regional Development and the Spatial Equalization Financial Assistance (available exclusively for local governments), which became the main financial instruments of the Hungarian regional policy in the following years.

In terms of decision-making structure, the law made a formal step towards decentralization because it created County- and Regional Development Councils, which were assigned the task of coordinating development ideas between the central and local governments. The councils also decided about the allocation of state development funds within their jurisdiction. Although the development councils had ambiguous legal status and limited powers (Downes 2000), the law encouraged bottom-up initiatives as it allowed sub-national administrative units to cooperate and form voluntary development associations. However, the centre-right

coalition which followed the socialist-liberal cabinet in 1998 introduced an amendment to the law to ensure that central state officials would dominate the regional development councils at the expense of local actors (Pálné Kovács et al. 2004). In spite of this, by the late 1990s the Hungarian regional policy was the most complex one among the Visegrad states (Horváth 2001) and because of its close conformity with EU policies, it set a model for other post-communist countries to follow (Downes 2000).

## 4.4 Regional development policies in the Visegrad countries in the early 1990s: similarities and differences

After the change of regime, the regional policies of the Visegrad countries were strongly determined by communist legacies and because of this, they shared several common features. On the one hand, they were dominated by sectoral initiatives of low coherence which caused the fragmentation of the limited financial resources across sectoral ministries that formulated and implemented their own, mostly uncoordinated approaches. On the other hand, the centralized decision-making structures did not allow for regional and local needs to systematically appear and influence central (or ministerial) decisions. At the same time, because the V4 governments were preoccupied with the more urgent macroeconomic challenges of transition, relatively little political attention and financial resources were devoted to handling regional disparities: in much of the 1990s, annual regional policy spending hardly reached 0.1 percent of GDP. Nevertheless, the funds allocated for regional policy mostly targeted backward areas that were suffering either from high levels of unemployment, industrial decline or peripheral location. The regional policies of the V4 thus served the equity objective in this period but they failed to deliver any visible results and the developmental gap between prosperous and lagging regions kept growing.

In spite of sharing the above characteristics, Hungary differed from the other V4 countries in that it became the first state to adopt a comprehensive regional policy framework that was in close compliance with the EU's practice. This peculiarity begs for explanation: why did Hungary deviate from the trend and what are the reasons for the seemingly greater EU influence in shaping the early Hungarian approaches to regional policy? The solution to this puzzle lies in the fact that contrary to the other countries, domestic political preferences in Hungary were to a great extent in line with the requirements of the EU.

In the early years of transition, the EU's influence on domestic regional policies appeared in a subtle, indirect way. Soon after the regime change, the European Union created financial instruments to assist the transition of post-communist Central European countries. The most important EU measure was the PHARE programme, which, besides serving other objectives, was also dedicated to pilot projects that promoted regional development and institution building in backward areas. Initially, Hungary and Poland benefited from the funds and in both countries a major PHARE regional development project commenced in 1993, which followed some of the basic principles of similar programmes in EU member states. The PHARE-Struder in Poland was implemented in six problem regions and it was the largest externally financed regional development programme in the Visegrad countries until 2000 (Kozak 2000). In Hungary, a similar pilot project was running in the eastern counties of Borsod-Abaúj-Zemplén and Szabolcs-Szatmár-Bereg between 1993 and 1996 (Downes 2000).

In order to meet the administrative requirements of the funds, the central governments established dedicated agencies, which were also partly financed by the EU. The Polish Agency for Regional Development was created in 1993 and became responsible for fund management and implementation, while the Central Office of Planning (founded in 1992) was responsible for developing the framework of the future Polish regional policy (Bachtler and Downes 1999; Kozak 2000). In Hungary, the PHARE Regional Programme Office, which was established in 1993 within the Ministry for Environmental Protection and Regional Development, was charged with the task of project implementation.[94] The experts working for these agencies became acquainted with the basic principles of EU regional policy and also advised government officials in connection with issues of regional development.



Although both in Poland and Hungary the EU-funded projects represented a reference point for the initial preparation of national regional policies, they became a source of inspiration only in Hungary. This is because in Poland regional policy was strongly linked to the issue of territorial reform, on which subsequent governments were unable to agree, whereas in Hungary the political conflict over regionalization was de-coupled from the 1996 Act on

[94] *Source*: *A területfejlesztés eszköz- és intézményrendszerének alakulása* [The evolution of the instruments and institutional setup of spatial development]. 2000. VÁTI. (Available at: www.vati.hu/static/otk/hun/MellekletVhun.pdf)

Regional Development. The Polish centre-left coalition, which came into power in 1993, rejected the previous government's plan of decentralization, which would have restored the inter-war voivodships and eliminated the existing intermediate tier of administration that provided a powerful political hinterland for the left (Brusis 2002; Gwiazda 2013). At the same time, internal political disagreements of the Democratic Left Alliance (SLD), which was the main coalition partner comprising of more than 30 small political groupings, prevented the government from reaching a consensus on an alternative plan on territorial restructuring (O'Dwyer 2006).

Similar issues hindered the adoption of an EU-conform regional policy in the Czech and Slovak Republics. Although the Czech constitution mandated the parliament to create self-elected regional governments, the centre-right coalition led by Václav Klaus opposed it on the grounds that decentralization would tie the central government's hands in economic policy making and would lead to the atomization of the state (O'Dwyer 2006 p. 248). As it has been already discussed, they also rejected the idea of regional policy interventions. As a consequence, the lack of political commitment to territorial reforms were reflected in the uncoordinated, incoherent, *ad hoc* regional policy approaches (Ferry and Mcmaster 2005 p. 27). In Slovakia, the Mečiar-government did not develop a regional policy concept either. Instead, they hijacked the 1996 territorial reform in a way that the new tiers of state administration became subjects of political patronage and remained a highly contested political issue throughout the 1990s.

In contrast, the Hungarian parliamentary parties shared the view that a comprehensive regional policy framework was necessary to tackle regional disparities. Disagreement, however, emerged around the issue of whether the policy should be based on autonomous regions representing groups of counties (decentralization) or the regions should remain purely administrative units (centralization). Although the debate did not settle, after the 1994 elections the socialists-led Ministry for Environmental Protection and Regional Development began working on the draft of the law on regional policy, in which PHARE-funded experts were heavily involved (Fowler 2001). The Hungarian Socialist Party (MSZP) was committed to the case because on the one hand, some of its strongholds were the most backward northeastern regions of Hungary which were to become the greatest beneficiaries of regional policy. On the other hand, after the local government elections in 1994, the party gained strong positions in most of the 19 county councils, which provided a further impetus for

adopting a law that would allow for the strengthening of the party's local positions (Illés 2001).

In the end, the draft bill presented to the parliament was replete with EU regional policy concepts and terminology and its justification also referred to the EU. However, because of the lack of consensus on the direction of territorial reform, the Act on Regional Development did not settle the regional division of the country. Instead, it temporarily formed seven NUTS 2 level units, which represented groups of counties, and allowed for the voluntary creation of county- and regional development councils, which were assigned with the task of drafting and coordinating regional development programmes. However, their legal status remained ambiguous precisely because of the fact that the delineation of the borders of the NUTS 2 regions was provisional. In spite of this, MSZP succeeded in getting the party's position across the parliament and the regional policy law closely reflected the socialists' preferences. Although it was more of a product of domestic political considerations than that of the EU's external influence, Hungary's Act on Regional Development became a reference point for the European Commission in its subsequent evaluations of the other candidates' progress in regional policy.

All things considered, the early years of transition did not bring dramatic changes to former regional policy practices in the Visegrad states. First, regional disparities were considered as a second-rank problem because governments were overwhelmed by the challenges of massive economic decline that accompanied the change of regime. Second, it follows that financial resources available for regional interventions were extremely limited. Third, because of the lack of a strong intermediate tier of state administration and because of the long-standing legacy of centralized state bureaucracies, uncoordinated sectoral interests with little territorial considerations dominated regional interventions. However, those few initiatives that gained a spatial aspect targeted backward regions and in this sense they fulfilled the equity objective. With the exception of Hungary, the EU's influence on regional policies remained limited in this period but even there the adoption of an EU-compatible regional policy framework can mostly be attributed to domestic political preferences rather than to the EU's role.

On the one hand, none of the Visegrad governments were able or willing to give an adequate policy response to the phenomenon of uneven regional development. On the other hand, the introduction of comprehensive economic reforms allowed for the spatially divisive forces of

the market economy to freely operate: the already relatively well-developed regions quickly adjusted to the new circumstances while the laggards fell behind. As a consequence, regional disparities were rising throughout the 1990s. However, growing political awareness of spatial inequalities and the inflow of EU pre-accession funds heightened the profile of regional development issues and triggered a shift in domestic policy approaches. The following sub-section analyzes these developments.

### 4.5 Regulatory convergence of the Visegrad regional policies: shifting from equity to competitiveness

The regional (or cohesion) policy of the European Union was launched in 1975 with the introduction of the European Regional Development Fund (ERDF). Although two other funds with somewhat related purpose, the European Social Fund and the European Agricultural Guidance and Guarantee Fund had already existed since 1958, the creation of the ERDF is considered as the real birth of the EU's cohesion policy (Allen 2005). These three financial instruments, which constitute the main building blocks of the policy, are commonly referred to as the Structural Funds.[95] It was a legal obligation for the members of the Community to adopt regional policy at the supranational level because Article 158 of the Treaty Establishing the European Community (the Treaty of Rome)[96] stipulated that "in order to promote its overall harmonious development, the Union shall develop and pursue its actions leading to the strengthening of its economic, social and territorial cohesion" and that "the Union shall aim at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions". The creation of an EU-level regional policy was justified by the expectation that European integration may aggravate economic disparities and also facilitate the decline of traditional industries. European regional policy is therefore an attempt to "match the territorial scale of the response with the source of the economic problems" (Begg 2010 p. 81). Financial assistance to backward regions was expected to increase growth rates by enhancing the supply conditions of regional economies (Frisina 2008).

[95] Besides the Structural Funds, another important instrument of the EU's cohesion policy is the Cohesion Fund. Member States with their Gross National Income (GNI) per capita lower than 90 % of the EU average benefit from this instrument. The Cohesion Fund supports large infrastructure and environmental investments of national significance. The Cohesion Fund does not have a territorial focus which is the reason why only the Structural Funds are discussed here.

[96] The current Article 174 of the Treaty on the Functioning of the European Union (TFEU).

However, as Begg noted, the EU's regional policy "has always had to reconcile challenges of aggregate competitiveness of an economy and the stimulation of target areas" (2010 p. 92). In other words, the dilemma of promoting external or internal convergence has characterized the history of the policy. This tension in territorial focus gained an even greater significance with the eastern enlargement because the new member states were far below the EU's average level of development but they also demonstrated substantial internal regional disparities, too. In these circumstances, it remained an open question whether the policy should assist national "champions" and growth poles to accelerate catch-up or should it rather promote the equity objective by focusing on lagging behind territories (Ferry and McMaster 2013a p. 1515)? With respect to assisting backward areas, the concern was if cohesion policy can "counteract the 'natural' processes of regional development in an enlarged EU?" or, from a more general level, "can any policy accelerate growth in the less-developed regions so as to start closing the gap with the most advanced ones?" (Bachtler and Gorzelak 2007 p. 312). As the following sections show, these questions remained unanswered because in practice the EU's cohesion policy has rather promoted external than internal convergence.

Apart from providing development funds to the designated regions, the EU's policy was also expected to affect the territorial administration of the new members and their domestic decision-making structures. This was based on the experience of old member states where cohesion policy was believed to facilitate processes of regionalization by assuming an increased role for regional bodies in administering the policy (Allen 2005). Although evidence for the EU's direct influence is mixed in this respect (Bache and Jones 2000), the 1988 reforms of the policy introduced those principles that were anticipated to affect domestic institutional arrangements. On the one hand, the additionality principle requires that European grants be additional to national assistance to target regions. On the other hand, the concentration principle underlines that the EU's resources should concentrate in those areas that are the most in need of financial help. Finally, the partnership principle recognizes the right of sub-national actors to formally participate in the decision-making process, which has challenged the existing hierarchical relationships between central governments and local and regional authorities (Thielemann 2002).

Because of the low status and weak institutional infrastructure of domestic regional policies in post-communist East Central Europe, many scholars expected strong Europeanization effects (Bachtler and Downes 1999; Paraskevopoulos and Leonardi 2004). Before enlargement, most

scholarly attention was devoted to governance reforms and the discussions revolved around whether the candidate countries would decentralize their territorial systems (Buzogány and Korkut 2013). This was motivated by the belief that the EU and in particular the European Commission promoted decentralization, which would have implied the creation of regional self-governance structures (Baun and Marek 2006). As it has already been discussed, the direction of territorial reforms was a subject of intense political contestation in the Visegrad countries and this may explain why less consideration was given to the seemingly more technical issue of whether the EU's practice of designating assisted areas would be appropriate for the domestic circumstances (Bachtler and Downes 2000 p. 173).

However, expectations about the EU's decentralizing influence in Central and Eastern Europe were based on wishful thinking rather than reality. Although the regional policy requirements of EU membership put significant pressure on domestic regional policies (Ferry and McMaster 2013b), accession conditions did not prescribe any formal criteria regarding territorial governance. Candidates were simply required to develop adequate institutional structures and administrative capacities to efficiently manage the funds (Drevet 2000). The main tasks involved the introduction of a territorial classification that complied with the NUTS system, the design of a development plan and related procedures that would satisfy the requirements of multi-annual programming and would ensure the implementation of the partnership principle. Finally, the candidates had to demonstrate sufficient administrative capacity, which involved the clear definition of tasks and responsibilities of all the domestic institutions (Hughes et al. 2004 p. 534). None of these conditions contained anything prescriptive about how the institutional infrastructure had to be set up.

This should not come as a surprise because national procedures for administering the EU's regional development funds are not uniform: they vary in each member state (Grabbe 2001). As Hughes, Sasse and Gordon argue, "there are few areas of the *acquis* as 'thin' as that […] dealing with regional policy. In particular, EU law, regulations and guidelines are sparse on the institutional requirements for the implementation of regional policy" (2004 p. 532). To put it differently, a uniform institutional model of administering regional assistance does not exist in the EU, only the basic principles set by Directive EC No. 1260/1999 had to be respected (Sodomka 2003). In sum, the European Union does not have the legal authority to demand harmonization of the regional policy systems of the member states (Ferry and McMaster

2013a p. 1505), neither there is a compulsory EU law concerning regionalization (Ferry 2013 p. 1584).

To be sure, the EU did Europeanize the regional policies of the Visegrad countries, but the extent of this external influence needs to be precisely determined. This section argues that while the domestic decision-making structures of regional policy have not been substantially affected, the targeting of assisted areas and the policy objectives formulated in the national development programmes reflect a nearly complete incorporation of EU influences. Although the application of the partnership principle could have triggered regionalization in the new member states, as it will be discussed below, in the final phase of accession negotiations even the European Commission worked against it. Regarding the concentration principle, it would have implied that EU funds would target the most backward regions of the new member states. In reality, due to the mechanical application of the EU's area designation practices, the whole territory of the V4 (and ECE) became eligible for funding, which caused a shift in the domestic policy objectives, too. Because universal targeting maximized the amount of supranational transfers to the new members, it also made great financial and political sense for the central governments to insist on the direct application of the existing eligibility criteria.

As the financial resources allocated to the candidate countries were growing, so did the EU's external influence and the domestic profile of regional policy. Initially, the PHARE programme served as the main instrument of the EU, which, until 1998, focused on technical assistance, institution and regional capacity building (Bailey and De Propris 2004; Bruszt 2008). Although not all the PHARE funds were devoted to economic and social cohesion, regional development constituted a key element of the programme. With the launch of the accession negotiations, PHARE was reoriented[97] and became the main pre-accession vehicle assisting candidates in the adoption of the *acquis* and in the preparation for administering and implementing Structural Funds programmes. In line with this, approximately one third of the funds were explicitly dedicated to regional development projects (Bailey and De Propris 2004 p. 83). This was an important step in the process of regulatory convergence because the

[97] In 2000, the European Commission introduced two other pre-accession financial instruments. The Instrument for Structural Policies for Pre-Accession (ISPA), which emulated the Cohesion Fund, was dedicated to large infrastructure and environmental projects. The Special Accession Programme for Agriculture and Rural Development (SAPARD) was earmarked for assisting agricultural adjustment and prepared the candidates for implementing the Common Agricultural Policy. Neither ISPA nor SAPARD had an explicit territorial focus unlike the regional development projects of PHARE.

candidate countries were urged to develop such regional policy infrastructures that were capable of administering the funds.

At the start of the accession negotiations, key Commission officials preferred political decentralization and emphasized the need to apply the partnership principle in the regional policies. The 1997 country opinions also reflected these concerns. At this stage, the Commission suggested the strengthening of regional autonomy and a greater involvement of regional actors in the enlargement process (Hughes et al. 2004). Because of the reasons discussed in the previous sections, candidate countries were reluctant to respond positively to the rather informal calls for decentralization. In addition, as problems with the management of pre-accession funds emerged, there was a growing concern in the European Commission about the ability of the candidates to effectively participate in Structural Funds. Especially the weak regional actors and the nearly absent mechanisms for bringing them together raised the eyebrows of the officials in Brussels (Bailey and De Propris 2004 p. 91).

Tensions soon arose within the Commission about the preferred direction of regional reforms. As the time of accession drew nearer, the EC realized the inherent conflict between the goals of regionalization and effective fund management (Bachtler and McMaster 2007) and it began to stress the need for efficient administration of the Structural Funds instead of suggesting political decentralization (Ferry and McMaster 2013a; Grabbe 2001). After the Santer Commission had resigned due to a corruption scandal in 1999, the EC's approach fundamentally changed and in both formal and informal communications the Commission revealed that "it wanted centralized management of funds so as to maximize efficiency, streamlining and control of expenditures" (Hughes et al. 2004 p. 541). Ironically, the Commission's inconsistent signals and the shift in its approach towards the candidates' territorial reforms undermined its own agenda of empowering sub-national actors. Contrary to the initial expectations, the EU's influence has reinforced the highly centralized decision-making structures of domestic regional policies. This has left local actors in a position of 'learned helplessness' (Bruszt 2008 p. 619) which further strengthened the dominance of the central administration in regional policy.

However, as Scherpereel noted, "the EU may have been a weak force in the process of establishing self-governing regions, but it has played a strong role in driving regional developments after 2004" (2010 p. 49). In the 1990s, the V4 governments dedicated very

limited resources for regional policy but the inflow of EU funds substantially changed this situation. Table 4.1 reveals that in the pre-accession period the total amount of PHARE commitments roughly matched the domestic financial allocations for regional policy, relative to GDP. This is because approximately one third of the PHARE funds were spent on regional development projects, which was proportional to the estimated average V4 regional policy spending of 0.1 percent of GDP. After joining the EU, the Visegrad countries were literally overwhelmed by the inflow of Structural Funds: the burden on central administrations multiplied, so as the amount of funds compared to the previous period. Furthermore, because of the additionality principle that prescribes national co-financing, domestic public resources had to complement EU funds, which put significant financial constraints on state budgets.

The steep increase in external funding for regional development had to be matched with domestic resources, which triggered a cutback in national regional programmes so that their funding could be re-directed to co-financing EU projects (Bachtler and Wishlade 2011). In the end, national regional policies have been subsumed into the EU's cohesion policy programmes (Ferry and McMaster 2013a). At the same time, it was in the interest of central governments to maximize fund absorption, which was possible only by steering domestic programmes and resources in line with the EU's cohesion policy. As a result, the legislative background and the policy objectives of regional policies were drafted according to the real or perceived EU requirements (Bachtler and Downes 1999). Unlike in the case of territorial reforms, the formulation of regional policy objectives was heavily influenced by the EU.

**Table 4.1: Distribution of PHARE and Structural Funds commitments across the V4 (1990-2013)**

| | PHARE funds (in millions of EUR) | | | | Structural Funds (in millions of EUR) | | | |
|---|---|---|---|---|---|---|---|---|
| | 1990-1998 | % of GDP | 1999-2004 | % of GDP | 2004-2006 | % of GDP | 2007-2013 | % of GDP |
| Czech Republic | 389.73[a] | 0.14 | 508.51 | 0.11 | 1454 | 0.46 | 17873 | 1.72 |
| Hungary | 864.04 | 0.28[b] | 598.55 | 0.16 | 1995.7 | 0.77 | 16665 | 2.43 |
| Poland | 1731.51 | 0.20[b] | 2199.45 | 0.19 | 8275.8 | 1.15 | 45108 | 1.82 |
| Slovakia | 253.23[a] | 0.27 | 449.16 | 0.29 | 1121.7 | 0.96 | 7689 | 1.67 |

*Source*: the author's own calculation based on PHARE Annual Reports (various years), the 19th Annual Report on the Implementation of the Structural Funds (2009), and the National Strategic Reference Frameworks for 2007-2013. Data on Gross Domestic Product was obtained from the Eurostat unless otherwise indicated.
[a] Funds allocated between 1993 and 1998
[b] The calculation is based on GDP data from the World Bank Database

Another important aspect of this external influence was that after the European Council had launched the Lisbon Agenda in 2000, a visible shift took place in the EU's policy practice. Since then, cohesion policy has emphasized regional growth and competitiveness rather than the equity-based redistribution of resources: "instead of targeting intervention selectively on struggling regions, newer regional policies encourage development in all territories" (Ferry and McMaster 2013a p. 1509). This is the so-called place-based approach, which has recently gained global prominence (Ishigaki 2010). The Barca-report, which outlined a potential reform path for the EU's cohesion policy, defined place-based regional policy as financial support differentiated according to regional needs in order to mobilize endogenous growth potentials (Barca 2009). The place-based policy stresses the efficient use of development funds and in this respect favours competitiveness over equity because it does not prioritize backward areas. Instead, it emphasizes "the ability of all territories to grow, drawing on their own resources" (Bachtler and Wishlade 2011 p. 56).

The new orientation of the EU's cohesion policy has been incorporated to the national regional policy documents of the V4, which were motivated by the goal of maximizing fund absorption. The priority attached to competitiveness-related themes has increased, while the national regional development plans explicitly stated that their main purpose was to take full advantage of EU funds. This is also consistent with the application of the EU's eligibility criteria according to which all the Visegrad regions became a target of Structural Funds both in the 2004-2006 and the 2007-2013 programming cycles. Before EU accession, the spatial coverage of assisted areas in the V4 ranged between 25-35 percent of the national population (Bachtler and Downes 2000 p. 173), which rose to 100 percent with EU membership. This is anything but the promotion of internal convergence. Indeed, as Ferry argue, in these circumstances "the most prosperous regions, with better socio-economic endowments and better institutions […] may be better placed to benefit" (2013 p. 1584). In the end, the regional development policies of the V4 have converged on EU rules which has triggered a shift in the designation of assisted areas and in the policy objectives, while the centralized decision-making systems have mostly remained in place. The following sections highlight how these processes evolved in each Visegrad state.

*4.5.1 Czech Republic*

Towards the end of the 1990s, the EU's regulatory influence on the Czech regional policy appeared most visibly in the domestic debates about the territorial reform. The previous section highlighted that this was a politically contested issue because in spite of the constitutional commitment to create self-governing regions, the centre-right government led by Václav Klaus postponed implementation. However, the reform gained momentum when in its June 1997 opinion the European Commission openly criticized the Czech government for the absence of elected bodies between the central state and the local level (Baun and Marek 2006). Nevertheless, changes in the domestic political setting played a more important role in advancing the case of the regional level than external influences, which served as an empowering factor for the social democratic opposition that promoted regionalization (Brusis 2005).

After the right-wing ODS had lost its parliamentary majority in 1996, the Czech social democrats were in a better position to influence legislation. Referring to the EU's demands, they succeeded in placing the issue of territorial reform on the political agenda and also worked out a cross-party agreement. In December 1997, the parliament passed Constitutional Act No. 347/1997, which established 14 regions (*kraje*) with elected self-government bodies. However, ODS held up the preparation of the necessary legislation that would have defined the operating conditions of the regions (Červený and Andrle 2000). Because of this, the law entered into force with a significant delay in January 2000. Nevertheless, the 14 *kraje* were too small to satisfy the criteria for NUTS 2 regions thus they were grouped together to form eight purely administrative regions without any legal authority. These eight statistical planning units ("cohesion regions") became the basic territorial entitites eligible for EU funding. The mismatch between the boundaries of self-governing and NUTS 2 regions was a concession to ODS because it ensured the preservation of central government control over the implementation of Structural Funds programmes (O'Dwyer 2006 p. 251).

In order to facilitate preparations for EU accession, in 1998 the social democratic government, which declared to treat regional policy as an outstanding priority (Blažek and Boeckhout 2000), created a working group of 12 governmental bodies chaired by the Ministry of Regional Development. The ministry was assigned the responsibility for coordinating the activities in the field of economic and social cohesion. In the same year, the Principles of

Government Regional Policy were approved, which designated 18 of the 77 Czech districts (about 22 percent of the population) eligible for development support (Bachtler and Downes 2000). The document thus demonstrated commitment to the equity objective. However, a gradual shift in the policy objectives took place as EU accession was approaching. In 2000, the parliament adopted the Act on Support for Regional Development. The law, which already reflected EU influence, defined the principles of Czech regional policy, including its priorities and institutional structure (Sodomka 2003). The document formulated very general objectives because it set the "well-balanced development of the country and reduction of regional disparities" as its main strategic goal.[98] In spite of this, the strategy showed preference for equalizing territorial differences.

EU membership brought major changes to the Czech regional development policy. The European Commission required all the prospective members to prepare a National Development Plan (NDP) which served as the main document for the implementation of Structural Funds programmes between 2004 and 2006. The NDPs contained those operational programmes (OP), which the EU would be funding. The Czech regions were lobbying for the inclusion of regional operational programmes (ROPs) into the NDP because they expected to participate in their implementation. The NDP was thus drafted in two versions: one with six sectoral operational programmes and seven ROPs for each NUTS 2 region and a single programming document for Prague, and another version with a joint regional operational programme besides the sectoral OPs. The problem with the joint regional OP was that it did not take into account specific regional needs and priorities as it only referred to general problems. Nevertheless, its implementation required a much simpler and shorter process than it would have been the case with the separate regional OPs (Sodomka 2003). The Ministry for Regional Development preferred the joint version while the regions favoured the ROPs. The *kraj* administrations had a strong interest in the separate regional operational programmes because they would have gained control over additional financial resources, which would have also challenged the balance of power between the central government and the regions (Baun and Marek 2006).

By referring to the EU's growing concerns about the weak regional administrative capacities and its recommendations for creating a simplified, efficient decision-making structure, in

[98] Article 4(1) of Act No.248/2000 Coll. of June 29, 2000 on Support to Regional Development (Available at: http://www.mvcr.cz/soubor/act-on-support-to-regional-development-2000-pdf.aspx).

January 2002 the Czech government decided to abandon the ROPs. This caused a major disappointment for regional leaders but they did not voice their disagreement in a coordinated manner, neither did their responses reflect party affiliation (Baun and Marek 2006 p. 416). The final NDP approved by the Commission contained four sectoral OPs (infrastructure, industry and enterprise, human resources development, rural development), the joint ROP and two single programming documents for Prague. The joint regional operational programme favoured those regions that possessed greater absorption capacity because it allowed for financial transfers across regions if any of them was unable to use the total amount of the available funding (Sodomka 2003). The Ministry for Regional Development retained its principal role in managing and implementing regional policy, while contrary to their aspirations, sub-national actors were not substantially involved in the planning and implementation of the programmes (Scherpereel 2010). At the same time, by joining the EU, the share of the Czech population living in assisted areas jumped to 100 percent because each region became eligible for the Structural Funds. While Prague was classified as an Objective 2 region, the others received financial support as Objective 1 units.[99] The EU's impact therefore reinforced the centralized system of decision-making but shifted the focus of financial assistance from backward areas to universal targeting.

With the 2007-2013 programming cycle, the decision-making structure was slightly decentralized only to reveal further systemic weaknesses of the regional administrations. For the first time, the Czech Republic opted for the execution of regional operational programmes: the National Strategic Reference Framework, which was the new programming document submitted to the Commission, contained sectoral OPs, seven regional OPs and a separate programme for Prague. Regional councils of the NUTS 2 cohesion regions were also established with ten representatives that the *kraj* assemblies elected except if the *kraj* boundaries corresponded to a NUTS 2 region.[100] In that case the regional parliaments fulfilled



[99] In the 2000-2006 programming period EU regions assisted by the Structural Funds were classified into three categories. The Objective 1 regions, of which GDP per capita was lower than 75 % of the EU average, were considered as lagging behind areas and were eligible for the highest amount of financial support. Industrial, urban or rural areas experiencing structural difficulties qualified as Objective 2 regions, while Objective 3 regions received funds for job creation and training projects. The Objective 1 regions were determined at the NUTS 2 level, whereas Objective 2 and 3 applied to NUTS 3 territories. All the Visegrad regions qualified as Objective 1 areas in the 2004-2006 budgetary cycle, except for Prague and Bratislava, which became Objective 2 regions. *Source*: Council Regulation (EC) No. 1260/1999 and National Maps of Objective 1 and 2 Areas (http://ec.europa.eu/regional_policy/sources/graph/cartes_en.htm).

[100] Like in the case of the Moravskoslezsky region which is both a NUTS 2 and a NUTS 3 unit.

the council's role (Ferry and Mcmaster 2005; Ishigaki 2010). The offices of the regional councils became the managing authorities of the regional operational programmes.

In spite of the increased formal role of the cohesion regions in Structural Funds programmes, several factors hindered their effective participation. First, while the NUTS 2 level regions disposed of significant resources through the ROPs, they lacked political accountability. At the same time, the development function of the *kraje*, which possessed a clear democratic mandate, was limited because most of the EU programmes and funding were targeting the higher-level NUTS 2 units (Ferry and Mcmaster 2005). The mismatch between regional competencies and resources strengthened the central role of the government even though the management of the ROPs has been delegated to the cohesion regions. In addition, the parallel structures of the regionally managed ROPs and the centrally controlled payments became a source of conflict between the government and the sub-national level (Bachtler and McMaster 2007). The uncertainty surrounding the revenues of the self-governing regions – around 80 percent of their funding depended on state transfers – further undermined their ability to effectively participate in Structural Funds programmes and support development initiatives (Bachtler and McMaster 2007; Baun and Marek 2006; Ferry and Mcmaster 2005). On the one hand, the formal involvement of the regional level in the implementation of EU programmes did not substantially modify the centralized character of the decision-making system. On the other hand, regional dependency on state grants implied that the more prosperous regions enjoying relatively stable and sufficient own revenues were much better positioned to secure EU funds than the backward areas.

The EU's effect on the Czech regional policy objectives has also been somewhat ambiguous. While the 2000 Act on Support for Regional Development prioritized the equity objective, the Regional Development Strategy for 2007-2013 distinguished between national regional policies aiming at reducing territorial disparities and EU-financed programmes enhancing the country's external convergence. Although the document suggests a balance between domestic, equity-related objectives and externally funded, competitiveness-oriented aims (Ferry and McMaster 2013a p. 1512), in reality the Czech national regional policy has become subordinated to EU projects because independent domestic expenditures are extremely limited. The growing need but increasing difficulty to co-finance EU-funded projects draws domestic resources away from national programmes. As a consequence, the two streams of policies have practically become integrated in the 2007-2013 budgetary

period. A government decision from 2007 that abandoned two domestic programmes which had provided development support for the Moravskoslezsky, Ústecky and Liberecky regions clearly illustrate this phenomenon (Ishigaki 2010).

### *4.5.2 Slovakia*

Similar to the case of the Czech Republic, territorial restructuring and the creation of an EU-compatible institutional infrastructure for administering and managing EU-funds were the main regional-policy related challenges that the Slovak government faced at the end of the 1990s. After the centre-right opposition had won the parliamentary elections in 1998, the new coalition led by Mikuláš Dzurinda began working on a decentralization plan with the intention to redraw the boundaries of the existing regions, introduce regional elections and eliminate the local dominance of Mečiar's party, the HZDS. External pressure on Dzurinda's cabinet was also high because both in the 1997 country opinion and later, in the updated Accession Partnership document from 1999 the Commission explicitly urged the government to establish administrative structures that would allow for the country's participation in Structural Funds programmes in compliance with the partnership principle (Brusis 2002).

However, the government's proposal did not gain enough support within the coalition because the small parties were concerned about their possibly weak performance at the regional elections. In addition, the aspiration of the Party of the Hungarian Coalition (SMK) to create an ethnic Hungarian region in southwest Slovakia met firm resistance and caused further tensions within the government (Bitušíková 2002; Bochsler and Szöcsik 2013). HZDS took advantage of these internal conflicts and with the support of three of the five coalition parties, during the parliamentary debate it managed to transform the original proposal according to its own preferences (O'Dwyer 2006). In the end, the law adopted in 2001 introduced directly elected regional councils but also retained the existing eight regions and the previous system of government-appointed regional offices. The result was a dual structure of state-controlled regional offices and self-governing regions whose competencies and funding were not clarified, yet they became the NUTS 2 level units eligible for EU financial assistance (Hooghe, Schakel, et al. 2008; O'Dwyer 2006).

In order to meet the accession criteria, the Dzurinda government also created the basic institutional and legal framework for regional policy. In 1998, the Ministry for Construction and Regional Policy was established, which since then has served as the main authority responsible for the implementation and co-ordination of regional development programmes (Nižnanský and Širak 1999). The government also drafted a Strategy for Regional Development, which included a detailed assessment of the socio-economic situation of the districts and outlined the main objectives of regional policy. The strategy, which was approved by the parliament in 2001, stated that the operational principles of the EU's cohesion policy had to be taken into account in order to effectively utilize the future financial assistance provided by the Structural Funds. The document is confusing with respect to the development goals: on the one hand it promotes the reduction in regional disparities; on the other hand it identifies ten growth poles (the eight regional capitals and two other cities) that should receive priority in funding (Bachtler and Downes 2000). In this sense, the strategy prescribed the simultaneous pursuit of external and internal convergence, which itself represented a move away from equity to competitiveness.

Slovakia's National Development Plan for 2004-2006 reflected the EU's ambiguous signals about sub-national participation in Structural Funds management and implementation. Initially, the NDP contained individual regional operational programmes (ROPs), which would have been managed by the regional administrations. However, because the Commission expressed serious concerns about the preparedness and administrative capacity of the regional level, the ROPs were abandoned (Bachtler and McMaster 2007). The final version of the NDP included four sectoral operational programmes (infrastructure, human resources, industry and services, agriculture) and two single programming documents for the Bratislava region, which became an Objective 2 region while the other ones qualified as Objective 1. The document thus did not even contain a joint regional operational programme like the NDPs of the other V4 countries.

The Ministry for Construction and Regional Policy was assigned with the responsibility to manage the operational programmes and in this role it considered the regional administrations as rivals rather than allies: the regional level hardly had any role in project selection and administration, which further strengthened the centralized character of the decision-making structure (Scherpereel 2010). The 2007-2013 budgetary period brought some changes to this system because the National Strategic Reference Framework contained a regional operational

programme besides the sectoral OPs. Although even the regional OP remained centrally managed, sub-national bodies were granted some administrative authority in the implementation of the programme. Still, the prime responsibility for designing and implementing regional policy remained with the ministry.

While the decision-making structure of regional policy shows a slight move towards decentralization, the Slovak regional policy objectives reflect the recent shift in the EU's cohesion policy. Both the Regional Development Support Act, which was adopted in 2008, and the new National Strategy for Regional Development from 2010 have incorporated the place-based approach in that they emphasize the promotion of regional competitiveness by utilizing the endogenous potentials of the regions (Ishigaki 2010, Bachtler and Wishlade 2011). Although the new strategy also acknowledges the importance of reducing regional disparities, both domestic and EU financial assistance are increasingly concentrated on growth poles (Ishigaki 2010, p. 249) which may lead to further polarization. Furthermore, available domestic resources mostly co-finance Structural Funds projects and in this respect Slovakia's regional development policy is fully dependent on externally determined objectives and funding.

### *4.5.3 Poland*

In terms of the amount of allocated funds, Poland has become the greatest beneficiary of the EU's cohesion policy. This has placed regional issues among the top themes of the domestic political agenda. Similar to the other Visegrad countries, three key topics (the direction of territorial reform, the policy objectives and the decision-making structure) have dominated the internal debates about regional policy. In most of the cases the outcomes of these disputes resemble those of the other V4 states. There is an important exception though: decentralization in Poland has advanced much further than in the rest of East Central Europe.

In the 1990s, two competing visions emerged about the country's new administrative division. The Solidarity and post-Solidarity movements advocated decentralization in order to strengthen the competitive potential of the regions but also to destabilize the strong local base of the former communists. The post-communist Democratic Left Alliance (SLD) opposed these plans but also its ally, the Polish People's Party (PSL) rejected the idea on the grounds

that the creation of strong regions would endanger the uniformity of the state (Czernielewska et al. 2004; Gwiazda 2013). In 1997, a post-Solidarity coalition, the Solidarity Electoral Action (AWS) and the Freedom Union (UW) won the elections, which paved the way for the country's territorial restructuring.

Although AWS and UW were already committed to regional reform, they also capitalized on the European Commission's 1997 country opinion, in which it required the establishing of decentralized territorial units that would also be capable of administering Structural Funds. Accordingly, the new government referred to the EU's demands as one of the primary reasons for engaging in decentralization (Gwiazda 2013). The coalition promoted the introduction of a three-tier system where two additional territorial levels, the districts (*powiat*) and the voivodships (NUTS 2) would exist above the level of municipalities (*gmina*).

The number of regions had to be determined first. Based on a broad range of socio-economic criteria such as economic self-efficiency, diversified industrial profile, cohesive infrastructure and culture, policy experts recommended the establishing of 12 voivodships. However, the coalition parties preferred to have more of them (O'Dwyer 2006 pp. 243–244) because they wanted to consolidate staff from the previous system of 49 voivodships and also considered the reform as an opportunity for strengthening their own local base. In the end, the government proposed to create 16 voivodships and the number of *powiats* also rose from the initial 150 to 373 partly because in order to appease local leadership, those cities were also granted *powiat* status that had served as regional seats but lost their position because of the reform (O'Dwyer 2006).

In June 1998, the parliament approved the new territorial system of Poland, which entered into force in January 1999. Although the voivodships became self-governing units, a dual structure of state-appointed and locally elected leaders ensured their strong central control (Gorzelak 2000). The elected regional councils headed by the marshal constituted the self-governing structures, while the voivod, who was appointed by the prime minister, represented the central government and was responsible for the proper functioning of the state institutions operating in the region. The marshal's office was charged with the formulation and implementation of regional development policy although the central state exercised control over the content of the plans (Czernielewska et al. 2004). According to O'Dwyer, the territorial reorganization provided ample opportunities for political patronage because "in

each of the new regional and district elected councils, the victorious party or party coalition was in a position to set up its own administration" (2006 p. 243). Although the reform involved substantial decentralization, the creation of the two new administrative tiers also notably increased the size of public administration.

Besides territorial restructuring, the government introduced changes to the institutional infrastructure of regional policy. In August 1998, the Department for Regional Development was created within the Ministry of Economy to take responsibility for developing the national regional policy and to manage the PHARE funds (Bachtler and Downes 2000). Two years later, the Ministry of Regional Development and Public Works was established but because of its lack of proper competences, it failed to fulfill its role of coordinating the actions of other ministries with regional impact (Czernielewska et al. 2004 p. 493). After the post-Solidarity coalition had lost the elections in 2001, the SLD-PSL coalition returned to power and reassigned the Ministry of Economy with the task of managing regional policy. The institutional issues were finally settled when in October 2005 the right-wing government led by Kazimierz Marcinkiewicz established the Ministry of Regional Development to co-ordinate regional policies and funding (Ishigaki 2010), which has since been the central actor of the policy.

While the politically contentious issues of the territorial reform and the institutional setup of regional policy have mostly been settled by the mid-2000s, debates on the policy objectives are still underway. The key dilemma, as in all the other Visegrad states, has been about where to put the priority: should the development funds promote external or internal convergence of Poland or, in other words, should equality be chosen which would assist the weaker regions, or, on the contrary, competitiveness should be the goal, which would focus on the strong regions but possibly also widen regional disparities (Bański 2010; Ferry 2013; Kozak 2000). As EU financial assistance became the dominant source of funding, domestic initiatives have been gradually subsumed to EU programmes, which also involved a shift towards enhancing competitiveness and productivity in all the regions (Ishigaki 2010 p. 230). This is reflected both in the legislation and in the policy practice.

The AWS-UW government made the first attempts to establish a comprehensive legal framework for regional policy. In 2000, the parliament adopted the Law on Regional Development and in the same year the National Strategy for Regional Development

(*Narodowa Strategia Rozwoju Regionalnego*) was also approved. However, the main goals outlined in these documents were less specific as they constituted of a mixture of equity and competitiveness objectives emphasizing both the promotion of the socio-economic development of Poland and the support for the least prosperous areas (Gwiazda 2013). Several policy experts criticized the strategy because it concentrated excessively on the absorption and management of EU funds (Grosse 2006) and also because it lacked territorial focus which bore the risk of further regional polarization (Bachtler et al. 2000). However, subsequent governments have followed this direction because the prospect for receiving enormous amounts of EU financial assistance generated an implicit agreement among the political parties that in order to maximize the benefits, the national institutional and legal frameworks should align with the EU's cohesion policy (Gwiazda 2013).

In 2004, the National Development Plan replaced the Law on Regional Development. The NDP was entirely dedicated to the management of EU funds and created a strongly centralized decision-making system, which mitigated earlier concerns of the European Commission about delegating responsibility to the unprepared regional administrations. Even though every Polish voivodship qualified as an Objective 1 region, they were hardly involved in the management of funds: their role was limited to implementing a centrally managed integrated regional operational programme (Ferry 2013). In the 2007-2013 programming period the centralized system was relaxed: the National Strategic Reference Framework included 16 regional operational programmes to which 23 percent of all the Structural Funds assistance was allocated and the voivodships became the managing authorities of these ROPs. In spite of the greater involvement of the regions in regional policy, the government retained the competence of certifying payments as part of the ROPs and the majority of EU funds remained allocated through centrally managed programmes (Dąbrowski 2012). Furthermore, the Ministry of Regional Development played a dominant role in determining the content of the regional operational programmes (Ferry 2013 p. 1589). In this sense, the decentralization of the decision-making system has been partial: the central government still holds key responsibilities for allocating and managing EU funds.

Spatially more differentiated targeting did not accompany the move towards decentralized fund management because the priority of maximizing EU funds continued to prevail. This also involved the uncritical adoption of the EU's practice of designating assisted areas: all the Polish regions remained eligible for the highest level of Structural Funds support in the 2007-

2013 programming period. In line with this, the most recent Polish laws and strategies show an even greater emphasis on external convergence. The National Development Strategy for 2007-2015, the National Strategy of Regional Development for 2010-2020 and the Law on the Principles of Development Policy from 2006 have incorporated the EU's place-based approach to a great extent. Although the National Development Strategy formulates simultaneous equity and competitiveness objectives, it places emphasis on "the development role of metropolitan areas and growth centres" (Ishigaki 2010 p. 231). Similarly, the National Strategy of Regional Development stipulates that regional policy has to build on the endogenous development potential of the regions (Ferry 2013), which is advantageous for the more developed areas because of the universal eligibility of the Polish regions for EU funds. Although in the 2007-2013 programming period an additional, supra-regional operational programme provided extra resources for the least prosperous five eastern voivodships, the funds allocated for this programme represented only 3.4 percent of the total amount of Polish Structural Funds[101] thus hardly any real impact on internal convergence can be expected from it.

Because securing EU Structural Funds became the top priority for Polish regional policy, the domestic instruments were incrementally subsumed to this purpose. The change in the use of the regional contracts, which constituted the key element of Polish domestic regional policy in the 2000s, is the best example for illustrating this phenomenon. The first contract was signed with Katowice in 1995 but this practice was institutionalized and extended to other regions only in 2001. The regional contracts, which are based on the National Strategy for Regional Development, constitute agreements between the central government and the marshals of the voivodships. Each contract specifies the voivodship's development initiatives and the financial resources allocated for them from the national budget (Ferry and Mcmaster 2005; 2013a; Ishigaki 2010). The formula for fund allocation contains an equity-based element thus at least in theory the less developed regions should receive more financial assistance from the central government. However, it has been shown that the wealthy regions, such as Mazowiecki and Pomorskie received the highest support per inhabitant[102], which, according to

[101] S*ource*: the author's own calculation based on the Polish National Strategic Reference Framework for 2007-2013.

[102] The central budget for regional contracts amounted to 1.4 billion PLN (approx. 381 million of EUR) in 2001 and 1 billion PLN in 2002 and 2003 (approx. 259 and 227 million EUR, respectively). These sums are higher than the proportion of PHARE funds allocated for promoting economic and social cohesion in the same period (relevant section of the PHARE budget in 2001: 170 million EUR; 2002: 171.4 million EUR; 2003: 169.5 million EUR). *Source*: Grosse (2006) and the author's own calculation based on PHARE Annual Reports.

Grosse (2006), can be attributed to the overly centralized decision-making process of the contracts that is susceptible to political manipulation.

Another major issue with the regional contracts is the use of the funds: after EU accession, the voivodships have treated them as a resource to co-finance EU programmes. This implies that the contracts have lost their independent, domestic character and have become complementary financial instruments for the externally funded projects (Ferry 2013; Grosse 2006). The reason for this is that fiscal regionalization has not followed political and administrative decentralization which created an asymmetry between the responsibilities of the regions and their own financial resources (Ferry 2013; Ferry and Mcmaster 2005). The consequence is that voivodships heavily rely on state grants and especially the backward ones face substantial difficulties in finding sufficient funds for co-financing EU projects.[103] Given that it is in the interest of all the domestic actors to maximize the absorption of EU funds, under these circumstances domestic resources become subordinated to externally established priorities.

In his strongly critical commentary, Grosse refers to an "impaired domestic regional policy" where the system is "unnecessarily and almost exclusively focused on the absorption of the European Union funds and is dictated by EU procedures and development priorities" (2006 p. 162). Unlike in the other Visegrad countries, the Polish decision-making structure of regional policy has become decentralized to a considerable extent. Yet, the universal eligibility of the regions for EU funds produces a situation in which regional variation in the capacity to participate in development projects reinforces existing territorial disparities. This is not merely an unintentional side-effect of European integration. The Polish governments, independent from their party affiliations, have consistently preferred to maximize the amount of EU funds and for this reason they have not challenged the EU's area designation practices. As Grosse argues, "more attention is paid to the rapid allocation of EU funds rather than their appropriate compliance with local interests" (2006 p. 156). In addition, the central control of most of the domestic financial resources available for regional development purposes ensures that fund allocation may also be exposed to political influences.

[103] For instance, in 2005, the average per capita public spending in the five richest regions was 28 % higher than that in the most backward eastern voivodships (Ismeri Europa and Applica 2010).

*4.5.4 Hungary*

Hungary stands out among the Visegrad states in that it was the first country to adopt EU-compatible legislation on regional development. This might suggest that the creation of the domestic institutional structure of regional policy advanced there relatively smoothly. Instead, as everywhere else in East Central Europe, the process was politically contested and loaded with conflicts. Initially, the issue of territorial reform generated tensions, while subsequent disputes emerged about the control over the allocation and management of EU funds. The objectives and the scope of the policy were, however, much less debated because the prospect for receiving unprecedented amounts of external financial resources was the main motivating factor for the political actors to accept and adopt EU rules (Pálné Kovács et al. 2004 p. 455). Thus, like in the other Visegrad countries, the objectives of the Hungarian regional development policy have been transformed according to the place-based approach of the EU. Moreover, the regions' uniform eligibility for Structural Funds assistance has generated the same consequences as in the rest of the V4: most of the funds have concentrated in the more developed areas.

In the mid-1990s, plans on the reform of state administration and in particular about the creation of the regional level caused heated debates. However, unlike in the case of the other Visegrad countries, the contested issue was the delineation of the NUTS 2 units instead of decentralization or the creation of a strong intermediate tier of government. The NUTS 2 regions were merely regarded as statistical planning units necessary for gaining access to EU Structural Funds. This is because ever since the change of regime, arguments in favour of or against regionalization have mostly been driven by political tactics and power relations rather than ideology (Illés 2001). Regarding regional policy, parties have mostly been concerned with controlling the resources and this is the reason why, although to different extent, both the left- and right wing of the political spectrum have supported centralization (Buzogány and Korkut 2013). This has led to the instrumental use of such concepts as regionalism and partnership: they have served "as tools for the re-centralisation of the policy process and for resource distribution alongside clientele and clique interests" (Pálné Kovács et al. 2004 p. 457). The drawing of regional boundaries and the development of the decision-making structure of regional policy demonstrate this point.

Although the 1996 Law on Regional Development and Physical Planning created seven NUTS 2 regions, their boundaries remained provisional until the socialist-liberal coalition approved the National Regional Development Concept (NRDC) in 1998, which recognized them as the basic units of regional policy. The argument that the regions should be constituted of groups of counties so that they would build on existing administrative structures finally gained the support of the governing parties (Fowler 2002). Although the Law on Regional Development included temporary provisions about the regions, it allowed for the creation of regional- and county-level development councils on a voluntary, non-mandatory basis. These bodies gained the right to coordinate regional development programmes and also presided over the distribution of grants allocated for the regions. In this sense, the councils represented a step towards decentralization. However, in addition to the local and regional members, the law required the involvement of state-appointed representatives into the councils, thus it ensured central government presence in these bodies. The right-wing opposition interpreted this clause as a violation of sub-national atutonomy because they saw it as an attempt of centralization that would create ties that resemble the communist-era links between the counties and the ruling party. An opposition member of the parliament even referred to the bill as a law on soviets ("*tanácstörvény*") (Fowler 2001 p. 28).

As the political wheel of fortune turned and at the 1998 elections the right-wing opposition was voted in government, their attitude towards the regional councils also took a U-turn. In 1999, the new governing coalition introduced several changes to the Law on Regional Development. On the one hand, establishing regional development councils became mandatory. On the other hand, the role of the state delegates in the councils were strengthened because representatives of voluntary local government associations and chambers of commerce and industry lost their voting rights (Varró 2010 p. 1261). With this move, the government strengthened central control over the distribution of development funds. The socialist and liberal party now being in opposition perceived these amendments as the "nationalization" of the regional tier, which would ensure partisan control over funds, including those received from the EU (Fowler 2001). The government responded to these critics by claiming that the modifications were necessary because of the needs of EU accession (Fowler 2002).

In this period, both the right and the left-wing parties found justification for their often contradicting positions by referring to the EU's demands or to a supposedly common

European practice that should be adopted. The EU became the main reference point in the domestic debates about regional policy especially because as Fowler noted, it could be used "to support diametrically opposed policy positions" (2002 p. 35). The European Commission's changing attitude towards the role of regional self-governments in participating Structural Funds management demonstrates why the instrumental use of European principles in domestic politics was possible. In fact, the Hungarian case is probably the best one that illustrates this because the country's centralized institutional arrangements of regional policy received both praise and criticism from the Commission in a relatively short period of time (Hughes et al. 2004).

In the 1997 country opinion, Hungary was lauded as the first state in Central Europe that introduced a regional policy framework which was in close compliance with the EU's cohesion policy. The document concluded that "Hungary's administrative capacity to manage integrated regional development programmes seems satisfactory".[104] Surprisingly, a year later the progress report criticized the country's weak institutional and administrative capacity in regional development, by which the Commission made an implicit reference to the lack of administrative powers of the NUTS 2 regions (Hughes et al. 2004). The report required that the problems „be addressed before Hungary is ready to participate in the EU structural policy".[105] However, the shift in the Commission's viewpoint became evident in the 2000 progress report because the document expressed that "the decision making framework on the regional level raises important concerns in respect of its ability for efficient decision making and respect for programming principles".[106] To put it differently, because of their weak administrative capacities, the Commission was concerned about the involvement of sub-national authorities in the management of EU funds. This gave an external justification for the government to reinforce the centralized system.

Although after 1998 the main competence for regional policy belonged to the Ministry for Agriculture and Regional Development, the field remained rather uncoordinated and was dominated by sectoral interests because such powerful ministries like the Ministry of Interior,

[104] Commission Opinion on Hungary's Application for Membership of the European Union. DOC/97/13. Brussels, 15th July 1997. (Available at: http://ec.europa.eu/enlargement/archives/pdf/dwn/opinions/hungary/hu-op_en.pdf)
[105] Regular Report from the Commission on Hungary's Progress Towards Accession. Brussels, 1998. p. 33. (Available at: http://ec.europa.eu/enlargement/archives/pdf/key_documents/1998/hungary_en.pdf)
[106] Regular Report from the Commission on Hungary's Progress Towards Accession. Brussels, 8th November 2000. p. 63. (Available at: http://ec.europa.eu/enlargement/archives/pdf/key_documents/2000/hu_en.pdf)

the Ministry of Finance and the Ministry of Economic Affairs stayed responsible for certain regional development issues including regional fiscal regulations, labour force programmes, enterprise zones and settlement management (Downes 2000). This structure risked the quick and efficient absorption of EU funds especially if regional partners would also participate in the process even though at least in theory the EU's partnership principle would have required their involvement. In order to strengthen the system's efficiency, the socialist-liberal coalition, which returned to power after the 2002 elections, established the National Development Office within the Prime Minister's Office. The new body was charged with the co-ordination and implementation of Structural and Cohesion Funds assistance thus the responsibility for the EU programmes laid with a central organization and regional actors had limited influence on the decisions (Pálné Kovács et al. 2004). In spite of this, in the 2002 progress report, the Commission expressed its satisfaction with this institutional arrangement because the document found that "with the Government decisions taken in June 2002, Hungary has established a more efficient institutional framework for programming and implementation of Structural and Cohesion Funds".[107]

In the subsequent years, the central control over the allocation of EU funds remained in place even though regional actors were granted greater involvement in the decision-making. In 2004-2006, during the first programming period after EU accession, the role of the Regional Development Councils was marginal, because they were hardly involved in the single, centrally managed integrated regional operational programme. However, the significance of the councils increased in the 2007-2013 budget cycle because they were involved in the drafting of the individual regional operational programmes of the seven NUTS 2 regions and their dedicated development agencies became responsible for the implementation of these OPs. In spite of this, the socialist-liberal coalition, which remained in power after the 2006 parliamentary elections, reinforced the centralized character of the decision-making structure.

In 2006, the government upgraded the National Development Office to a National Development Agency and assigned it with the responsibility of managing all the sectoral operational programmes of the new, 2007-2013 programming period. Previously, the line ministries were in charge of the sectoral OPs, but this arrangement triggered conflicts within the ministries between the traditional bureaucrats and the managers responsible for EU

[107] Regular Report on Hungary's Progress Towards Accession. Brussels, 9th October 2002, p. 103. (Available at http://ec.europa.eu/enlargement/archives/pdf/key_documents/2002/hu_en.pdf).

projects. Although the government solved the issue by centralizing the management of all the sectoral programmes into a single organization, at the same time this has greatly exposed regional policy to political influences (Buzogány and Korkut 2013). While in theory the National Development Agency possessed the key authority for regional development policy, it was supervised by a government commissioner and the real decision-making power rested with the Development Policy Steering Committee (*Fejlesztéspolitikai Irányító Testület*), which was headed by the Prime Minister. This body with exclusive membership of influential politicians from the governing parties exercised the ultimate control over development funds (Korkut 2008), which also ensured that regional actors remained weak partners in the policy process.

The institutional reshuffling after the 2010 elections clearly demonstrate that regardless of the ideological positions, the dominant concern of the Hungarian political parties has been to take control of development funds. This is why centralized fund allocation has characterized Hungarian regional policy and this is also the reason why the all-time opposition accuses the government in power of distributing financial resources according to partisan interests. As Pálné Kovács and her co-authors argue, "it is a political tradition in Hungary to use development funds to create a loyal group of voters for the party and providing financial support for party cronies" (2004 p. 306).

The 2010 elections brought a landslide victory for the centre-right Fidesz, which gained constitutional majority in the parliament. The new government subordinated the National Development Agency to the newly established Ministry of National Development and replaced the agency's management and even the administrators at the desk level were affected by the politically motivated changes in staff. Following the reorganization, local and regional actors were even less involved in the decision-making structure.[108] The European Commission raised concerns about the restructuring arguing that it "may affect the absorption capacity of the Agency" (Buzogány and Korkut 2013 pp. 1572–1573). It seems that the Commission was

[108] The Fidesz government also introduced a territorial reform in 2012. The reform abolished the Regional Development Councils and delegated their responsibilities to the self-elected county assemblies at the NUTS 3 level. As a consequence, the regions no longer have any roles in shaping regional policy, they remain statistical units. At the same time, the county level has gained more competences and became the only intermediate partner of the central government. It is also important to note that because of the sweeping Fidesz victory at the 2010 local government elections, all the 19 county assemblies and that of Budapest, the capital city, are dominated by the right-wing party. In short, the elimination of the regional councils, which consisted of non-partisan civil member as well, has further strengthened the party's control over development funds. The local government elections in autumn 2014 left the local and regional dominance of Fidesz virtually unaffected.

more concerned with the administrative capacity of the bureaucracy than with the application of the partnership principle.

The above evidence suggests that in Hungary, like in the other V4 countries, domestic politics rather than the EU's influence has shaped territorial reforms and the decision-making structure of regional policy. However, this was not the case with the policy objectives. The 1996 Law on Regional Development incorporated both equity and competitiveness elements (Downes 2000), which appeared in the 1998 National Spatial Development Concept as well. These documents contained contradictory and rather unrealistic objectives in that they aimed to satisfy too many needs simultaneously (Bachtler and Downes 1999). The pre-accession financial assistance of the EU mostly promoted the country's external convergence, while the more limited domestic resources were dedicated to reducing internal disparities. The legislators tried to combine the two policy streams into a single legal framework but this has created parallelism between them causing inefficiency in the operation of planning activities (Ishigaki 2010 p. 150). As the magnitude of the EU's financial assistance increased, the policy objectives and the identification of the main target areas were adapted to the EU's practice (Horváth 2000).

Every Hungarian NUTS 2 region qualified as an Objective 1 unit for the 2004-2006 programming period thus they were eligible for the highest level of support from the Structural Funds. The 2007-2013 budget cycle did not bring dramatic changes to the scope of assisted areas: only Central Transdanubia (*Közép-Magyarország*), including the capital city of Budapest and Pest county, was dropped from the group of convergence regions, which became the new label for the former Objective 1 category. Yet, Central Transdanubia remained eligible for EU funds under the regional competitiveness and employment objective, which replaced the former categories of Objective 2 and 3. This implies that since joining the EU, the whole territory of Hungary has been the target of EU funds. In short, universal targeting has become the rule which is in sharp contrast with the practice of the 1990s when only 25-30 percent of the population lived in assisted areas.

The framework of regional policy also reflects the shift in spatial targeting. Based on a parliamentary decree from 1998, the parliament was legally obliged to revise the National Spatial Development Concept in 2005. The new concept marked a profound change in the policy objectives in that it explicitly placed the emphasis on promoting regional

competitiveness at the expense of equalization although the reduction of territorial disparities still featured in the document as an important policy goal (Salamin et al. 2005). Nevertheless, the priorities focused on the development of the urban network and the strengthening of growth poles to increase regional- and country-level competitiveness (Ishigaki 2010). In this sense, the new concept was inspired by both the place-based approach and growth pole theory.

Initially, the designation of development poles was driven by the idea to counterbalance the role of Budapest in the country's settlement structure. As Varró (2010) documented it, the experts, who were involved in the drafting of the concept, suggested five regional centres that could potentially serve as growth poles and counterweight the dominance of the capital city. However, expecting that the growth pole status would bring earmarked EU funds, the representatives of Central Transdanubia and Budapest began lobbying the government to include them in the document. Given the considerable lobbying power and political significance of the capital city, state officials withdrew the original plan and in the end five pole cities (Debrecen, Győr, Miskolc, Pécs, Szeged), two development co-centres (Székesfehérvár and Veszprém) and Budapest as a priority pole received funding to elaborate their development strategies. Half of these cities (Budapest, Győr, Székesfehérvár and Veszprém) are located in the most developed areas of Hungary, which shows that the program did not prioritize the backward regions. The growth-poles received EU funds through the sectoral and regional operational programmes, which is indicative that the concentration principle of the EU's cohesion policy was not fulfilled in practice.

Besides the EU-inspired, profound shift in the policy objectives, domestic resources for regional development have also been gradually redirected to co-finance EU projects. Also in this respect, Hungary shows great similarity to the other Visegrad states. In the 1990s, Hungary had the most sophisticated regional policy among the V4 and committed the highest share of GDP for regional development purposes. A relatively complex structure of domestic funds emerged over the years, among which the most important ones were the Targeted Budgetary Allocation for Regional Development (after 2003 the Territorial and Regional Development Allocation), the Targeted Decentralized Assistance, and the Spatial Equalization Financial Assistance. However, as the inflow of EU resources increased, the budget of the domestic funds decreased. In 2004, when Hungary joined the EU, the government allocated 26 billion HUF (approximately 103 million EUR in 2004 prices) for supporting domestic

regional development programmes. By 2007 the budget shrank to half of this sum and in 2009 only 5 billion HUF (18 million EUR in 2009 prices) were dedicated for this purpose.[109] The global economic and financial crisis, which heavily affected Hungary, is also responsible for the shrinking domestic resources but also the growing need to co-finance EU projects. After 2010 only the Targeted Budgetary Allocation for Regional Development remained in the state budget with funds ranging between 0.9 and 1.5 billion HUF (3 to 5 million EUR), annually. It seems that the already cited argument of Grosse (2006) about the impaired domestic regional policies is relevant in the Hungarian context, too.

### 4.6 Conclusion

Regional development policies in the Visegrad countries have undergone several major shifts since the early 1990s. The European Union has played a considerable role in triggering those changes but the extent of its influence was not as wide-ranging as many scholars expected before enlargement. In fact, the EU's domestic impact in this policy field has been limited at best and controversial at worst. On the one hand, the EU's role has been limited because even though the massive financial transfers lifted the profile of regional policy and also substantially contributed to the shift in the policy objectives, the EU neither affected the domestic decision-making structures nor the role of the sub-national actors in managing the funds. On the other hand, the EU's impact has been controversial because the institutional developments in the V4 seem to contradict the EU's main regional policy principles; what is more, the EU has actively contributed to this outcome, with which it has undermined its own agenda.

In line with the partnership principle, the EU, more precisely the European Commission, initially promoted the active participation of regional administrations in the management and implementation of EU funds. However, after the accession negotiations had commenced, the Commission became increasingly concerned with the weak administrative preparedness of the regional level and began to emphasize the efficient use of funds instead of the application of the partnership principle. In this vein, the Commission suggested that at least in the first phase after enlargement, Structural Funds should be centrally managed. In short, it encouraged central governments to reinforce the already centralized domestic decision-making structures

[109] *Source*: the author's own calculation based on the annual budget laws of Hungary.

at the expense of regional involvement. Even though in the 2007-2013 programming cycle the regional actors gained greater access to the management of funds, the decision-making systems in the V4 have essentially remained centralized. Regardless of their ideological positions, maintaining central control over the funds was also appealing for the political elites because centralization ensured that partisan interests such as building clientele and rewarding loyal voters would play a role in the distribution of financial resources.

The V4 governments were also interested in maximizing the amount of financial transfers from the EU. This was possible by the direct application of the EU's criteria for designating the assisted areas. As a consequence, every V4 region became eligible for Structural Funds, which also involved a fundamental shift in the objectives of the regional policy. While in the 1990s maximum one third of the population lived in areas that were targeted by regional development funds, this share jumped to one hundred percent after EU accession. Universal targeting is beneficial for those regions which possess greater fund absorption capacity and these are usually the ones that are also more prosperous. This also implies that the earlier goal of equalizing regional developmental differences has been replaced by the promotion of every region, in particular the growth poles, which is supposed to enhance external convergence at the expense of internal convergence. Because of the need to co-finance EU projects, domestic financial resources have also been subsumed to the EU's cohesion policy. By now, the vast majority of developmental projects in the V4 are financed from EU funds.

All things considered, neither the concentration nor the partnership and the additionality principles have been applied in the V4 in their original sense. EU funds are not concentrated in the most backward areas, the involvement of regional administrations in the management and implementation of the development programmes is limited, and domestic regional policies have become entirely subordinated to the EU's cohesion policy. This demonstrates both the limits and the controversial nature of regulatory convergence. However, it is not the implementation of the regional policy principles which raises concerns but the territorial consequences of these institutional arrangements.

The shift from the equity objective to competitiveness would not be problematic if there were other equalizing mechanisms at work. However, this is not the case in the Visegrad states. The previous chapters have demonstrated that the fierce competition for foreign investments led to the formulation of such investment promotion policies that are mostly beneficial for the

more developed regions. This suggests that in addition to the spatially divisive forces of market economy, domestic policies also contribute to growing regional disparities. Both investment promotion and, somewhat paradoxically, the regional development policies of the V4 reinforce polarizing tendencies, which bears the risk of generating social tensions and unrest, unless trickle down effects from the development poles would materialize in the near future. By analyzing the regional distribution of EU funds in the Visegrad states, the next chapter brings further empirical evidence for the above arguments.

# CHAPTER 5

## SUPPORTING THE RICH OR THE POLITICALLY LOYAL: THE REGIONAL DISTRIBUTION OF EUROPEAN UNION STRUCTURAL FUNDS IN THE VISEGRAD COUNTRIES

### 5.1 Introduction

Since the early 2000s, transfers from the European Union have become the most important resources for regional development programmes in the Visegrad countries. During the pre-accession phase, PHARE grants represented the main channel of external assistance, while after EU accession the much greater sums of the Structural Funds have become the primary financial supplies. The dominance of EU grants in regional policy spending has also triggered regulatory convergence in these policies. The previous chapter demonstrated that this has been most substantial in the case of policy objectives and the designation of assisted areas whereas the institutional setup of regional policy has been shaped primarily by domestic influences. Given these circumstances, the following question emerges: what pattern does the regional distribution of EU funds show or, in other words, which regions benefited the most from those grants? To put it simply, the central concern of this chapter is to explore where the EU money went and why.

Several contradicting expectations about the direction of the regional transfers can be formulated based on the findings of the previous chapter. Even by taking only the principles of the EU's cohesion policy into account one may pose different assumptions. On the one hand, the concentration principle stipulates that the funds should be spent in the most backward regions of the member states. If this principle would fully prevail, then the least prosperous areas would be the main beneficiaries of the grants. On the other hand, the EU also specified the additionality principle, which requires co-financing of regional projects. This is challenging for the laggards because compared to the more affluent regions, they face considerable difficulties in finding the necessary own resources for the development projects: their ability to pay does not match their need for support (Martin 1998). From this perspective, the richer regions are in a better position to secure EU funds.

A similarly confusing picture appears from the domestic policy objectives. Even in their fragmented and incoherent forms, the regional policies of the Visegrad states in the 1990s were pursuing the equity objective thus they were aiming at lowering internal regional disparities. This was advantageous for the backward areas because they received the bulk of the otherwise very limited amounts of financial assistance. However, the European Commission's concerns about efficient spending and the adoption of the place-based approach have triggered a gradual shift in domestic regional policies which began to place more emphasis on competitiveness and external convergence. This also involved increased support for the growth-poles which, at the same time, were the more developed areas. Consequently, current regional policies of the V4 bear an inherent contradiction: they intend to simultaneously serve both internal and external convergence. This confusing situation implies that development funds may not flow into any specific directions: they may not concentrate either in the more prosperous or the lagging behind regions.

However, the designation of assisted areas may tilt the balance towards the leading regions. While before enlargement domestic regional policies targeted the backward areas, the arrival of the Structural Funds has replaced this practice with universal targeting which means that the whole territory of the Visegrad states has become eligible for financial assistance. This system favours the more developed regions because compared to the laggards, they have superior fund absorption capacity thus they stand a much higher chance for success in the competition for grants.

In spite of this, an important intervening factor may modify the picture. The management and implementation of Structural Funds is to a great extent centralized in the V4, which implies that central governments enjoy a notable degree of autonomy in fund allocation. In these circumstances, political preferences and lobbying may also influence the flow of funds. EU grants could potentially serve the interests of central governments who may wish to reward their loyal voters or "punish" the territorial strongholds of the rival parties. An alternative option would be to provide additional grants for those areas where the government is less popular in order to gain votes. These hypothetical examples suggest that the political logic of fund allocation may either reinforce or weaken the economic logic and this is the reason why the analysis of the distribution of EU grants has to account for both economic and political factors.

The chapter proceeds with a review of the literature on Structural Funds allocation and its anticipated effects on regional disparities. Next follows the analysis of the post-accession regional distribution of EU funds, which is divided into two parts. First, the differences and similarities between the two concluded programming periods (2004-2006 and 2007-2013) will be highlighted. Then, in order to identify both the economic and the political factors that may influence the distribution of grants, the Hungarian and the Polish cases will be analyzed based on comprehensive, settlement-level databases for the 2007-2013 programming cycle.

## 5.2 The determinants and the estimated effects of the spatial distribution of Structural Funds

The vast majority of scholarly works that examine the effects of the Structural Funds focus on the old EU member states. This is not surprising because given their relatively recent involvement in these programmes, data on the Eastern members have not been available so far. The studies can be classified into four distinct, yet related groups. The first (and possibly the largest) stream of the literature, which the previous chapter has already discussed, explores the consequences of the funds on the domestic territorial administrative systems. Another line of inquiry estimates the effect of the funds on national and regional growth trends and analyzes their implications for regional disparities. Closely related to the previous group, another category of contributions examines the determinants of country- and regional-level absorption capacities and their consequences on economic growth. Finally, a rather limited number of works intend to explain the national and regional patterns of fund allocation by considering both economic and political factors.



In spite of the political and economic significance of the EU's cohesion policy, surprisingly few works have analyzed the effect of the funds on growth. In a recent article, Le Gallo and her co-authors (2011) enumerated approximately 20 published and unpublished works that offered econometric estimates of the economic consequences of the Structural Funds. Even this limited number of works reached very different conclusions: some researchers found that the funds had an unconditional positive impact on growth, while others estimated a positive impact that depended on certain conditions, whereas the rest of the studies detected negative or no impact at all. Even though the results differ to a great extent, those works that applied

the most sophisticated spatial econometric estimation techniques seem to agree that EU grants have a differential economic impact both at the national and the regional level.

For instance, Capellen and his co-authors (2003) concluded that EU Structural Funds had a significant positive impact on the growth performance of European regions but this effect was much stronger in more developed environments: they found that "support is least efficient where it is most needed" (2003 p. 640). Le Gallo and her colleagues (2011) also found that the estimated effects of EU funds differ by regions. In a similar vein, Kyriacou and Roca-Sagalés (2012) examined how the Structural Funds spent in the 2000-2006 period influenced within-country regional disparities. They found an overall positive impact, which means that the funds tended to reduce territorial inequalities. However, the authors also established that as the intensity of transfers increased and exceeded approximately 1.6 percent of the member states' GDP, the positive effect reversed and EU grants raised regional differences. This was the case in those four countries (Greece, Ireland, Spain and Portugal) that received the highest level of EU support compared to their national output. The authors concluded that EU regional assistance in the new Eastern European member states, which were to become the greatest beneficiaries of the cohesion policy, could possibly make a negative contribution to regional disparities.

The above findings about the negative relationship between regional growth and the amount of EU grants may be related to the absorption capacity of a country or a region. The results of Ederveen and his colleagues (2006) suggest that absorption capacity may not only depend on economic but also on institutional factors. The authors showed that while the Structural Funds did not explain growth differentials among EU member states, they proved effective only in those countries that had the "right" institutions. To put it differently, funds may contribute to regional growth only in an adequate institutional environment. While Ederveen and his co-authors performed a country-level analysis, a recent comparative case study of two relatively poor Italian regions suggest that the institutional argument also applies to the regional level. In her article, Milio (2007) reported that the greater administrative capacity and political stability of Basilicata significantly enhanced the region's fund absorption capacity compared to Sicily, which was characterized by a rigid, non-transparent bureaucracy and political instability.

The institutional quality of the recipients as a determinant of fund effectiveness becomes especially important if one considers the fact that those countries are the most in need of development support which also have relatively weak institutions. This was indeed the case in Greece, Ireland, Spain and Portugal, which were the greatest beneficiaries of the cohesion policy in 2000-2006 but their governance indicators remained well below the EU-15 average in this period.[110] In other words, the massive flow of EU grants entered domestic institutional settings that showed inferior performance compared to EU standards. This point is especially relevant for the Central and Eastern European countries, whose governance indicators have been persistently low relative to Western European levels.[111]

It follows from the above considerations that the new Eastern European member states would have weak fund absorption capacity both because of their limited domestic resources for co-financing and the rather low performance of their institutions. Surprisingly, these expectations have not been met. Both a recent qualitative (Bachtler et al. 2014) and a quantitative (Tosun 2014) analysis showed that the fund absorption rates of the new members were much higher than it had been anticipated. In fact, the Eastern European members achieved higher absorption rates than the old member states.[112] On the one hand, Bacthler and his co-authors attribute this outcome to the centralized approaches to fund management and implementation and, on the other hand, to Europeanization effects in a sense that the EU may have contributed to the improved performance of the national administrations. Tosun treats the superior absorption rate of the new members more suspiciously and suggests that the rapid absorption of the allocated funds could have had a detrimental effect on the quality of the projects. He also refers to the findings of Cartwright and Bátory (2012) who showed that there was a considerable political pressure on the Central and Eastern European governments to maximize

[110] *Source*: the author's own calculation based on the Worldwide Governance Indicators. The average scores of three institutional dimensions (government effectiveness, regulatory quality and control of corruption) were calculated for the EU-15 and separately for each of the four countries between 2000 and 2006. Except for Ireland in 2000, 2005 and 2006, the combined annual average scores for the EU-15 exceeded those of Greece, Ireland, Spain and Portugal.

[111] The combined average scores of government effectiveness, regulatory quality and control of corruption for each Visegrad state have stayed well below the EU-15 average ever since the data are available (since 1996). *Source*: the author's own calculation, Worldwide Governance Indicators.

[112] The average absorption rate of funds allocated from the European Regional Development Fund (ERDF) for the 2000-2006 programming period stood at 91.03 % in the old EU members at the end of 2008, while in the new member states the average rate reached 94.37 %, which is a statistically significant difference between the two groups (Tosun 2014 p. 373). In the Visegrad states, the absorption rates of all the EU funds (including the ERDF, the European Social Fund and the European Agricultural Guidance and Guarantee Fund) were the following: Czech Republic 90.64 %, Hungary 94.11 %, Poland 93.05 % and Slovakia 93.31 % (Bachtler et al. 2014 p. 743). The maximum amount payable by the European Commission before the formal closure of the programmes is 95 %, which constitutes the upper limit of fund absorption.

the absorption of Structural Funds. This finding is fully consistent with the argument developed in the previous chapter which suggested that after enlargement both domestic and external political interests promoted the adoption of centralized fund-management systems in the Visegrad states, which at the same time placed the emphasis on efficiency instead of equity.

The above discussion has revealed that both the growth effects of EU grants and the absorption capacity of the recipients depend on economic, institutional and political factors. The same also holds for fund allocation, which can be considered the first element in the sequence (allocation → absorption → effect) that determines whether the EU's cohesion policy reinforces or rather alleviates regional disparities in the member states. In a strict sense, allocation and absorption are not entirely separate from each other because they jointly determine the amount of funds that the targeted territorial units may secure. To demonstrate this with a hypothetical example, let us consider the following situation: a relatively prosperous region may have high absorption capacity but because of political or other influences, the central government (or the managing authority of the funds) privileges project applications submitted from a less developed region that has much weaker absorptive potentials. In this situation, the region with superior qualities will secure less and the one with poor attributes will obtain more development funds than they would be able to without the intervention of the government. It goes without saying that the opposite case when the more developed region receives preferential treatment may also occur. This example highlights why both the factors that are responsible for fund allocation and absorption have to be analyzed simultaneously in order to identify those mechanisms that determine the territorial distribution of EU funds.

The growing yet still quite limited literature on fund allocation pays the most attention to institutional and political circumstances. These works thus inform about the non-economic factors influencing the distribution of Structural Funds. Bouvet and Dall'Erba (2010) argue that earlier studies disregarded those political processes that shape the allocation of EU grants. In their analysis, which focused on twelve member states from 1989 to 1999, the authors found that a political alignment between a region's leadership and the central government of the country was positively related to the amount of funds allocated for the region. At the same time, they also showed that national governments were inclined to use EU funds to secure votes in those regions where their position was weaker (2010 p. 524). In this respect, the

analysis brought some evidence for the claim that central governments may engage in vote-seeking when deciding about the domestic allocation of EU transfers.

However, another article, which concentrated on the old member states in the 2000-2006 programming period, reached somewhat different conclusions. Dellmuth (2011) found that the most important determinant of regional transfers is the recipient region's economic affluence. While poorer regions received more funds, this effect was moderated by the past records of fund absorption in constitutionally weak regions. The author explains this by arguing that the Commission is concerned with the efficient use of funds therefore it is in its interest if constitutionally strong regions, which have greater autonomy, high lobbying power and presumably better absorption capacity, receive more funds regardless of their past performance in using the grants. In contrast, for the constitutionally weak regions the Commission imposes the condition of having a good record of absorption in previous programming cycles. At the same time, Dellmuth found only mixed evidence for the vote-seeking behaviour of central governments. In particular, she did not detect a significant relationship between a region's political alignment with the national government and the amount of EU grants. However, a more recent analysis (Dellmuth and Stoffel 2012) on Germany revealed that vote seeking was present at the sub-state level because the governments of the German federal states tended to reward those districts with EU funds where their support was already high.

Although in their article Bodenstein and Kemmerling (2011) examined the same period as Dellmuth (2011), they reached different conclusions. The authors' analytical approach consisted of two-steps. First, they aimed to identify those factors that determined whether a region became eligible for Structural Funds or not. In the second stage they inquired about how electoral competition and the level of territorial decentralization (federalism vs. unitary state) influenced the amount of funds allocated for the eligible regions. The authors also distinguished between Objective 1 and 2 regions. Regarding eligibility, their results suggested that the selection for Objective 1 funding depended on regional per capita income, while unemployment rate was the key determinant for becoming an Objective 2 region. With respect to the amount of funds received, the authors found that in the case of Objective 1 units, federalist regions were able to secure more grants. Bodenstein and Kemmerling explain this with the greater lobbying power of these regions compared to the ones in states with centralized territorial systems. In this respect, their results contradict that of Dellmuth who

reported that the constitutional status mattered only in the case of regions with few powers, which received EU grants conditional on their past absorption performance. Finally, the authors detected that the tightness of political competition in an Objective 2 region was positively associated with the amount of funds but this relationship was not significant in Objective 1 regions. In short, they brought some, although limited evidence for the role of vote-seeking in fund allocation.

In another publication, Kemmerling and Bodenstein (2006) demonstrated that political factors indeed affected the distribution of EU grants. By employing data on the financial budgetary planning for the 2000-2006 period, the authors investigated whether regional Structural Funds per capita depended on regional partisan cleavages. Their results showed that after controlling for other relevant factors, those regions received more EU grants where left-wing parties were stronger or where Eurosceptic parties proved more popular. According to the authors, leftist parties have ideological preference for regional policy thus they may engage in active lobbying for Structural Funds and this is the reason why those regions where they dominate secure more financial assistance. At the same time, as Kemmerling and Bodenstein argue, if there is a strong regional presence of a pro vs. anti-EU cleavage, then allocating more funds for the region at stake may compensate those who are opposed to EU integration. In short, EU transfers may be used to appease anti-EU voters.

The above empirical results offer only limited guidance for identifying the determinants of the regional distribution of Structural Funds in the new member states in general and in the Visegrad states in particular. First, these countries are all unitary states where the decision-making power is concentrated at the level of the central governments.[113] In this sense, the federalist hypotheses cannot be tested in the V4 because even in Poland, where decentralization has advanced the furthest, the autonomy of the regional administrations are bounded to a great extent. Furthermore, all the Visegrad regions have been eligible for Structural Funds, thus any inquiry about the determinants of fund eligibility is meaningless in their case. What is more, except for Prague, the Bratislavsky district and Central Hungary (only in 2007-2013), every V4 region qualified as an Objective 1 (2004-2006) or as a

[113] For instance, in their seminal article on the relationship between political institutions and corruption, Gerring and Thacker (2004) classified each Visegrad country into one of the two most unitary country groups. Similarly, the Regional Authority Index (RAI), which considers eight different institutional dimensions of the national polity and was developed by Hooghe, Marks and Schakel (2008), also confirms the unitary character of these countries. In fact, among the V4 Hungary, a clearly unitary state received the highest RAI score (10 out of the maximum of 24) followed by Poland (8), the Czech Republic (7) and Slovakia (6).

convergence area (2007-2013) thus it also makes little sense to distinguish among them according to the type of eligible categories. Lastly, because the V4 has only very recently completed its first full EU regional policy cycle, there is no prior experience about the absorption performance of the regions. In other words, most of the findings of the literature on the determinants of the regional distribution of Structural Funds can be applied with great caution to the case of the Visegrad states.

The lack of empirical data on the use of EU funds in the new member states is also the reason why this topic has been an almost entirely unexplored area so far. To date, only a single publication attempted to identify the determinants of Structural Funds spending in Eastern Europe. Taking the level of municipalities as the unit of analysis, Bloom and Petrova (2013) compared the distribution of EU funds in Latvia and Bulgaria. On the one hand, the authors found that in both countries the wealthier localities were able to secure higher per capita EU grants, which contradicts the principle of equity. On the other hand, their results also revealed that both in Latvia and Bulgaria the vote share that the ruling parties received in a locality was positively associated with the amount of EU funds spent there. This suggests that in both countries the central governments used the Structural Funds to reward their loyal voters. The authors claim that this outcome is the joint consequence of the centralized management of the funds and the universal eligibility of the regions: in those circumstances politicians may have greater influence on project selection.

The above cited study of Bloom and Petrova (2013) brings empirical support for the expectations posed by Boldrin and Canova (2003) who disputed the view that the Structural Funds would reduce regional disparities in the new member states. They anticipated that the financial transfers would trigger several negative effects (such as rent-seeking) which would work against the equalization of development gaps. Jacoby (2004) shared similar concerns because "given the newness of regional policy instruments in CEE states, there is some danger that the sums spent by the EU will cause economic disproportions if not managed thoughtfully" (2004 p. 80). The analysis of the regional distribution of Structural Funds in the following section reveals the extent to which these concerns have materialized in the Visegrad states.

## 5.3 The distribution of Structural Funds among the NUTS 3 regions of the Visegrad countries

Based on the evidence cited above, three different expectations can be formulated regarding the regional distribution of EU funds in the V4. First, the economic logic of fund distribution, which is based on the emphasis on the competitiveness objective (which involves the promotion of external convergence), the co-financing requirements (which pose financial challenges for backward areas), and the system of universal fund eligibility (which does not differentiate among the richer and the poorer regions) may lead to the concentration of EU grants in the more prosperous areas. Conversely, the pursuit of the equity objective and the application of the concentration principle imply that the lagging behind regions would be able to secure more financial support. Finally, political preferences and considerations, which are more salient in centralized systems, may favour either the advanced or the deprived regions. In this sense, the political logic can be regarded as an intervening factor that may either strengthen or weaken the economic logic of fund distribution. These factors draw funds in different directions which suggest that in these circumstances the most backward regions may not become the top beneficiaries of Structural Funds. To put it differently, EU grants may not reduce territorial inequalities in the Visegrad countries.

The Structural Funds have been supporting development programmes in the V4 since they joined the European Union in 2004. The first programming period lasted less than three years (2004-2006) because enlargement took place in the middle of the EU's 2000-2006 budgetary cycle. This is the reason why the new members began their first full, seven-year policy cycle only when a new budget period commenced in 2007. In 2004-2006, EU grants funded five operational programmes (OP) in the Czech Republic and in Hungary, six in Poland and four in Slovakia.[114] The OPs closely resembled each other: they financed infrastructural projects, human resources and enterprise development projects and agricultural, rural and regional development projects. In the Czech Republic and Slovakia, a Single Programming Document

[114] Excluding the Technical Assistance Operational Programmes which provide funds for the administration and management of the other programmes. In the V4, the following OPs were financed in 2004-2006. Czech Republic: Industry and Enterpise; Infrastructure; Human Resources Development; Rural Development and Multifunctional Agriculture; Joint Regional OP. Hungary: Economic Competitiveness; Agricultural and Rural Development; Human Resources Development; Environmental Protection and Infrastructure; Joint Regional Development OP. Poland: Improvement of the Competitiveness of Enterprises; Human Resources Development; Transport; Restructuring and Modernization of the Food Sector and Rural Development; Fisheries and Fish Processing; Integrated Regional OP. Slovakia: Basic Infrastructures; Human Resources; Industry and Services; Agriculture and Rural Development. *Source*: Community Support Framework documents of the Czech Republic, Hungary, Poland and Slovakia. Available: ec.europa.eu/regional_policy/archive/funds/prord/pro2000_en.htm.

outlined the priorities for Prague and the Bratislavsky region, which received support as Objective 2 units. In the 2007-2013 programming period the regional dimension gained greater significance through the launch of separate regional operational programmes for the NUTS 2 territories. Because of the regional OPs, the number of operational programmes jumped to fourteen in the Czech Republic and in Hungary and twenty in Poland. Although Slovakia adopted an integrated regional operational programme, the number of OPs (10) also increased there.[115]

Figure 5.1 allows for a comparison of the regional distribution of Structural Funds in the first and in the second programming period as a function of (logarithmic) regional GDP per capita. In both cases the contracted funds are indicated which may slightly but not substantially differ from the final payments. Although the NUTS 2 regions are the basic targets of EU grants, it is possible to disaggregate the funds to lower territorial units, such as the NUTS 3 regions, which are displayed in Figure 5.1. It is important to note that the indicator of Structural Funds expenses refers to the total EU financial support spent on projects that were realized within the corresponding regions. In other words, the figures represent the total per capita amount of EU grants that were secured for projects carried out within the borders of each NUTS 3 region. Data for Poland in 2004-2006 is available for the former territorial system which consisted of 45 NUTS 3 units, whereas for the 2007-2013 programming cycle the figures have been calculated according to the current Polish system of 66 NUTS 3 regions. This is the reason why the number of Polish regions differs in the two periods.

Assuming that more EU spending generates higher economic growth, EU funds should concentrate in the backward areas to narrow the gap between the most and the least developed regions. In short, regions with lower GDP per capita should receive more support than the prosperous ones. However, Figure 5.1 does not reveal a negative relationship between the level of development and the per capita amount of secured funds. In fact, the two indicators do not seem to be related to each other. The correlation coefficient of the two variables shows

[115] Excluding the Technical Assistance Operational Programmes. The following OPs were financed in the 2007-2013 period. Czech Republic: Enterprise and Innovations; Research and Development for Innovations; Environment; Transport; Integrated OP; Human Resources and Employment; Education for Competitiveness; and seven regional OPs. Hungary: Social Renewal; State Reform; Electronic Public Administration; Economic Competitiveness; Environment and Energy; Transport; Social Infrastructure; and 7 regional OPs. Poland: Innovative Economy; Human Capital; Infrastructure and Environment; Development of Eastern Poland; and 16 regional OPs. Slovakia: Information Society; Environment; Transport; Health; Competitiveness; Research and Development; Education; Employment and Social Inclusion; Bratislava Region; Regional Operational Programme. *Source*: National Strategic Reference Frameworks for 2007-2013.

a very weak negative but statistically not significant effect in 2004-2006 ($r$ = -.084, p > .1, N = 87) and a positive, weakly significant relationship in 2007-2013 ($r$ = .166, p < .1, N = 108).[116] This brings further empirical support for the claim that the regional distribution of Structural Funds did not serve the equity objective thus the concentration principle did not prevail in the Visegrad countries.

At the same time, the figures do not suggest that the competitiveness objective and the promotion of external convergence received absolute priority either, although there is a clear positive association between the level of development and per capita EU funds in the 2007-2013 programming cycle. This reflects the shift in the regional policies towards the place-based approach which puts greater emphasis on providing support for the growth poles. In any case, the lack of a distinct negative or positive relationship between EU funds and regional GDP per capita is an empirical confirmation of the inherent conflict that characterizes the regional policies: the simultaneous pursuit of internal and external convergence leads to a high degree of spatial incoherence in the distribution of funds, which serves anything but the reduction of territorial disparities.

A closer examination of the charts reveals further details. In 2004-2006, the average per capita funds spent in a region (123.5 EUR) was much lower than in the next programming period (1600.4 EUR). This is partly the consequence of the longer duration of the second cycle but the higher average expenses are also caused by the fact that on an annual basis the European Union allocated more funds to the Visegrad countries in 2007-2013 than in 2004-2006.[117] The second programming period has therefore provided the most generous external support for development projects in the V4 since the change of regime.

The cross-regional variation in GDP and Structural Funds per capita reveals high development and spending gaps. The former indicates the countries' level of internal regional disparities, while the latter is a sign of the strongly unequal distribution of the grants. In both periods, the gap between the most and the least successful regions in terms of securing funds

[116] If Prague (Hlavni mesto Praha in Figure 1) is excluded from the calculation for the 2007-2013 period, then both the strength of the positive association between per capita funds and GDP and its statistical significance becomes stronger ($r$ = .238, p < .05, N = 108).

[117] The total allocation of Structural Funds for the Visegrad countries in 2004-2006 was 12947.1 million EUR, which is equivalent to 4315.7 million EUR of annual spending. For the 2007-2013 programming period the budget allocation for the four countries reached 85601 million EUR, which equals to an annual spending of 12228.7 million EUR. *Source*: the author's own calculation based on the Community Support Frameworks (2004-2006) and the National Strategic Reference Frameworks (2007-2013).

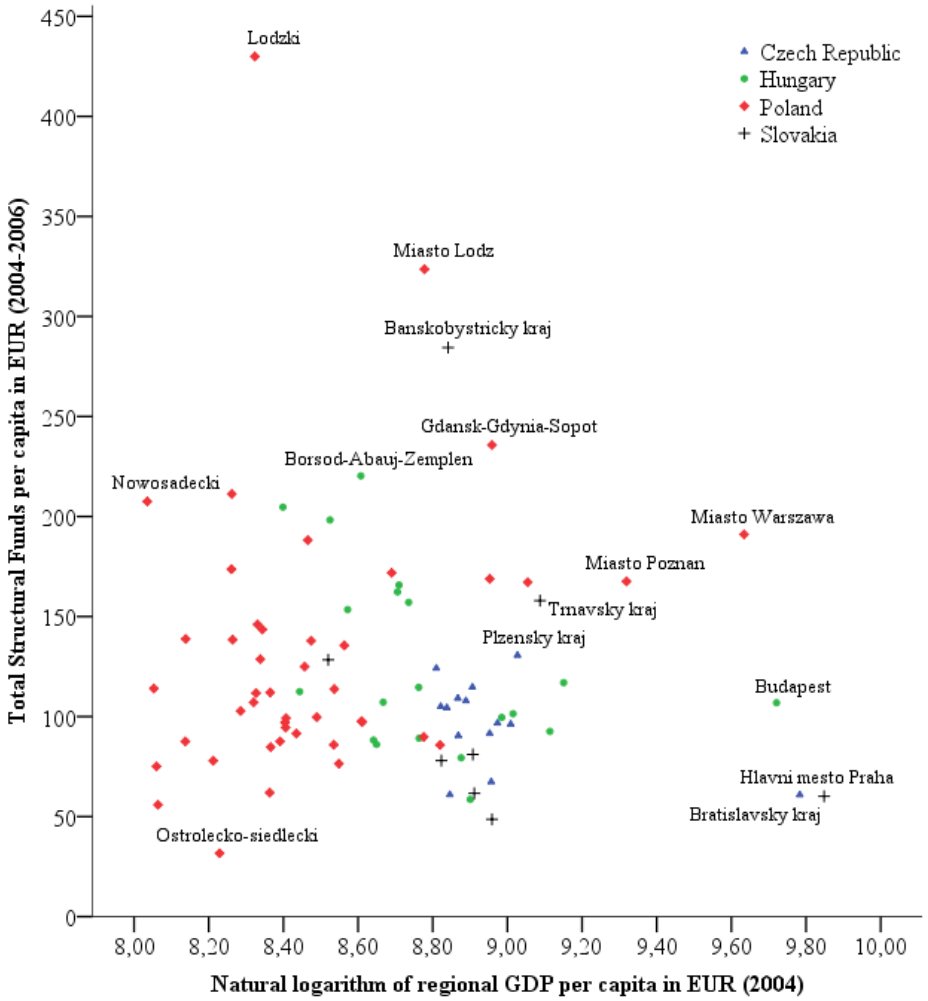
was remarkable: in 2004-2006 the best performing NUTS 3 region (Lodzki, Poland) received thirteen times more per capita EU funds than the one with the lowest financial support (Ostrolecko-siedlecki, Poland). In 2007-2013, there was a similar difference between the chart topper and the "laggard": Rzeszowski (Poland) absorbed nine times more per capita grants than Prague.

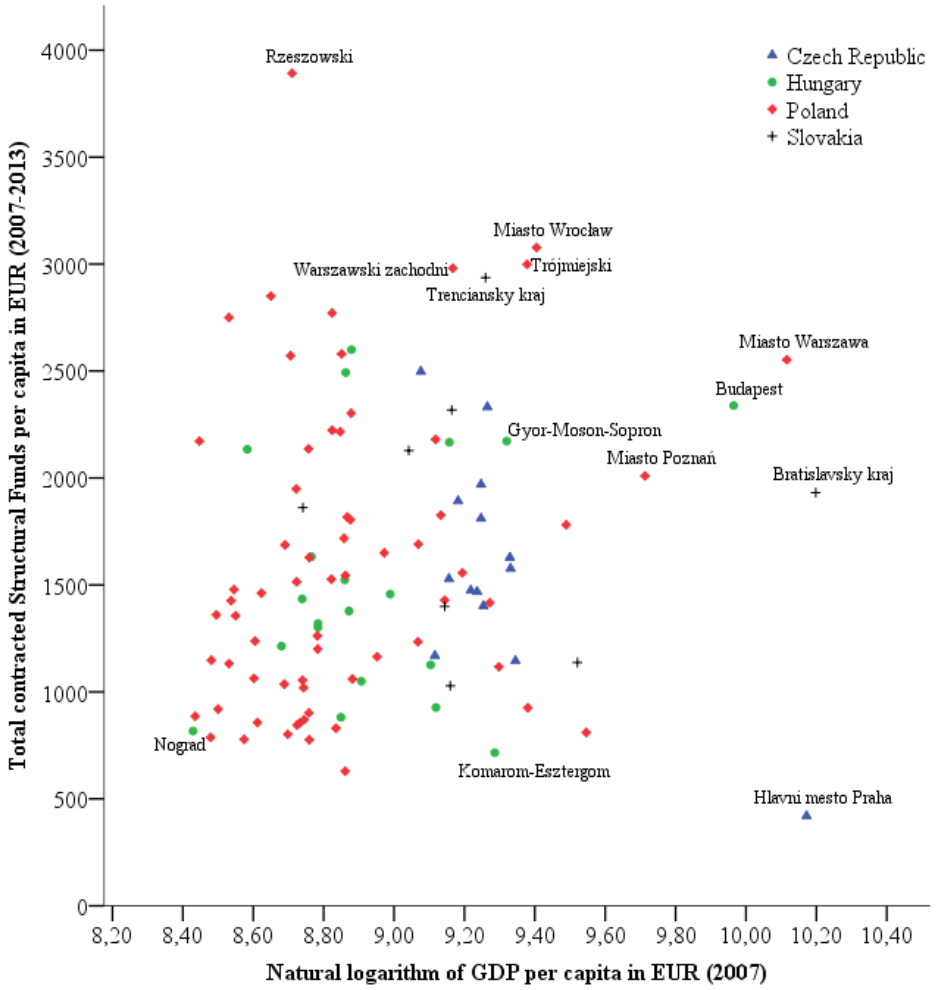
Although Figure 5.1 allows for the assessment of the absolute developmental status and grant-securing performance of the NUTS 3 regions across the V4, in a strict sense it is not suitable for comparing the relative, within-country positions of the territorial units. Figure 5.2 serves exactly this purpose because it shows how far a region falls from the mean value of its country both in terms of per capita GDP and Structural Funds. The relative position of each region was calculated as the difference between the regional value and the country mean. The vertical, dashed reference line in Figure 5.2 thus represents the average GDP per capita at the country level, while the horizontal dashed line stands for the country mean of Structural Funds per capita (for a better visual representation, both indicators have been logarithmically transformed). If a region is placed left to the vertical reference line, then its level of development expressed in GDP per capita falls below the country average. Similarly, if a region is located under the horizontal reference line, then it secured less per capita EU grants relative to the corresponding country mean.

The two reference lines divide the chart into four areas: those regions that fall in the top-right corner have exceeded the country mean both in terms of per capita funds and GDP per inhabitant. Regions in the top-left corner are poorer than the country average but received more than the mean level of Structural Funds per capita. The bottom-left area shows those territorial units that are less developed and also demonstrate a lower than average performance in securing EU funds. Finally, the bottom-right corner represents those regions that are richer than the country average but at the same time received less per capita development support than the country mean.

The Structural Funds may potentially decrease regional disparities if the rich regions get less and the poor ones absorb more financial transfers. Thus in order to realize the equity objective, the NUTS 3 areas would have to inhabit the top-left and the bottom-right corners of the chart and the top-right and bottom-left corners should remain empty. However, it is apparent from Figure 5.2 that none of the programming periods satisfied this condition.

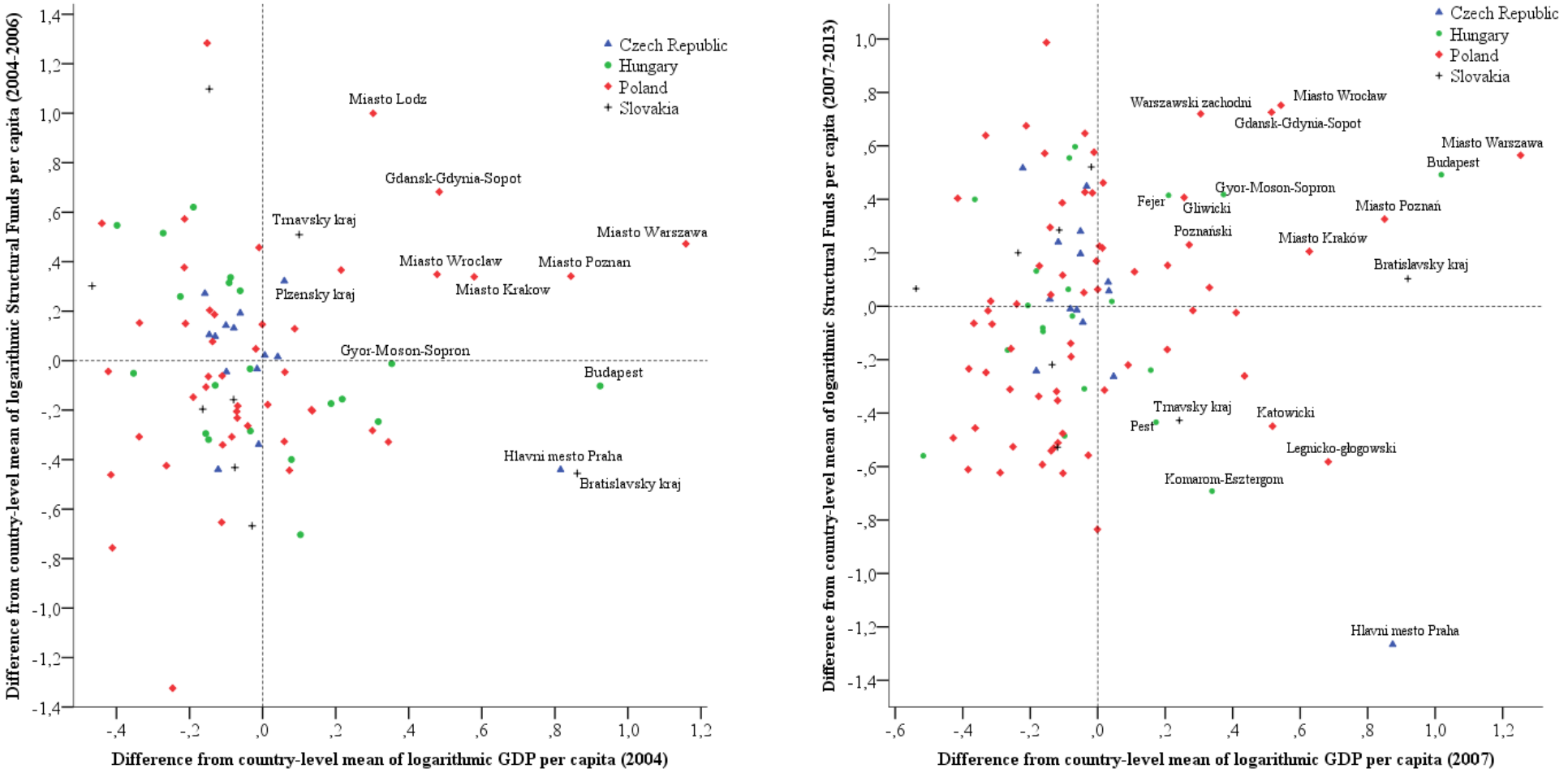
**Figure 5.1: The regional distribution of EU Structural Funds in the Visegrad countries (2004-2006 and 2007-2013)**




*Note*: The 2004-2006 data refer to the former system of 45 Polish NUTS 3 regions.
*Source*: the author's own calculation. The sources of Structural Funds data: SWECO (2008) database for 2004-2006 spending; Ministry of Regional Development (Czech Republic, 2007-2013); Prime Minister's Office, Department for Monitoring and Evaluation (Hungary, 2007-2013); European Funds Portal - Portal Funduszy Europejskich (Poland, 2007-2013); Central Coordination Body – Centrálny Koordinačný Orgán (Slovakia, 2007-2013); Eurostat (GDP and population data); Central Statistical Office of Poland (Polish GDP and population data for 2004).

**Figure 5.2: The regional distribution of EU Structural Funds in the Visegrad countries – relative positions (2004-2006 and 2007-2013)**




*Notes*: The position of each region has been determined by (1) the difference between the region's logarithmic GDP per capita and the respective country's logarithmic GDP per capita; and (2) the difference between regional per capita Structural Funds spending and the corresponding country mean. The vertical and horizontal reference lines represent the country averages.The 2004-2006 data refer to the former system of 45 Polish NUTS 3 regions. *Source*: the author's own calculation. The sources of Structural Funds data: SWECO (2008) database for 2004-2006 spending; Ministry of Regional Development (Czech Republic, 2007-2013); Prime Minister's Office, Department for Monitoring and Evaluation (Hungary, 2007-2013); European Funds Portal - Portal Funduszy Europejskich (Poland, 2007-2013); Central Coordination Body – Centrálny Koordinačný Orgán (Slovakia, 2007-2013); Eurostat (GDP and population data); Central Statistical Office of Poland (Polish GDP and population data for 2004)

In both cases several of the more developed regions demonstrated superior fund-securing performance and most of the less prosperous areas failed to reach similar results. In fact, both in 2004-2006 and in 2007-2013 the number of regions in the bottom-left corner exceeded those in the top-left corner. In the first programming period, 27 less developed NUTS 3 units received higher than average per capita Structural Funds, whereas the fund securing performance of 31 backward regions fell below the average. The corresponding number of regions is 35 (top-left area) and 38 (bottom-left area) for 2007-2013. In addition, while in 2004-2006 fewer more developed areas belonged to the greatest beneficiaries of EU grants (12 regions, top-right corner) than to the group of low achievers (17 regions, bottom-right corner), in 2007-2013 the majority of the prosperous NUTS 3 units (21 vs. 14 regions) enjoyed superior fund-securing performance. This reflects the shift in the regional policies towards the promotion of the national growth-poles. The division of the total amount of EU funds reinforces this finding: while in the first programming period 21.86 percent of all the financial support was spent in regions placed in the top-right corner of the chart, this share increased to 30.26 percent in 2007-2013.[118]

Regarding the within-country distribution of EU grants, the two cycles show many similarities. In the Czech Republic, the most developed Prague region secured one of the lowest per capita funds in 2004-2006 and also in 2007-2013. However, in both periods some of the most advanced regions of the country were among the greatest beneficiaries. In fact, the second richest Plzensky region was the biggest beneficiary of the first programming cycle and it managed to finish in the top-right corner in 2007-2013 as well, along with Jihomoravsky, which was the third most developed area in the beginning of the second period. In the other states the distribution of the funds was more uneven. Although none of the richest regions of Hungary secured higher than average EU grants in 2004-2006, the two richest, Budapest and Győr-Moson-Sopron came close to the mean. The situation substantially changed in 2007-2013 when three of the four most developed regions (Budapest, Győr-Moson-Sopron and Fejér) were among those that benefited the most from the funds. This is in striking contrast with the case of Nógrád, which is the most backward area in Hungary, yet it secured the second lowest amount of per capita grants in the 2007-2013 programming period.

[118] *Source*: the author's own calculation

The 2004-2006 regional distribution of the Structural Funds in Slovakia resembles the Czech pattern. Bratislavsky, the wealthiest region was among the least favoured areas but the second richest NUTS 3 unit, Trnavsky kraj finished in the runner-up position. Nevertheless, the 2007-2013 programming cycle saw the Bratislavsky region among the best performers together with Trenčiansky kraj, which is the third most prosperous area in Slovakia. However uneven the territorial distribution of the funds may seem in the Czech Republic, Hungary and Slovakia, Poland shows the most unequal pattern of all. In both periods the richest metropolitan regions such as Warsaw, Poznań, Cracow, Wrocław and the Tricity (Gdańsk-Gdynia-Sopot) were among those that received the highest amount of EU grants per inhabitant. In contrast, some of the poorest regions, like Krośnieński (Krośnieńsko-przemyski in 2004-2006), Chełmsko-zamojski, and Pilski consistently belonged to the worst performers.

These empirical observations confirm that several, possibly conflicting mechanisms have determined the spatial distribution of EU grants in the Visegrad states. Although the above charts suggest that the economic logic, which is supposed to be advantageous for the more developed areas with higher fund absorption capacity, may have had slightly greater influence on the flow of funds, the evidence does not allow for a definite conclusion in this respect. A more comprehensive investigation incorporating both the regional and the local level of state administration has to be conducted in order to test whether economic, political or other factors have shaped the distribution of funds. The next section, which performs a quantitative analysis on the EU grants in two selected Visegrad countries (Poland and Hungary), is dedicated to this inquiry.

## 5.4 Incorporating the local level: the determinants of the spatial distribution of EU funds in Poland and Hungary

Although the eligibility criteria of the Structural Funds are defined at the regional (NUTS 2 and NUTS 3) level, the EU-funded projects are implemented in localities. This is the reason why one also has to account for the lowest tier of administration to assess the determinants of the regional distribution of EU funds. The simultaneous inclusion of the regional and the local level into the analysis require multilevel modeling, which is a statistical method particularly suitable for analyzing nested data (Hox 2010). This technique allows for testing the effects of both regional- and local-level factors, which would not be possible by taking only a single

level of territorial administration into consideration. In spite of this, all of the studies analyzing the distribution of EU grants have so far focused either on the regional or on the local level, which can be considered as a significant shortcoming of the literature. The multilevel approach adopted here is thus expected to produce better, more refined results than those reported in existing works.

Depending on the conditions outlined in the Operational Programmes, small- and medium sized companies, non-profit organizations, public authorities (including local governments) and in certain cases even natural persons can become beneficiaries of the Structural Funds. Some of them carry out their projects in the same locality where they are officially registered but it often occurs – especially in the case of large investment projects – that the location of the project differs from that of the beneficiary. This section adopts the same location-oriented perspective as the previous one: it focuses on the total amount of EU grants spent by all types of beneficiaries within a given locality. In short, it aims to explore the determinants of the total funds spent within the borders of local governments.

The analysis focuses on the EU grants awarded in 2007-2013. Choosing this regional policy cycle was motivated by the availability of data and by the fact that it has been the only programming period so far which the Visegrad states completed in its entirety. The two countries considered in the analysis are Hungary and Poland. Poland is the only state in the V4 where the NUTS 2 regions have elected regional councils and possess administrative and decision-making powers. In the other three countries it is the NUTS 3 level that has some degree of autonomy while the NUTS 2 units serve merely statistical and planning purposes. Moreover, Poland has the most decentralized system of territorial administration among the V4 and its local government units are far bigger both in terms of size and population than in the other three states thus it represents a unique case within this country group (Dąbrowski 2014). Conversely, Hungary is the most centralized state of all but its territorial administrative structure closely resembles that of the Czech Republic and Slovakia. The Polish case is discussed first which is followed by the presentation of the Hungarian results.

### *5.4.1 Poland*

Excluding the operational programme for technical assistance, in the 2007-2013 programming period three sectoral OPs were executed in Poland through which 69 percent of the total EU funding was disbursed. Besides the sectoral programmes, all the 16 voivodships had their own regional operational programmes (ROP) which were drafted with a relatively broad involvement of local and regional stakeholders (Dąbrowski 2012). Altogether, the budget of the ROPs amounted to 24.9 percent of the whole EU contribution.[119] In addition, a multi-regional OP was also introduced which sought to provide assistance for the five most backward eastern voivodships[120] (Ferry and McMaster 2013a). This programme, the Development of Eastern Poland OP represented 3.4 percent of the total support allocated for the country. The Ministry for Regional Development became the managing authority of the sectoral OPs and the multi-regional operational programme[121], whereas the voivodships were responsible for managing and implementing their own regional programmes (Ferry 2013).

Although these institutional arrangements assume an increased role for the regional administrations, their involvement in regional policy was (at least initially) hampered by the central government. In October 2006, just a few weeks before the local government elections, the right-wing majority of the parliament led by the Law and Justice party (PiS) adopted a bill that enabled the state-appointed voivods to supervise and potentially veto project selection in the regional OPs if they encountered "irregularities" in those processes. The parliamentary opposition was expected to win the local elections thus the government tried to strengthen central control over the regions in advance: "assigning a veto right to voivodes based upon very vague assessment criteria would enable these political appointees chosen by the government to prevent a distribution of resources against the will of the governing coalition" (Brusis 2013 p. 418). The regional self-governments protested against the law and the representatives of Civic Platform (PO), the main opposition party, also expressed strong criticism (Gwiazda 2013). In addition, the European Commission considered the measure as a



[119] *Source*: the author's own calculation based on the National Strategic Reference Framework for 2007-2013.
[120] The NUTS 2 regions that received funds from the multi-regional OP are Warmińsko-Mazurskie, Podlaskie, Lubelskie, Podkarpackie and Świętokrzyskie.
[121] In November 2013, the Ministry was merged with the Ministry of Transport, Construction and Marine Economy. The new Ministry of Infrastructure and Development continues to serve as the managing authority of the operational programmes. *Source*: Ministry of Infrastructure and Development (http://www.mir.gov.pl/english/management/about_ministry/strony/default.aspx)

violation of the rights granted to managing authorities. As a consequence, the government had to back down and in June 2007 the veto provision was removed from the law (Ferry 2013).

Although Poland's 2007-2013 operational programmes were entirely planned and drafted during the term of the PiS-led government, their implementation began just a few months before the Civic Platform and its ally, the Polish People's Party (PSL), won the early elections in November 2007. The PO-PSL government maintained its parliamentary majority after the 2011 elections thus they remained in power during the whole programming period. While the junior coalition partner, PSL proved more popular in the eastern and agricultural areas of the country, the large cities and the western and southwestern regions represented the key constituency of PO. This created an electoral incentive for the party to steer development funds to the urban areas. In line with this, in May 2008 the PO-led Ministry of Interior and Public Administration presented a plan on the creation of seven metropolitan regions which would have gained a great degree of fiscal autonomy and special legal status. The idea was opposed even by the junior coalition partner thus the plan was abandoned (Brusis 2013 p. 420). Nevertheless, this episode indicated that the metropolitan areas might receive preferential treatment from the government, in addition to the stipulations laid down in the National Development Strategy for 2007-2015, and the National Strategy of Regional Development for 2010-2020 which also gave preference to them (see more on this in Chapter 4).

The above considerations add a political dimension to the empirical observations discussed in the previous section which showed that in the 2007-2013 programming period the more developed urban areas benefited the most from the Structural Funds. On the one hand, the regional level of economic activity and institutional capacity already determined the quality and quantity of applications for cohesion policy projects (Ferry 2013 p. 1590). On the other hand, the political preferences of the PO-PSL government and especially those of PO may have reinforced these tendencies. In his recent article, Dąbrowski (2012) suggests that especially the infrastructural investments financed by the EU were particularly influenced by political considerations and ambitions of local leaders, which brings further support for the assumption that besides the economic logic, a political one has also shaped the distribution of funds.

These propositions are tested on a comprehensive dataset containing 101,529 EU-funded projects that have been contracted within the operational programmes[122] until April 2014.[123] The total value of these projects is 370.9 billion PLN (approximately 89.3 billion EUR) of which the EU support amounts to 191.9 billion PLN (46.2 billion EUR). This sum represents about 72 percent of the total Structural Funds assistance earmarked for Poland for 2007-2013. For each project, the database indicates the main location of implementation therefore it is possible to calculate the total EU support spent in each of the 2478 Polish local governments (*gmina*). The amount of EU grants per capita spent in a locality constitutes the dependent variable of the analysis.[124]

The amount of per capita funds is expected to vary both across the local governments and the regions and this is why explanatory factors from both levels are considered for the models. To test the hypothesized effects, a series of multi-level regressions are estimated where the data has a hierarchical structure in that the local governments are nested in regions. Instead of the NUTS 3 regions, the NUTS 2 level voivodships comprise the regional level of the analysis because unlike the NUTS 3 units, they possess administrative powers and are also involved in the management of the funds. The choice for the voivodships thus allows for modeling regional-level political effects on fund distribution, which would not be possible in the case of the Polish NUTS 3 areas.

Regarding the local government level, both their socio-economic and political characteristics are accounted for. All the selected socio-economic indicators represent the 2007 values so that they reflect the situation at the beginning of the programming period. The local governments' total own budget revenue and their total own tax revenue per inhabitant and the number of private sector entities per thousand inhabitants are alternative measures revealing how affluent a locality is. If the above discussed assumptions about the distribution of EU funds are correct, then the wealthier localities may secure more grants. Another indicator is the local level of unemployment, which demonstrates the extent to which a location's economy suffers from structural problems. In theory, the funds support these areas therefore unemployment is expected to be inversely related to EU grants. The size of population is another potential

[122] Excluding the Technical Assistance OP
[123] *Source*: official website on the European Funds in Poland (*Portal Funduszy Europejskich*), List of Beneficiaries (Available at http://www.funduszeeuropejskie.gov.pl/NaborWnioskow/listabeneficjentow/Strony/Lista_beneficjentow_FE_310314.aspx, accessed on 12 May 2014)
[124] The original indicator was logarithmically transformed before entering it to the models.

factor influencing the amount of development support spent in a locality. The lowly populated places may receive less funding because they have fewer actors that could either co-finance or submit project applications. Finally, the per capita number of foundations, associations and social organizations is a proxy for the density of civil society initiatives, which may be positively related to the grants: the greater the density of civil organizations, the more EU funds may flow to the locality.

With respect to the political variables at the local level, they need to reflect both the outcomes of the 2006 and 2010 local elections and the 2007 and 2011 parliamentary elections. The share of local votes for Civic Platform and the Polish People's Party in 2007 and in 2011 show the popularity of the two governing parties. Furthermore, binary variables indicate whether PSL or PO-affiliated mayors won both in the 2006 and the 2010 local elections. A persistent political alignment with the central government is expected to yield more EU funds. Interestingly, while PO was much more successful at the parliamentary elections, PSL demonstrated greater local embeddedness, which may be explained by the historical presence of the party's predecessors in the agrarian eastern territories (Zarycki 2000 p. 865). In 2006, PSL-affiliated candidates won in 376 *gminas* whereas only 92 PO-supported mayors were elected. A similar pattern emerged in 2010: mayors nominated by PSL celebrated victory in 410 local governments while PO candidates won only in 178 localities. The mismatch between the local and the national influence between the two coalition parties give rise to a peculiar political dynamic, which may potentially affect the distribution of funds.

The regional variables also reflect economic, institutional and political characteristics. Based on the declared ambition of the Structural Funds, the voivodships' GDP per capita should be negatively associated with the amount of funds, unlike the regional level of unemployment, which is expected to demonstrate a positive nexus with EU grants. However, these hypothesized relationships may show opposite directions if the economic logic of fund distribution prevails. The share of PO and PSL representatives in the regional councils after the 2006 and the 2010 local elections reveal the degree of regional political alignment with the central government. The stronger the government's regional representation, the more EU funds the voivodship may receive. The quality of regional government index (Charron et al. 2014) allows for testing the assumption that institutional quality may be positively associated with the amount of EU grants. Finally, in order to determine whether the Development for Eastern Poland Operational Programme indeed resulted in more funds for the targeted

regions, a dummy variable indicating the affected five eastern voivodships is also introduced to the models.

The dependent variable, EU funds per capita vary greatly across the local governments.[125] While the mean support per *gmina w*as 4501 PLN (approximately 1125 EUR), a rural *gmina* in the Lodzkie voivodship, Łęki Szlacheckie accumulated the lowest level of support with only 48.5 PLN per capita (about 12 EUR). In contrast, Wisznia Mała, another rural local government in the Dolnosłaskie region benefited the most because the total EU funds per capita spent in that locality reached 143,286 PLN (about 35,000 EUR). This suggests that in its original scale the distribution of the dependent variable is highly skewed to the right. The logarithmic transformation of the values, however, produces an almost perfectly normally distributed indicator thus the logarithmic values are entered to the models.[126]

The intraclass-correlation coefficient calculated from the null or intercept-only model (not reported here) shows that 4.9 percent of the variation in EU funds arises from differences among the voivodships, which justifies the application of multilevel models. The correlation matrix (see Appendix A5.6) of the local-level indicators reveals a strong association between per capita tax and total own budget revenue and between private companies and total own budget revenue. Because of this, in order to avoid problems of collinearity and to raise the robustness of the findings by estimating the models with two different yet related indicators of local affluence, tax revenue and private companies are separately entered to the models while total own budget revenue is not included. As expected, the share of votes for PO and PSL show a strong negative correlation, therefore these measures are also used separately. Regarding the regional-level variables, they seem to be relatively strongly related to each other but in this case the coefficients are less stable because of the low number of voivodships. Nevertheless, due to the strength of association between GDP per capita and the governing parties' seat share in the regional councils after the 2006 local elections, only the corresponding seat share following the 2010 local elections is used in the models. Finally, to facilitate the interpretation of the results and to reduce the undesired effects of collinearity (see for instance Hox 2010; Tabachnik and Fidell 2007), all the continuous explanatory

[125] For the detailed descriptive statistics of the variables please consult Appendix A5.4.
[126] Please consult Appendix A5.5 for the histogram of the transformed variable.

variables are centred on the country mean and some of them are also logarithmically transformed because of the strongly right-skewed distribution of the original values.[127]

Table 5.1 reports the results of the multilevel regressions, which confirm that both economic and political factors played a role in the distribution of Structural Funds. Tax revenue per capita and the number of private companies per thousand inhabitants are those economic indicators that have the strongest impact on the grants. In each specification, these two variables are positively and significantly related to the dependent variable, which means that if all else is equal, then, on average, more EU funds are spent in those local governments which produce greater economic output. The local level of unemployment, however, shows a significant negative association with the funds. This implies that if all other conditions are the same, per capita EU grants will, on average, be higher where unemployment levels are lower. Population size also seems to positively affect the outcome but this relationship is significant only if the indicator of private companies is excluded from the model. Lastly, the density of civil society organizations does not show any significant association with EU funds. The effects of the local governments' socio-economic characteristics on the dependent variable therefore reinforce the assumption about the dominant role of the economic logic which presumes that funds tend to concentrate in the wealthier places, if all other conditions are equal.

The impact of the political variables on the outcome reveals a compelling pattern. Although the party-affiliation of the mayors does not show any relationship with the dependent variable, the vote shares do. While the vote share of Civic Platform is positively associated with EU funds, and this relationship is significant in each specification, the vote share of the junior coalition partner, the Polish People's Party is negatively related to the dependent variable. This negative impact is also consistent and except for Model 14 it is significant as well. Because Civic Platform was more popular in richer localities, whereas the strongholds of PSL are typically poorer rural areas, one may doubt that these variables truly measure a political rather than a latent economic effect. These concerns can be mitigated. First, the coefficients show each variable's unique impact on the dependent variable after controlling for the effect of all the other variables in the model. To put it differently, the political variables have a statistically significant relationship with EU funds in spite of the significant effects of the

[127] The following explanatory variables were logarithmically transformed for the analysis: tax revenue per capita, private companies per thousand inhabitants, population, NGOs per thousand inhabitants, GDP per capita.

**Table 5.1: Results of the multilevel models for Poland (dependent variable: EU funding per capita in 2007-2013)**

| | Model 11 | | Model 12 | | Model 13 | | Model 14 | | Model 15 | | Model 16 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **B** | **SE** | **B** | **SE** | **B** | **SE** | **B** | **SE** | **B** | **SE** | **B** | **SE** |
| Constant | 7.772*** | .056 | 7.762*** | .058 | 7.785*** | .048 | 7.789*** | .048 | 7.760*** | .052 | 7.748*** | .053 |
| *Gmina-level fixed effects* | | | | | | | | | | | | |
| Population | .083** | .039 | .082** | .039 | .089*** | .033 | .100*** | .035 | .017 | .048 | .023 | .048 |
| Tax revenue | .571*** | .046 | .560*** | .044 | .600*** | .041 | .605*** | .040 | | | | |
| Private companies | | | | | | | | | .449*** | .111 | .429*** | .110 |
| Unemployment | -.014** | .007 | -.014** | .007 | -.014** | .007 | -.015** | .007 | -.019*** | .006 | -.019*** | .005 |
| NGOs | .010 | .070 | .009 | .069 | .017 | .070 | .012 | .073 | .051 | .079 | .048 | .078 |
| PO vote share (2007) | .006* | .003 | | | | | | | .011*** | .003 | | |
| PO vote share (2011) | | | .007** | .003 | | | | | | | .012*** | .003 |
| PSL vote share (2007) | | | | | -.006*** | .002 | | | | | | |
| PSL vote share (2011) | | | | | | | -.004 | .003 | | | | |
| PO mayor (2006 & 2010) | -.008 | .064 | -.016 | .066 | .014 | .070 | .017 | .071 | -.081 | .062 | -.088 | .065 |
| PSL mayor (2006 & 2010) | .016 | .064 | .020 | .065 | .034 | .057 | .013 | .061 | .031 | .060 | .033 | .062 |
| *Regional-level fixed effects* | | | | | | | | | | | | |
| GDP per capita | .278* | .166 | .315* | .169 | .264* | .159 | .249 | .167 | .383** | .154 | .436*** | .149 |
| Regional unemployment | .081** | .037 | .080** | .036 | .087** | .036 | .085** | .037 | .090** | .039 | .090** | .038 |
| Quality of government | .567 | .422 | .591 | .430 | .567 | .402 | .573 | .392 | .558* | .328 | .602* | .337 |
| Eastern region | .247** | .104 | .280** | .110 | .199** | .087 | .199** | .094 | .300** | .117 | .344*** | .121 |
| PO-PSL seat share (2010) | .000 | .006 | -.001 | .006 | .001 | .006 | .001 | .006 | .000 | .006 | -.001 | .006 |
| *Cross-level interactions* | | | | | | | | | | | | |
| Population * GDP | | | | | | | | | | | | |
| Unemployment * GDP | | | | | | | | | | | | |
| Tax revenue * GDP | | | | | | | | | | | | |
| *Random effects* | | | | | | | | | | | | |
| Gmina-level variance | .843*** | | .842*** | | .844*** | | .845*** | | .883*** | | .881*** | |
| Regional-level variance | .014*** | | .014*** | | .012*** | | .013*** | | .013*** | | .013*** | |
| -2Log likelihood | -6629 | | -6625 | | -6629 | | -6633 | | -6742 | | -6736 | |
| Wald Chi-square | 1104.2*** | | 1382.4*** | | 1445.6*** | | 1598.4*** | | 302.1*** | | 338.8*** | |



Unstandardized coefficients, robust standard errors. * p < .1; ** p < .05; *** p < .01

**Table 5.1 (cont.): Results of the multilevel models for Poland (dependent variable: EU funding per capita in 2007-2013)**

| | Model 17 | | Model 18 | | Model 19 | | Model 20 | | Model 21 | | Model 22 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **B** | **SE** | **B** | **SE** | **B** | **SE** | **B** | **SE** | **B** | **SE** | **B** | **SE** |
| Constant | 7.788*** | .045 | 7.787*** | .045 | 7.757*** | .058 | 7.744*** | .053 | 7.762*** | .058 | 7.762*** | .058 |
| *Gmina-level fixed effects* | | | | | | | | | | | | |
| Population | .029 | .046 | .033 | .047 | .084** | .037 | .025 | .047 | .079** | .039 | .082** | .039 |
| Tax revenue | | | | | .563*** | .045 | | | .567*** | .045 | .560*** | .044 |
| Private companies | .559*** | .092 | .561*** | .088 | | | .424*** | .110 | | | | |
| Unemployment | -.019 *** | .006 | -.020*** | .006 | -.014** | .007 | -.019*** | .005 | -.016*** | .006 | -.014** | .007 |
| NGOs | .052 | .082 | .050 | .084 | .006 | .069 | .047 | .078 | .007 | .070 | .009 | .068 |
| PO vote share (2007) | | | | | | | | | | | | |
| PO vote share (2011) | | | | | .008*** | .003 | .013*** | .003 | .008** | .003 | .007** | .003 |
| PSL vote share (2007) | -.006** | .003 | | | | | | | | | | |
| PSL vote share (2011) | | | -.006* | .003 | | | | | | | | |
| PO mayor (2006 & 2010) | -.044 | .067 | -.046 | .068 | -.022 | .062 | -.094 | .062 | -.016 | .067 | -.015 | .066 |
| PSL mayor (2006 & 2010) | .037 | .058 | .025 | .062 | .019 | .065 | .033 | .062 | .018 | .065 | .020 | .065 |
| *Regional-level fixed effects* | | | | | | | | | | | | |
| GDP per capita | .320* | .186 | .323 | .201 | .284* | .168 | .411*** | .147 | .321* | .168 | .316* | .169 |
| Regional unemployment | .098** | .041 | .096** | .042 | .077** | .036 | .088** | .038 | .085** | .036 | .080** | .036 |
| Quality of government | .560* | .294 | .565* | .288 | .534 | .423 | .551* | .331 | .583 | .437 | .594 | .428 |
| Eastern region | .216* | .112 | .229* | .118 | .300*** | .110 | .361*** | .122 | .291*** | .105 | .279*** | .109 |
| PO-PSL seat share (2010) | .003 | .006 | .003 | .006 | .000 | .006 | .000 | .006 | -.001 | .006 | -.001 | .006 |
| *Cross-level interactions* | | | | | | | | | | | | |
| Population * GDP | | | | | -.292*** | .061 | -.249*** | .069 | | | | |
| Unemployment * GDP | | | | | | | | | .032 | .013 | | |
| Tax revenue * GDP | | | | | | | | | | | .022 | .129 |
| *Random effects* | | | | | | | | | | | | |
| Gmina-level variance | .887*** | | .887*** | | .839*** | | .878*** | | .841*** | | .842*** | |
| Regional-level variance | .013*** | | .014*** | | .014*** | | .013*** | | .014*** | | .014*** | |
| -2Log likelihood | -6754 | | -6756 | | -6616 | | -6728 | | -6623 | | -6626 | |
| Wald Chi-square | 571.4*** | | 883.9*** | | 3172.9*** | | 1092.1*** | | 2497.6*** | | 2583.6*** | |

Unstandardized coefficients, robust standard errors. * p < .1; ** p < .05; *** p < .01

other, socio-economic indicators. Second, even though the vote shares correlate with per capita tax revenue and private companies, the Cronbach-alpha scores of these items[128] suggest that the political variables clearly measure a concept (party popularity), which is distinct from or at least not directly related to the economic situation of the localities.

Based on the above it is safe to infer that political effects have indeed influenced the distribution of EU funds in Poland: evidence suggests that *ceteris paribus* more development support was spent in those gminas where Civic Platform gained a higher vote share. The negative relationship between the votes for PSL and EU funds reinforces this finding because PO's performance was poor exactly in those places where its junior coalition partner proved the most successful. On the one hand, this suggests that Civic Platform's influence on EU grants was much greater than that of PSL. On the other hand, the political effect on fund distribution seems to have reinforced the economic logic because PO's strongholds are located in the richer, more urbanized areas, which, nonetheless, are capable of attracting more funds compared to the poor, less populated places.

The regional-level fixed effects refine the previous findings. Although the quality of government index shows a consistently positive sign, in half of the models this effect is not significant therefore the models are not conclusive in this respect. This is not the case with the regions' political alignment with the central government because based on the results this factor does not have any explanatory power on the dependent variable. Nevertheless, the other three regional indicators reveal an interesting pattern. Contrary to the official goals of the EU's cohesion policy, regional GDP per capita is positively and significantly associated with the dependent variable, which implies that if all else is the same, then, on average, more funds will be spent in gminas located in richer voivodships. However, the indicator of regional unemployment and the dummy for the eastern regions are also significant and show a positive association with the grants, which is in line with the aims of the policy.



[128] Cronbach's alpha is a coefficient of reliability that shows how closely related a set of indicators are as a group. Higher values indicate greater internal consistency of the variables. In social science research, a commonly accepted threshold for Cronbach's alpha is 0.7. The alpha score of the three indicators, namely PO vote shares (either taking the 2007 or the 2011 values) and per capita tax revenue and private companies is 0.11 but the score for the two indicators of tax revenue and private companies is .68. Pairing PO vote shares either with tax revenue or private companies results in even lower alpha scores (below 0.1). If PO vote shares are replaced with PSL vote shares, the same picture appears. In short, the political variables do not measure the same concept as tax revenue and private companies.

To interpret these results, one has to bear in mind that the coefficients reveal the effect of an additional unit of the explanatory factors on the dependent variable, if all other variables in the equation are held constant. Thus if all else is the same, then, on average, local governments in richer voivodships will secure more grants per capita. In a similar vein, if all the characteristics of two localities are the same but one of them lies in a region that has a higher level of unemployment, then this locality is likely to receive more funds. Likewise, gminas targeted by the Development for Eastern Poland programme may, on average, secure more support if all the other conditions are constant. These effects seem to draw funds in opposite directions: the wealthier a region where the gmina is located, the more funds it may attract but at the same time greater regional structural problems indicated by higher unemployment rate and the region's backward status also increases the total amount of per capita EU grants.

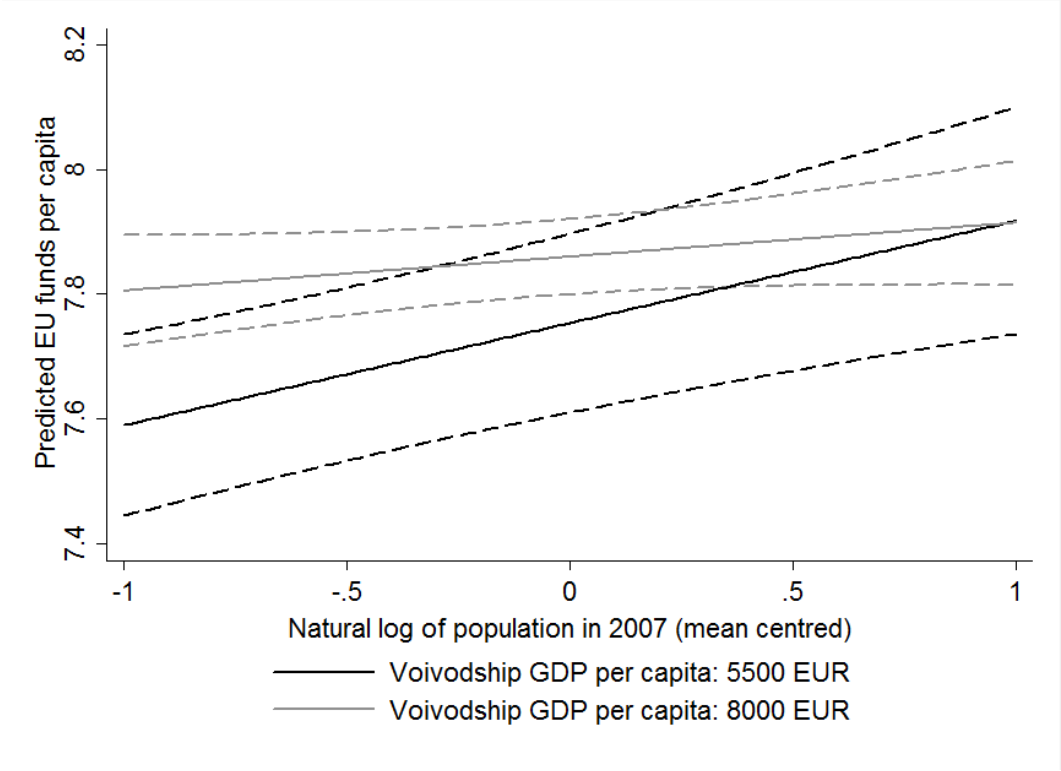
In reality, the two opposite effects cancel each other out: development support spent in the gminas located in the five most backward eastern voivodships does not deviate from the pattern observed for the other local governments. To put it differently, the localities in the most backward regions did not receive substantially higher amount of funds than the ones in the more developed areas. The average EU grants per capita in the 708 gminas of the five eastern voivodships reached 4567 PLN (1142 EUR), whereas the same figure was just slightly lower, 4476 PLN (1119 EUR) for the other 1770 gminas of the country.[129] In sum, the exclusive but rather low support for the eastern regions provided through the Development for Eastern Poland operational programme was only enough to counterbalance the effects of universal targeting, which, as it has been already discussed, enables the economic logic to prevail in fund distribution.[130]

These considerations also suggest that a potential interplay between regional and local characteristics may also determine the spatial diffusion of EU grants. Models 19 to 22 capture such cross-level interactions between voivodship GDP and the size of local population, the level of unemployment and tax revenue. The interaction effects between unemployment, tax revenue and GDP (Model 21 and 22) are not significant, but the product of population and

[129] In fact, an independent samples t-test reveals that, assuming equal variances across the groups, the difference in the mean EU funding per capita between gminas in the Eastern voivodships and in the rest of the country is statistically not significant ($t(2476) = 1.667$, $p > .1$).
[130] The distribution of EU funds across the gminas located in the five eastern voivodships and in the rest of the country is visually displayed in Appendix A5.1.

regional GDP is negative and significant in both Model 19 and 20 although the main effect of population is not significant in Model 20 where the indicator of private companies replaces tax revenue. The negative interaction effect between population and regional wealth would imply that the concentration of EU funds in more populated (i.e. urban) localities is stronger in poorer than in rather affluent voivodships, if all other conditions are the same. Figure 5.3 shows this marginal effect for a relatively rich and a relatively poor region. Although in both voivodships the more populated localities accumulated higher per capita EU support, the overlapping confidence intervals show that this effect is statistically not different across the regions. All else being the same, gminas with fewer inhabitants tend to receive less funds per capita regardless whether they are located in a richer or in a poorer voivodship.

**Figure 5.3: The marginal effect of regional GDP per capita with population size on EU funds in Poland (Model 19)**




Finally, the size of the effect of the key variables on the outcome needs to be assessed as well. Among the models, no. 19 offers the best fit to the data as it has the lowest -2Log likelihood[131] thus this one has been chosen for the following calculations. Because the dependent variable and some of the explanatories entered the models on a logarithmic scale, the interpretation of

[131] Based on the formulas provided by Hox (2010 p. 71), Model 9 explains 12.7 % of the total variance in the dependent variable and 71.4 % of the variance at the regional level, which can be considered a reasonably good fit.

the coefficients is not as straightforward as it would be without the logarithmic transformation. First, the constant shows the predicted value of the dependent variable if all the explanatory factors are zero. Because the continuous variables have been centred, in their case zero stands for the logarithmic mean of the whole population of gminas. Thus the constant indicates the predicted amount of EU funds per capita for a gmina that is not located in an eastern voivodship but in every other aspect it represents average values including the region to which it belongs. According to Model 19, this locality is predicted to secure EU grants equal to 2338 PLN (584 EUR) per inhabitant.

As for the coefficients of the local economic factors, a one percent increase in per capita tax revenue is associated with 0.56 percent increase in EU funds per capita. A similar increase in the size of population results in a 0.08 percent rise in the dependent variable. However, the same, one percent increase in the level of unemployment decreases the predicted value of the dependent variable by 1.4 percent.[132] Likewise, a one percent rise in the political variable, which is the vote share for Civil Platform in 2011, increases per capita EU grants by 0.8 percent.[133] Regarding the regional-level fixed effects, a one percent increase in the voivodship's GDP per capita leads to a 0.28 percent change in the dependent variable, while the same rise in the regional level of unemployment is associated with a 7.7 percent increase[134] in per capita EU grants, if all other variables are constant. Finally, the coefficient for the eastern voivodship dummy reveals that if a gmina is located in one of the five most backward regions, then *ceteris paribus* it increases the expected amount of per capita EU grants by 35 percent.[135] This is a huge impact but it needs to be taken into account that the average socio-economic circumstances of the gminas in the eastern regions are substantially inferior to the ones located in the other parts of the country thus the positive pull-effect on

[132] The local level of unemployment, which is expressed in percentages, entered the models in its original scale. If the dependent variable is logarithmic but the continuous explanatory remains in its original scale, then, in the case of small coefficient values, a unit increase in the explanatory indicator changes the dependent variable by 100*(coefficient) percent (Gujarati 2004 pp. 179–180). In this case, a one percent increase in the local level of unemployment is associated with [100 * (-0.014)] = -1.4 percent change in EU funds per capita.

[133] The vote share for Civil Platform in 2011 was also included into the model in its original scale thus the coefficient of this indicator is interpreted in the same way as the coefficient of local unemployment (see the previous footnote).

[134] The regional level of unemployment expressed in percentages was included in the estimations in its original scale. Therefore the same rule applies to the interpretation of its coefficient as in the cases of local unemployment and Civil Platform's vote share.

[135] In the case of logarithmic dependent variables, the dummy variable's impact on the outcome (if the value of the dummy switches from 0 to 1) is interpreted in the following way: 100 * [exp(coefficient) - 1] percent. Entering the coefficient value to the equation produces 100 * [exp(0.3) - 1] = 34.98 (%). For more on this consult Giles (1982) or van Garderen and Shah (2002).

funds predicted by the dummy variable is practically "eaten away" by the push-effect of the other conditions.[136]

All things considered, the analysis of the Polish data has confirmed that both economic and political factors have played a role in the distribution of EU grants. The models identified mechanisms that draw the funds into opposite directions. The economic logic, which is advantageous for wealthier localities, dominates the distribution of funds while the political factors reinforce this process. The mixed impact of the regional characteristics only moderately compensates for these local effects. Consequently, EU grants may not decrease regional disparities but they seem to contribute to intra-regional inequality. The next section performs a similar analysis on the Hungarian data.

### *5.4.2 Hungary*

Hungary's Structural Funds allocation in the 2007-2013 programming period reached 16.67 billion EUR, which was divided among seven sectoral and seven regional operational programmes. The budget of the sectoral OPs took a 63 percent share of the total funding and the remaining part was dedicated to the regional OPs.[137] Six NUTS 2 units qualified as convergence regions thus they were eligible for the highest level of support, whereas Central Hungary, which incorporates the capital city of Budapest and Pest county, received EU grants as a competitiveness and employment region. This status, at least in theory, would imply lower financial transfers but as Figure 5.1 and 5.2 have already revealed, it did not prevent Budapest from becoming one of the top beneficiaries in this period.



[136] Considering the characteristics of an average gmina in the five eastern voivodships and comparing these figures to those of an average gmina in the rest of the country reveals that all the local conditions work against the concentration of funds in the east. According to data for 2007, the average population size of gminas in the five eastern voivodships was 11 522 compared to 16 925 for gminas in the rest of the country. The other figures for comparison (the first value is the average for gminas in the five eastern regions, while the second one represents the mean of the gminas in the rest of Poland): tax revenue per capita: 309 PLN (77 EUR) vs. 415 PLN (104 PLN); local unemployment 10.3 % vs. 8.3 %; private companies per thousand inhabitants: 51.9 vs. 71.3; vote share of Civic Platform in 2007: 22.8 % vs. 32.8 % and in 2011: 21.01 % vs. 32.3 %. In addition, the average per capita GDP in the five eastern voivodships is far below the average of the other regions (22 000 PLN vs. 33 111 PLN in 2007, approximately 5500 EUR vs. 8278 EUR). According to the regression models, only the average regional unemployment level in the east is associated with more EU grants: 9.1 % vs. 6.7 % in 2007.

[137] *Source*: the author's own calculation based on the National Strategic Reference Framework for 2007-2013.

The institutional arrangement for managing the operational programmes in Hungary was different from the Polish system in that it provided fewer powers for the regional level. Although the NUTS 2 level Regional Development Councils were involved in the drafting of the regional OPs and their development agencies were assigned with the task of implementing these programmes, the National Development Agency (NDA), which became the single managing authority of all the operational programmes, exercised close supervision over them. The previous chapter has discussed that after the 2006 parliamentary elections, the socialist-liberal government further centralized the institutional architecture of development policy and as a consequence, the Prime Minister gained strong political control over funding decisions (Buzogány and Korkut 2013; Korkut 2008). In practice, the powerful NDA operated in isolation from the rest of the state bureaucracy. Besides being the single managing authority, it was also responsible for the implementation of the sectoral OPs, which meant that even the line ministries lacked formal influence over the funding process. The parallel institutional structures (one for EU regional policy and another one for traditional state administration) eroded the bureaucratic coordinating mechanisms, which were replaced by political bargaining. In the end, all the strategic and even some of the operative decisions were taken by the government, therefore strong political influences characterized the allocation of funds (Perger 2010).

The 2010 parliamentary elections brought a landslide victory to Fidesz, the right-wing opposition party, which, in an attempt to radically break with the past, engaged in a profound transformation of Hungary's political system, which for instance also involved the adoption of a new constitution. However, with respect to the management of EU financial transfers, the new government interpreted this radical break in a peculiar way: it fully embraced the idea of centralization and introduced measures which further strengthened central control over the funds. Act no. 198 of 2011 abolished the NUTS 2 level regional development councils and their development agencies and delegated all of their responsibilities to the NUTS 3 level county assemblies (*megyei közgyűlés*). Although at first instance this provision seem to have assigned more rights to the only self-elected bodies at the middle tier of state administration, in reality the elimination of the regional (NUTS 2) administration reinforced central government control and undermined the involvement of civil partners in the funding process (Pálmai 2013; Pálné Kovács 2013). Furthermore, after the 2010 local elections, Fidesz has gained majority in all the county assemblies as well, thus in practice the governing party has been capable of exercising full control over the distribution of EU grants. In the local

elections held in autumn 2014 Fidesz managed to retain its political dominance both at the regional and the local levels.

Although the above considerations suggest that political influences have substantially determined the allocation of development funds in Hungary, hardly any empirical works have so far provided evidence for those claims. An exception in this respect is the analysis prepared by Csengődi and his co-authors (2006) who investigated the distribution pattern of EU grants at the NUTS 4 level (microregions) in the 2004-2006 programming period. On the one hand, they showed that the system directed funds towards the more developed areas, thus it worked against the reduction of existing territorial disparities. On the other hand, the authors found that the local vote share for the Hungarian Socialist Party (MSZP) in the 2002 parliamentary elections had a significant positive association with the amount of grants. These findings contradict those of Lukovics and Loránd (2010), who also chose microregions as the unit of analysis. They concluded that in 2004-2006, EU grants mainly targeted the backward places thus the financial transfers rather served the purpose of internal convergence. However, in their study the authors did not test the impact of any political factors on the distribution of funds.

The only published work to date that focused on the local level has revealed that both economic and political effects played a role in fund allocation between 2004 and 2008. However, Kálmán (2011) concentrated exclusively on the local governments (municipalities or *helyi önkormányzatok*) both as project applicants and recipients of the grants and her binary dependent variable revealed merely whether a local government was able to secure funds for its own projects or not. Although her study did not reflect on the total amount of EU funding spent in a locality, her results are relevant in that she showed that the chances for receiving EU grants significantly increased if wealthier local governments submitted project applications. Moreover, she found that local political alignment with the central government was also positively associated with the likelihood of receiving grants. On the one hand, if the Member of Parliament (MP) representing the locality belonged to the governing coalition, then the local government's chances for receiving funds increased by 2 to 8 percent. On the other hand, the mayor's political affiliation with the socialist-liberal government was also positively associated with the likelihood of accessing the funds.

These findings suggest that similar to the Polish case, both the economic and the political logic of fund distribution have been present in Hungary in the second programming period. In order to test whether these effects have indeed determined the allocation of EU grants, a comprehensive database is used, which contains 63,696 funded projects that were contracted until June 2014. The total funding of these projects covers 95 percent of the entire Structural Funds budget available for Hungary in 2007-2013. This means that virtually all the EU-related spending of the programming period is analyzed. However, the change of government in 2010 complicates the picture in that the data have to be divided into a pre- and a post-election part to detect political influences on the allocation of grants. Accordingly, all the projects of which funding decisions (18,368 projects, 34.8 percent of the allocated funds) were taken before May 29, 2010 (the day when Prime Minister Viktor Orbán officially sworn into office) belong to the first set of data representing funds allocated during the socialist-liberal government, while the remaining ones (45,328 projects, 65.2 percent of the allocated funds) fall into the period of the Fidesz government. Like in the Polish case, the dependent variable is calculated as the total amount of EU support per capita spent within the borders of a local government (*helyi önkormányzat*).

Because several units remained without funding, it poses a further challenge for the analysis. During the term of the socialist government, in 43.7 percent of the localities (1377) not even a single EU-funded project was realized. In the period of the Fidesz government, the number of settlements not receiving any EU-related development support was 917 (29.1 percent). This means that the dependent variable contains a lot of zero values, or, in other words, it is censored. In this situation, ordinary least squares estimators would be biased and inconsistent. The Hungarian data thus requires a different estimation technique than the one applied in the Polish case. A possible but suboptimal solution to this problem would be to ignore those units that show a zero value on the outcome and consider only those local governments where some funds were actually spent. This would lose much of the information and cause a serious selection bias unless there are firm theoretical reasons for dropping the zeros.

However, this is not the case here. Although certain characteristics of the localities such as small population size or low local economic activity may increase the likelihood of not receiving funds at all, none of these features can be considered as absolute determinants of remaining without grants. In short, the zeros have to be modeled. At the same time, unlike in the case of determining the eligibility of NUTS 2 regions for EU funds (Bodenstein and

Kemmerling 2011), there is no mechanism that would first define the group of those localities that receive support and after that would allocate grants among the selected local governments. This means that the same probability mechanism determines whether a local government receives funds or not: the zeros and the positive values are unlikely to be generated by unrelated processes. To put it differently, in the highly fragmented Hungarian territorial system where each settlement constitutes a local government, the process of fund allocation inherently involves that some localities may be left without grants. This is the reason why the application of a selection model cannot be justified in this case.

In the current situation, the dependent variable is zero for a notable fraction of the local governments but it is continuously distributed over the other values. Furthermore, all the characteristics of the units of analysis are known except for the outcome, which is zero for some of the localities. This type of censored or limited dependent variable is called a corner solution response, which can be conveniently modeled with the so-called Tobit regression (Tobin 1958; Wooldridge 2012). Tobit models can be considered as a combination of a continuous model (for the uncensored outcomes) and a probit model (for censored outcomes), which expresses the observed response ($y$) in terms of an underlying latent variable ($y^*$). The observed variable, $y$, equals $y^*$ when $y^* \geq 0$ but $y = 0$ when $y^* < 0$. Because $y^*$ is normally distributed, $y$ has a continuous distribution over strictly positive values (Wooldridge 2012 p. 597). Lastly, because the local governments are nested in regions, multi-level Tobit regressions are necessary to run in order to simultaneously estimate the local- and regional-level effects.[138]

Regarding the independent variables, both the local- and the regional-level socio-economic factors are similar to those considered in the Polish case. However, because the dependent variable distinguishes between grants awarded during the socialist and the conservative governments, the same distinction applies to the independent variables as well. For both periods, the socio-economic explanatories represent the situation in the year when the allocation of funds commenced in the respective government's term. Thus the base year of the socio-economic indicators is 2007 for funds awarded in the socialist period but it is 2010 for the grants decided during the conservative government. The local-level socio-economic characteristics include population size, the local government's per capita tax and own budget

[138] For a detailed discussion on the choice for multi-level Tobit models and alternative estimation techniques please consult Appendix A5.7.

revenue, private companies per thousand inhabitants, the level of unemployment and the presence of civil organizations[139], whereas the regional-level indicators are GDP per capita and unemployment levels. The quality of government index is not available for the Hungarian counties therefore it cannot be included in the models.[140]

As for the political variables, besides the local and the regional vote shares for the governing parties, additional factors need to be considered because the Hungarian political system differs from the Polish one. While Poland has a simple proportional representation where members of parliament are elected exclusively through party lists, Hungary, in contrast, has a mixed electoral system with both proportional and majoritarian elements. In the 2006 and 2010 parliamentary elections, 176 MPs were elected in single-member constituencies while 210 seats were allocated through territorial and national party lists. The role of the MPs who are elected in single-member districts is relevant here because they are more dependent on local support thus they tend to be more constituency-oriented relative to those who gain their mandate through party lists. This relationship has been empirically demonstrated in a variety of electoral systems (Heitshusen et al. 2005; Pilet et al. 2012) and as a recent analysis shows, it also applies to the Hungarian case (Papp 2013).

In this vein, a government-affiliated MP elected in a single-member district may engage in strong lobbying for its constituency and these efforts may positively influence the amount of EU funds spent in the localities which he or she represents. Because single-member districts cover several local governments, this dummy indicator does not strictly belong to the local level thus it is introduced as a regional-level factor.[141] However, it is considered only for the term of the socialist-liberal coalition because it does not show variation during the conservative government: Fidesz won 173 out of the 176 single-member districts in the 2010

[139] There were 244 local governments in 2007 and 196 in 2010 without any registered non-profit organizations. At the same time, the number of per capita NGOs in those localities where they were present are highly skewed to the right. Because of the many zeros, even a logarithmic transformation of the indicator produces a variable of which distribution strongly deviates from normality, which would be problematic for the estimations. This is the reason why instead of the number of NGOs per inhabitant, an alternative one, a dummy indicating the presence of registered non-profit organizations in the local governments is used for the models.

[140] Charron and her co-authors (2014) calculated the regional quality of government index only for Central, East- and West-Hungary.

[141] Besides the capital city of Budapest, the most populous towns in Hungary (Debrecen, Győr, Kaposvár, Kecskemét, Miskolc, Nyíregyháza, Pécs, Szeged, Székesfehérvár, Szolnok, Szombathely, Veszprém) incorporate more than one single-member district. In their case the dummy variable indicates whether at least in one of those districts a government-affiliated candidate won in the parliamentary elections. For instance, in 2006 all the three single-member districts in Debrecen were won by Fidesz candidates thus the dummy is coded as zero in this case. In contrast, in 2006 a socialist candidate was victorious in one of the two electoral districts in Győr thus the dummy is coded as one for this city.

elections. Nevertheless, political alignment between the local and the national level is expected to produce a positive effect on the grants in both periods. If both the mayor of the local government and the parliamentary representative of the electoral district to which the settlement belongs are affiliated with the governing parties, then this may facilitate the accumulation of funds in the locality.

In addition to the above indicators, further political variables need to be introduced because of the peculiarities of the Hungarian system. Unlike in Poland, MPs in Hungary have been allowed to undertake roles in local and regional administrations. In particular, serving both as an MP (irrespective of whether the mandate has been gained in a single-member district or through a party list) and as a mayor has been a common practice for many of the legislators.[142] Consequently, if the leader of a local government is also a member of the parliament, then this dual service may be associated with more development support spent in the locality. The political colour of the mayors (independent or affiliated with the governing or the opposition parties) may also affect the distribution of funds, thus this aspect as well has to be considered in the models. Finally, it is important to note that the capital city of Budapest was dropped from the observations because disaggregated data on EU spending is unavailable for the city's 23 districts, which are themselves also local governments. Keeping Budapest in the analysis would thus bias the results as the city serves both as a local government and a NUTS 3 region thus in this case it would be impossible to distinguish between the local and the regional level factors.

With respect to the dependent variable, it shows huge variation across those settlements where funds were actually spent. Among the 1774 localities where projects were funded during the period of the socialist government, the village of Csemő (county Pest) secured the lowest amount of grants with only 224 HUF (approximately 0.75 EUR) per inhabitant, while Tiszasüly (Jász-Nagykun-Szolnok) proved the most successful by accumulating 14.9 million HUF (nearly 50,000 EUR) of EU support per capita. As for the funds awarded during the term of the Fidesz government, out of the 2234 local governments that received grants, Galgagyörk, another locality in county Pest benefited the least with a total of 1103 HUF (about 3.7 EUR) per capita. The greatest beneficiary in this period was the village of Jánd (Szabolcs-Szatmár-Bereg) where the EU support per inhabitant reached 40.2 million HUF

[142] This practice was discontinued after the local elections in 2014 because the new electoral law does not allow the MPs to simultaneously fulfill roles in the local and regional administrations.

(about 134,000 EUR).[143] Because of the strong right-skew in the data, the positive values of the dependent variable were logarithmically transformed to normalize the distribution.[144] The same logarithmic transformation was applied to the indicators of local government revenue, private companies, population size and regional GDP. Furthermore, all the continuous explanatory variables were centred on the mean.

An inspection of the correlation matrices of the independent variables (Appendix A5.6) reveals that the indicators of local tax and own budget revenue are strongly associated with each other both in 2007 and in 2010. Because several local governments have missing values for tax revenue in 2007, in all the specifications the localities' own budget revenue per capita is used as a proxy for local wealth. Except for two cases, the other coefficients of the local-level variables do not show considerably strong correlation thus they can be simultaneously included into the models. The two exceptions refer to the same pair of variables in both periods: the association between the dummy representing a government-affiliated mayor and the dummy indicating that both the mayor and the parliamentary representative of the locality were affiliated with the government are strongly related to each other. These indicators are therefore used separately in the estimations. Lastly, because regional GDP and unemployment show a strong negative correlation, they are also treated separately in the models.

Table 5.2 displays the results of the multi-level Tobit models for the terms of the socialist (part I) and the conservative government (part II). The figures reveal a remarkably consistent impact of the local socio-economic factors. In all the specifications, the size of population, the density of private companies and the local governments' own budget revenue per capita are positively and significantly related to the funds. This suggests that if all else is the same, then on average the richer and the more populous localities and those that demonstrate greater economic activity accumulate more per capita grants than the poor and lowly-populated ones. These results are consistent with the findings of the Polish analysis and provide strong empirical evidence for the claim that universal targeting facilitates the economic logic of fund distribution. Under these circumstances, the underprivileged localities are unable to compete on equal terms with the more prosperous ones.



[143] Both in the lowly populated Jánd (815 souls in 2010) and Tiszasüly (1047 inhabitants in 2007) expensive flood prevention projects were carried out which considerably drove up the total value of the accumulated funds.
[144] For the histograms of the dependent variables for both periods, please consult Appendix A5.5.

Regarding the other local socio-economic factors, the absence of NGOs has a significant negative association with the dependent variable, which implies that per capita development spending is on average lower in those local governments that lack civil society organizations.[145] Because NGOs are typically (but not exclusively) absent in very small settlements,[146] this finding also suggest that more EU funds may accumulate in those places where there is at least some organized civil activity. The local level of unemployment is the only local economic factor of which association with the outcome complies with the declared goals of regional policy. However, the positive relationship between unemployment and EU funds applies only to the period of the socialist-liberal coalition because the significance of the variable disappears in the models that estimate the determinants of fund distribution during the Fidesz government.

Although most of the local socio-economic indicators have an impact on the dependent variable which is advantageous for the more developed localities, the regional-level indicators seem to draw financial transfers in the opposite direction. The effects of GDP per capita and regional unemployment, which are significant across all the models, fully correspond to what the EU policy-makers may wish to see: all else being equal, higher regional wealth is, on average, associated with lower funds per inhabitant spent in a locality. Similarly, holding all other conditions constant, the higher the level of regional unemployment, the more EU funds the locality may secure. To put it differently, if two local governments show exactly the same features, then on average more grants will be spent in that locality which is in a poorer region or in one that has a higher unemployment rate. This also implies that the regional and the local-level socio-economic factors pull funds in opposite directions.

But to what extent do the regional variables modify the effect of the local indicators? To find an answer to this question, Model 27 and 31 test the cross-level interaction between local government revenue and regional GDP. In both cases the interaction term is positive and significant. Figure 5.4 visualizes the marginal effect of GDP with local revenue on EU funds



[145] This finding is different from the one obtained in the Polish case. However, in a strict sense, the two variables are not comparable to each other because while the Hungarian measure of NGO presence is a simple binary indicator, the Polish one shows the number of registered non-profit organizations per inhabitants. In this respect, there is a qualitative difference between the two variables which may also explain the differences in the results.
[146] Being very small does not necessarily determine the presence or absence of NGOs in a locality. There was at least one registered non-profit organization in half of (57) the 115 local governments with less than 100 inhabitants in 2007. This share was somewhat lower in 2010: 50 out of 122 localities (41 %) with less than 100 inhabitants had at least one registered NGO.

**Table 5.2:**
**Results of the multilevel Tobit models for Hungary, part I (dependent variable: log of total EU funding per capita awarded in March 2007 – May 2010)**

| | Model 23 | | Model 24 | | Model 25 | | Model 26 | | Model 27 | | Model 28 | | Model 29 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **B** | **SE** | **B** | **SE** | **B** | **SE** | **B** | **SE** | **B** | **SE** | **B** | **SE** | **B** | **SE** |
| Constant | 4.091*** | .355 | 4.041*** | .354 | 3.940*** | .354 | 4.106*** | .350 | 4.059*** | .356 | 3.956*** | .350 | 4.017*** | .349 |
| *Local-level effects* | | | | | | | | | | | | | | |
| Population (2007) | 3.476*** | .162 | 3.493*** | .162 | 4.101*** | .184 | 3.499*** | .162 | 3.458*** | .162 | 4.129*** | .184 | 4.137*** | .184 |
| Own revenue (2007) | 1.198*** | .195 | 1.200*** | .195 | 1.227*** | .194 | 1.191*** | .195 | 1.204*** | .195 | 1.216*** | .194 | 1.216*** | .194 |
| Private companies (2007) | 1.523** | .350 | 1.531*** | .350 | 1.759*** | .351 | 1.469*** | .350 | 1.523*** | .350 | 1.706*** | .351 | 1.717*** | .350 |
| Unemployment (2007) | .066** | .029 | .065** | .029 | .075*** | .029 | .056* | .029 | .060** | .029 | .064** | .029 | .061** | .029 |
| No NGOs (2007) | -4.392*** | .793 | -4.365*** | .793 | -3.578*** | .794 | -4.385*** | .796 | -4.429*** | .795 | -3.570*** | .797 | -3.543*** | .797 |
| MSZP-SZDSZ vote share (2006) | -.009 | .015 | -.009 | .015 | -.013 | .015 | -.011 | .015 | -.008 | .015 | -.015 | .015 | -.015 | .015 |
| Government mayor (2006) | -1.475** | .671 | | | 1.425 | .888 | -1.288* | .672 | -1.458** | .671 | 1.389 | .887 | 1.395 | .887 |
| Opposition mayor (2006) | -1.265** | .546 | -1.298** | .545 | .960 | .676 | -1.441*** | .549 | -1.266** | .546 | .918 | .674 | .920 | .674 |
| Mayor also government MP (2006) | -1.464 | 1.490 | -1.417 | 1.489 | -1.181 | 1.474 | -1.517 | 1.489 | -1.526 | 1.491 | -1.270 | 1.473 | -1.266 | 1.473 |
| Mayor also opposition MP (2006) | -.809 | 1.326 | -.733 | 1.326 | -.677 | 1.318 | -.951 | 1.327 | -.848 | 1.326 | -.839 | 1.319 | -.841 | 1.319 |
| Government mayor and MP (2006) | | | -2.239** | .798 | | | | | | | | | | |
| *Regional-level effects* | | | | | | | | | | | | | | |
| GDP per capita (2007) | -3.538** | 1.425 | -3.577** | 1.423 | -3.408** | 1.414 | -3.328*** | 1.402 | -3.958*** | 1.445 | -3.195** | 1.397 | | |
| Regional unemployment (2007) | | | | | | | | | | | | | .231** | .100 |
| Government vote share (2006) | .187** | .072 | .185** | .072 | .171** | .071 | .205*** | .071 | .181** | .072 | .190*** | .071 | .173** | .071 |
| MSZP-SZDSZ MP (2006) | -.139 | .358 | -.020 | .360 | .024 | .357 | -.111 | .357 | -.162 | .358 | .046 | .356 | .042 | .356 |
| *Interaction effects* | | | | | | | | | | | | | | |
| Population * government mayor | | | | | -2.408*** | .430 | | | | | -2.271*** | .431 | -2.276*** | .431 |
| Population * opposition mayor | | | | | -2.053*** | .339 | | | | | -2.144*** | .340 | -2.152*** | .340 |
| Population * government vote share | | | | | | | -.088*** | .027 | | | -.090*** | .027 | -.089*** | .027 |
| Own revenue * GDP | | | | | | | | | 1.578* | .843 | | | | |
| *Random effects* | | | | | | | | | | | | | | |
| Sigma_u (random intercept SD) | 1.143*** | .232 | 1.140*** | .232 | 1.134*** | .229 | 1.116*** | .228 | 1.145*** | .232 | 1.113*** | .226 | 1.099*** | .228 |
| Sigma_e (overall SD) | 7.094*** | .134 | 7.090*** | .134 | 7.033*** | .133 | 7.085*** | .134 | 7.091*** | .134 | 7.023*** | .132 | 7.024*** | .132 |
| Rho | .025 | .010 | .025 | .010 | .025 | .010 | .024 | .010 | .025 | .010 | .025 | .010 | .024 | .010 |
| N (uncensored) | 3135 (1767) | | 3135 (1767) | | 3135 (1767) | | 3135 (1767) | | 3135 (1767) | | 3135 (1767) | | 3135 (1767) | |
| -2Log likelihood | -13783 | | -13780 | | -13726 | | -13772 | | -13779 | | -13715 | | -13715 | |
| Wald Chi-square | 1052.3*** | | 1055.2*** | | 1092.6*** | | 1057.6*** | | 1054.1*** | | 1095.7*** | | 1097.2*** | |

Unstandardized coefficients. * p < .1; ** p < .05; *** p < .01

**Table 5.2 (cont.):**
**Results of the multilevel Tobit models for Hungary, part II (dependent variable: log of total EU funding per capita awarded after May 2010)**

| | Model 30 | | Model 31 | | Model 32 | | Model 33 | | Model 34 | | Model 35 | | Model 36 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **B** | **SE** | **B** | **SE** | **B** | **SE** | **B** | **SE** | **B** | **SE** | **B** | **SE** | **B** | **SE** |
| Constant | 7.333*** | .275 | 7.280*** | .264 | 7.327*** | .268 | 7.325*** | .278 | 7.456*** | .224 | 7.450*** | .220 | 7.519*** | .169 |
| *Local-level effects* | | | | | | | | | | | | | | |
| Population (2010) | 2.229*** | .122 | 2.210*** | .122 | 2.623*** | .139 | 2.345*** | .125 | 2.316*** | .121 | 2.725*** | .138 | 2.745*** | .135 |
| Own revenue (2010) | 1.596*** | .146 | 1.601*** | .146 | 1.619*** | .146 | 1.588*** | .146 | 1.515*** | .146 | 1.526*** | .145 | 1.509*** | .145 |
| Private companies (2010) | .544** | .267 | .571** | .266 | .591** | .266 | .579** | .267 | .548** | .263 | .606** | .261 | .518** | .256 |
| Unemployment (2010) | -.014 | .021 | -.022 | .021 | -.012 | .021 | -.011 | .021 | -.011 | .020 | -.006 | .020 | -.022 | .020 |
| No NGOs (2010) | -2.580*** | .568 | -2.596*** | .567 | -2.188*** | .569 | -2.410*** | .566 | -2.365*** | .568 | -1.907*** | .569 | -1.901*** | .567 |
| FIDESZ vote share (2010) | .004 | .013 | .003 | .013 | .000 | .013 | .001 | .013 | .001 | .012 | -.004 | .012 | -.001 | .012 |
| Government mayor (2010) | .085 | .312 | .063 | .311 | .658** | .329 | .019 | .311 | .048 | .310 | .452 | .331 | .425 | .331 |
| Opposition mayor (2010) | -.744 | .862 | -.665 | .860 | .817 | 1.024 | -.875 | .859 | -.453 | .857 | .735 | 1.016 | .784 | 1.016 |
| Mayor also government MP (2010) | -2.301*** | .782 | -2.313*** | .781 | -.868 | .829 | 3.546** | 1.441 | -2.485*** | .778 | 3.381** | 1.433 | 3.352** | 1.432 |
| *Regional-level effects* | | | | | | | | | | | | | | |
| GDP per capita (2010) | -3.860** | 1.314 | -4.413*** | 1.270 | -3.701*** | 1.280 | -3.746*** | 1.330 | -3.452*** | 1.072 | -3.231*** | 1.051 | | |
| Regional unemployment (2010) | | | | | | | | | | | | | .315*** | .058 |
| Government vote share (2010) | -.154** | .061 | -.146** | .058 | -.143** | .059 | -.145** | .062 | -.177*** | .049 | -.162*** | .048 | -.143*** | .038 |
| *Interaction effects* | | | | | | | | | | | | | | |
| Population * government mayor | | | | | -1.180*** | .218 | | | | | -.943*** | .229 | -.941*** | .229 |
| Population * opposition mayor | | | | | -1.848*** | .545 | | | | | -1.516*** | .543 | -1.574*** | .542 |
| Population * government vote share | | | | | | | | | .133*** | .019 | .136*** | .019 | .135*** | .019 |
| Population * mayor also gvt. MP | | | | | | | -2.315*** | .481 | | | -1.871*** | .505 | -1.879*** | .504 |
| Own revenue * GDP | | | 2.571*** | .629 | | | | | | | | | | |
| *Random effects* | | | | | | | | | | | | | | |
| Sigma_u (random intercept SD) | 1.029*** | .216 | .975*** | .209 | .995*** | .212 | 1.048*** | .219 | .765*** | .188 | .743*** | .187 | .450*** | .167 |
| Sigma_e (overall SD) | 5.875*** | .096 | 5.863*** | .096 | 5.845*** | .095 | 5.852*** | .096 | 5.843*** | .095 | 5.799*** | .095 | 5.798*** | .095 |
| Rho | .030 | .012 | .027 | .011 | .028 | .012 | .031 | .013 | .017 | .008 | .016 | .008 | .006 | .004 |
| N (uncensored) | 3151 (2234) | | 3151 (2234) | | 3151 (2234) | | 3151 (2234) | | 3151 (2234) | | 3151 (2234) | | 3151 (2234) | |
| -2Log likelihood | -15911 | | -15894 | | -15874 | | -15888 | | -15864 | | -15814 | | -15803 | |
| Wald Chi-square | 1027.4*** | | 1048.4*** | | 1064.4*** | | 1050.0*** | | 1111.5*** | | 1163.5*** | | 1274.2*** | |

Unstandardized coefficients. * p < .1; ** p < .05; *** p < .01

awarded during the term of the socialist-liberal and the conservative government, while holding all other variables constant. The marginal effect of GDP with local government revenue is calculated for a relatively rich and a relatively poor region. The graph shows that regional wealth indeed modifies the effect of local government revenue on EU funds and this impact is somewhat stronger in the second period. Yet, it still does not change the essentially positive association between local revenues and the dependent variable. To put it differently, if all else is equal, within a single region those localities are likely to secure less development support where the own revenue of the local government is lower regardless of how rich the region is.

However, the disparity in per capita grants between the rich and the poor localities is smaller in the less than in the more affluent region. The difference in the slopes reflects this impact. The dashed lines, which represent the 95 percent confidence intervals, also reveal that the significance of the effect of GDP disappears if local government revenue exceeds the logarithmic average represented by the zero on the horizontal axis.[147] In sum, the negative relationship of regional wealth with the funds compensates for the effect of local government revenue only in the case of relatively poor localities: among two equally poor settlements, on average, more EU funds will be spent in that one which is located in the more backward region, if all other factors are held constant.[148] This implies that on the one hand, the regional economic factors do not eliminate the effects of the local socio-economic characteristics that seem to contribute to rising intraregional disparities. On the other hand, they are only moderately able to mitigate the rise in overall regional disparities, which also follows from the impact of the local socio-economic factors.

The association of the political variables with EU funds further refines the above picture. Although neither the local vote share of the governing parties nor the election of a government-affiliated MP in the single-member districts in 2006 show any relationship with the outcome, the political colour of the mayors and the regional vote share of the governing parties do matter. Interestingly, the degree of regional support for the MSZP-SZDSZ coalition and the Fidesz government trigger opposite effects on the distribution of funds.



[147] The logarithmic mean of total own local government revenue per capita corresponds to 18 282 HUF (about 61 EUR) in 2007 and to 21 640 HUF (about 72 EUR) in 2010.
[148] Similar graphs are obtained if the interaction effects between population size and GDP or own revenue/population size and regional unemployment are calculated (those models are not reported here).

**Figure 5.4 (Part I): Marginal effect of regional GDP per capita with own local government revenue on funds awarded during the MSZP-SZDSZ government (Model 27)**

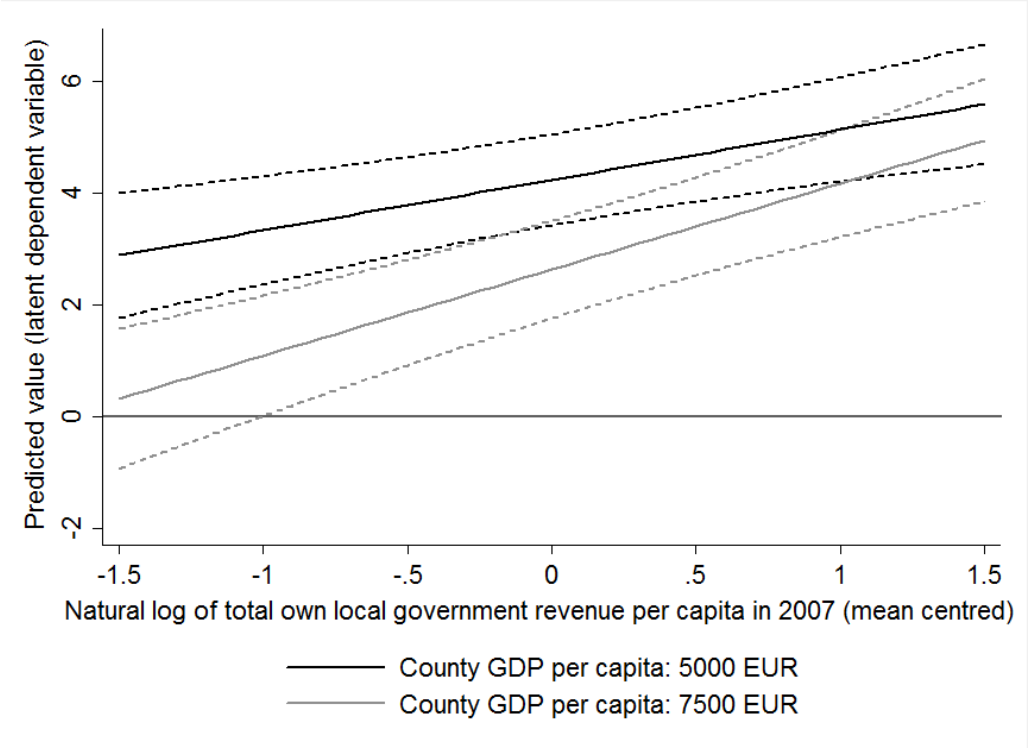
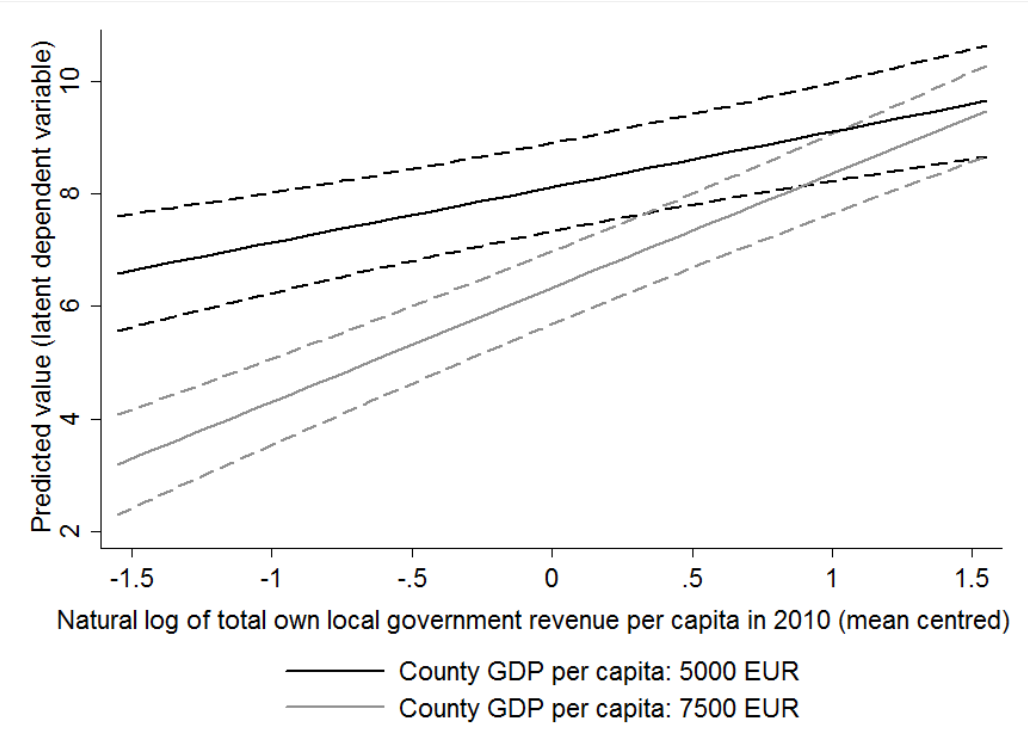



**Figure 5.4 (Part II): Marginal effect of regional GDP per capita with own local government revenue on funds awarded during the Fidesz government (Model 31)**



While *ceteris paribus* a higher regional vote share of the socialist-liberal government is associated with more development grants spent in the localities, the relationship is negative in the case of regional support for Fidesz. This suggests that the left-wing government rewarded the more loyal counties with funds whereas the conservative party steered financial transfers to those regions where its support was somewhat lower.

Because of the different political circumstances during the two parliamentary cycles, both strategies seem to be rational. In 2006-2010 the socialist-liberal coalition faced a powerful opposition of which popularity was rising. According to the models, in this situation the government adopted a defensive approach and attempted to maintain its support in its relative strongholds by pumping slightly more development funds to those regions. However, the 2010 parliamentary elections brought a demolishing defeat for the incumbents and Fidesz emerged as the absolute dominant party. The lowest regional vote share that Fidesz reached in 2010 was 45.95 percent (in county Heves) which is still far above the best result of the socialists (25.42 percent in Budapest) that finished runner-up. According to the model estimates, in these conditions the Fidesz government chose to drove funds where its popularity was relatively low, which can be considered as an attempt to increase its support in those places. These political effects are significant in all the specifications and independent from the socio-economic characteristics of the regions.

Models 26 and 34 test the cross-level interaction effects between population size and the governing parties' regional vote shares. Figure 5.5 visualizes these marginal effects for two hypothetical regions in which the popularity of the governments substantially differ. The graphs reveal that regional vote shares moderated the effect of population size only in the less populous local governments.[149] In the case of the socialist-liberal coalition this impact manifested in that small settlements on average had a higher chance of receiving funds if they were located in counties where the government was more popular, holding all else constant.



[149] It is important to note that the predicted values refer to the uncensored latent variable and not to the observed outcome: when the prediction equals to or is smaller than zero then the local government is likely to remain without development support, whereas positive predicted values stand for the expected amount of per capita funds spent in the corresponding locality. In the example displayed in Figure 5.5, by transforming the logarithmic population values back to the original scale and considering the 95 percent confidence intervals represented by the dashed lines, the figures show that in the region where the socialist-liberal coalition reached 55 percent at the parliamentary elections, settlements above 264 inhabitants were likely to secure EU grants, while in the county with 45 percent vote share this threshold was higher, around 560 inhabitants. The confidence intervals begin to overlap around the logarithmic mean, which corresponds to 921 inhabitants. During the term of the Fidesz government, the regional political effect disappears beyond the population size of 1165.

**Figure 5.5 (Part I): Marginal effect of MSZP-SZDSZ regional vote share with population size on EU funds awarded between March 2007 and May 2010 (Model 26)**

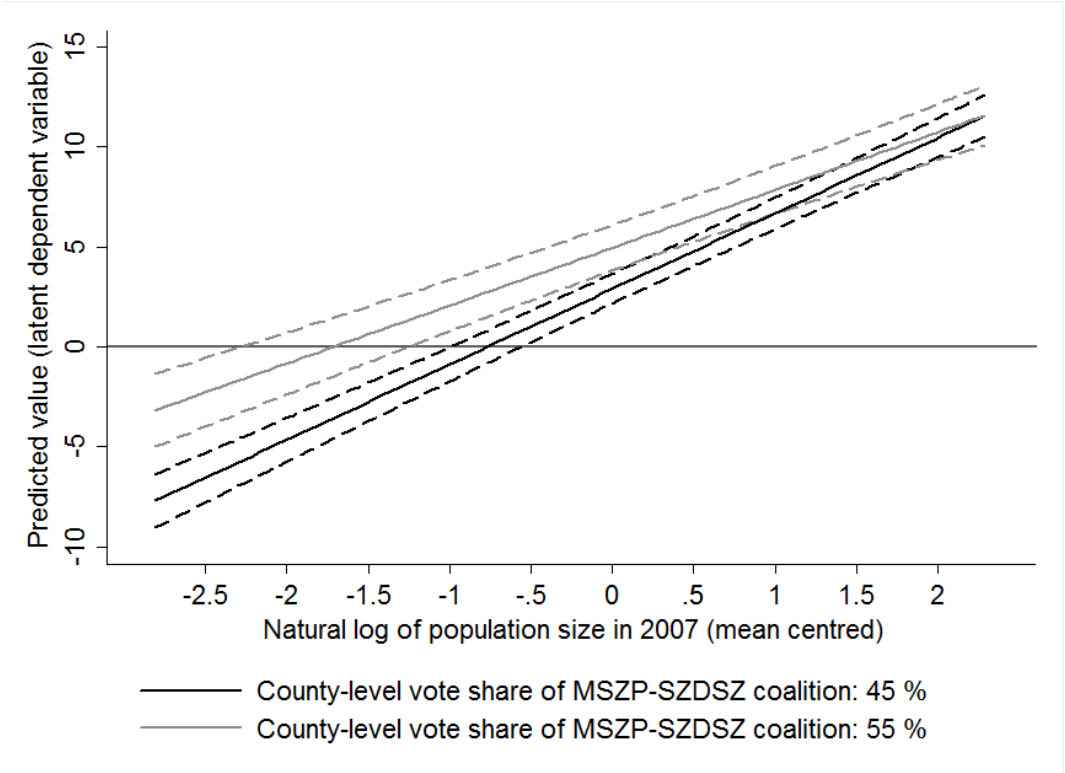
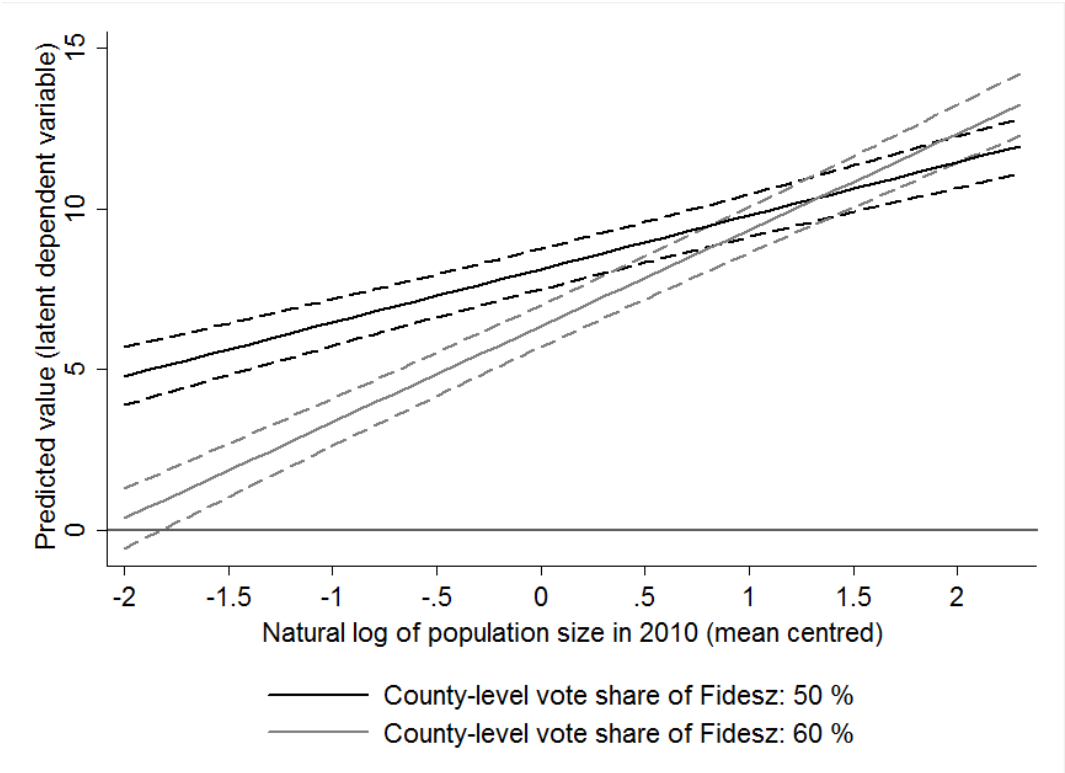



**Figure 5.5 (Part II): Marginal effect of Fidesz regional vote share with population size on EU funds awarded after May 2010 (Model 34)**



In contrast, during the term of the Fidesz government, more funds were spent in those small local governments that belonged to counties where the governing party reached lower vote shares, all else being equal. Considering the fact that relative to large settlements, the less populous ones possess fewer capabilities for securing funds, it is not surprising that the regional political factor had a greater impact in them.

The other political variables that had a significant influence on the distribution of funds are the mayors' political affiliation and, during the term of the conservative government, the parliamentary presence of government-affiliated leaders of the localities. At first sight it seems puzzling that the dummies show a uniformly negative sign in those models that estimate only their main effects. The reasons for these counterintuitive results are the following. On the one hand, as population increases especially from a very low initial level, the chance for a local government to secure grants also rises.[150] This is reflected in the significant positive coefficient for population size. At the same time, the vast majority of the most populous localities, which are predicted to have the highest amount of per capita EU grants (if all other conditions are constant), also have mayors with party affiliation.[151] This is because political significance of a place grows with the size of population. However, in both periods the top beneficiaries of the funds typically were small and middle-sized settlements that also tended to have independent mayors.[152] To put it differently, the concentration of party-affiliated mayors in the settlements with the highest per capita grants is relatively low while it is high in the most populous localities of which grant performance may not place all of them among the top. Thus after controlling for the positive effect of population in the models, without introducing appropriate interaction terms the inclusion of the local leaders' partisanship produces a negative sign.

The interaction effect between the mayors' party-affiliation and the population size of the localities reveal whether the local leaders' partisanship modifies the impact of population on

[150] The average population size of the 1377 localities which remained without EU funds during the socialist-liberal government was 571. During the term of the Fidesz government 917 settlements did not receive any EU grants and their average population size was 437.
[151] In the 2006 local elections 71.5 percent of the 200 most populous localities elected a partisan mayor. The same share for the 2010 local elections was 72 percent.
[152] 85 percent of the top 200 localities which in per capita terms were the greatest beneficiaries of the EU grants during the socialist-liberal government had less than 5000 inhabitants. At the same time, 80.5 percent of these 200 settlements elected an independent mayor in 2006. Regarding the term of the Fidesz government, less than 5000 people lived in 87.5 percent of the 200 settlements with the highest per capita EU funds spent after May 2010. In the 2010 local elections, a non-partisan mayor was elected in 71 percent of these top 200 localities.

EU funds. The significant interaction terms (Model 25 and 32) show that compared to the reference category, which is the localities with independent mayors, the presence of a party-affiliated mayor changes the association between population size and the dependent variable. More specifically, partisanship of local leaders decreases the effect of population on EU funds, which for small settlements results in more per capita grants relative to those localities where independent mayors are elected. This relationship is portrayed in Figure 5.6, which shows the difference between the predicted values for each group of localities while all other variables are held constant. The graphs demonstrate that all else being equal, in both periods the presence of either a government- or opposition-affiliated mayor in small settlements resulted in significantly higher per capita EU funds compared to localities of the same size with non-partisan leaders.

The 95 percent confidence intervals (the dashed lines) also show that in the term of the left-wing coalition the difference in the predicted values relative to the reference group was almost the same both in the case of government- and opposition-affiliated mayors. However, during the Fidesz government the intervals are much larger for the mayors associated with the opposition, which implies greater uncertainty in the predictions. This is caused by the fact that in 2010 only few settlements elected mayors that had been nominated by one of the opposition parties. These interaction effects reveal an important, yet so far unexplored aspect of the distribution of EU funds: the partisanship of the mayors matters especially for small settlements in that it increases their chances for securing development support. This is not too surprising though because in localities with a low number of inhabitants it is the local government that is most likely to be capable of preparing project applications. In those circumstances, in an attempt to mobilize support for the projects, a partisan mayor may take advantage of a broad political network to which his or her party provides access. A similar resource is presumably unavailable for non-partisan local leaders.

The interaction effect between population size and Fidesz mayors who were also members of parliament reinforces the above considerations. The parliamentary presence of local leaders gained greater significance during the term of the conservative government because Fidesz won virtually all of the single-member districts and secured the position of local leadership in nearly one-fifth of the country's local governments. This also involved heightened competition for resources within the party and among its elected representatives.

**Figure 5.6 (Part I): Contrasts of predictive margins of the mayors' party affiliation (2006) during the MSZP-SZDSZ government (Model 25)**

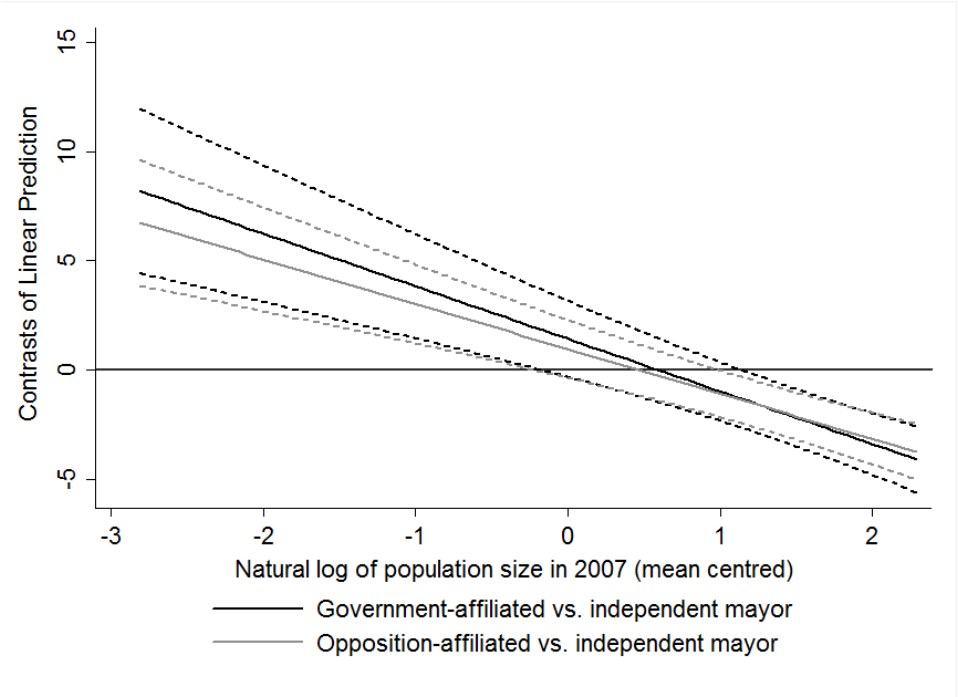
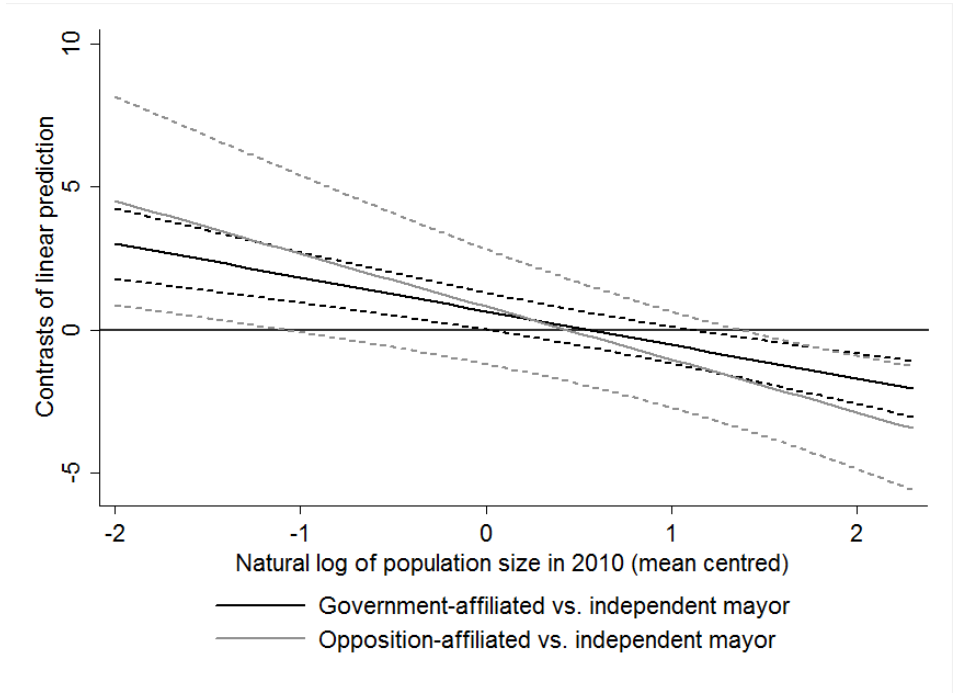



**Figure 5.6 (Part II): Contrasts of predictive margins of the mayors' party affiliation (2010) during the Fidesz government (Model 32)**



In terms of lobbying opportunities, holding a place in the parliament provided great advantages for mayors. In Model 33 the significant interaction term between population and government-affiliated mayors who were also MPs shows a similar impact on the effect of settlement size as it was the case with partisan mayors. In this model the reference category is constituted by those localities that did not have a government-affiliated mayor or even if they did, their local leader was not a member of parliament. This shows that for small settlements the parliamentary presence of the mayor that belonged to the right-wing governing party was associated with additional advantages over other localities. Furthermore, after the inclusion of the interaction term, the main effect of the dummy became positive and significant. This means that while holding all other variables constant, the presence of a Fidesz mayor who also served as an MP, on average, increased the amount of per capita EU grants.

In models 28, 29, 35 and 36, which also offer the best fit to the data according to the values of the log likelihood, all the interaction terms between the local and the regional political variables and the settlements' population size were included simultaneously. In spite of this, each interaction effect remained significant and kept its original sign as well, which was also the case with the main effects of the indicators. This increases the robustness of the findings and suggests that the estimates are consistent across all the specifications.[153]

Overall, the spatial distribution of funds suggests that EU grants have decreased territorial inequalities only to a limited extent, if at all. In the entire 2007-2013 programming period 951 settlements received some development support in the six poorest counties, which, on average, amounted to 618,000 HUF (2060 EUR) per capita. In contrast, the mean funds per inhabitant reached 491,000 HUF (1637 EUR) in the other 1471 local governments where EU funds were spent. In statistical terms, the difference between the means of these two groups is only marginally significant.[154] This does not suggest that the regions with the greatest need for development grants enjoyed clear advantages over the more advanced areas.[155]



[153] The models are not sensitive to changes in quadrature points. Refitting the models with a set of different quadrature points led to a maximum relative difference of 0.0001 percent in the coefficients, which is well below the accepted threshold of 0.01 percent.
[154] Assuming equal variances across the two groups, the independent samples t-test is significant at the 90 percent confidence level: $t(2420) = 1.948$, $p < .1$.
[155] The distribution of EU funds across the settlements located in the six most backward counties and in the rest of the country is visually displayed in Appendix A5.2.

All things considered, the Hungarian case provides evidence that both the economic and the political logic of fund distribution simultaneously appear at the local and the regional level and may draw funds into opposite directions. While the effects of the local socio-economic factors contribute to rising disparities, the regional-level socio-economic variables weaken their impact but only to a limited extent. The local and the regional political influences are stronger in the less than in the more populous settlements. Whereas partisan ties of local government leaders are associated with more EU funds, the effect of the regional political factor depends on the strategy of the governing parties. The left-wing coalition rewarded the politically loyal regions while the conservative government used the transfers to gain votes in those counties where its popularity was relatively low.

## 5.5 Conclusion

This chapter has sought to identify those factors that influence the spatial distribution of EU funds in the Visegrad countries. The empirical evidence presented here has substantiated most of the assumptions that had been put forward in the previous chapter. First, the co-financing requirement together with the universal targeting of funds, which does not distinguish between the relatively more advanced and the lagging regions, were expected to generate a competition among unequals that would cause disparity in the spatial distribution of the grants, which would be mostly beneficial for the wealthier regions and localities. The regional-level analysis showed that in both programming periods some of the most prosperous areas were indeed the greatest beneficiaries of the funds. In addition, the Polish and the Hungarian cases revealed that at the local level the economic logic strongly determined the distribution of funds: the wealthier and the economically more advanced localities were likely to secure more development support.

However, the modeling exercises also showed that although to a limited extent, both in Poland and Hungary the regional socio-economic conditions mitigated the effects of the local circumstances. As a consequence, local and regional factors were drawing funds into opposite directions which involved that the financial transfers did not show a high degree of spatial concentration either in the most backward or in the most prosperous areas. Nevertheless, the findings suggest that the grants may have increased intra-regional disparities but at the same time they did not reduce inter-regional inequalities.

In addition to the economic factors, political influences have also shaped the distribution of EU funds. This is in line with the expectation that uniform eligibility of the regions together with the centralized fund management systems may give rise to political manipulation of the grants. The Polish and the Hungarian data provided strong evidence for these claims. In both countries loyalty towards the central government (in Poland towards the major coalition party) resulted in greater development support per capita at the local level. Unlike in Poland, a regional political effect also emerged in Hungary but its direction depended on whether a left-wing or a right-wing government was in power. While the socialist-liberal coalition rewarded the politically more loyal regions with EU funds, the conservative government steered support to those areas where its popularity was relatively low.

In sum, both the regional and the local-level analyses have provided vast empirical evidence for the expectation that within the current domestic institutional frameworks the Structural Funds may not serve the needs of the most backward areas or, to put it differently, it is doubtful whether they really contribute to the decrease in regional disparities. However, the figures do not suggest either that the development poles received absolute priority. Consequently, EU grants in the V4 lack a clear focus because they neither promote internal nor external convergence. Instead, the funds seem to be treated as an entitlement offered by EU membership: they serve as guaranteed financial benefits from which nearly every actor receives its share. However, the proportions are determined through a complex mechanism shaped by several economic and political factors.

The empirical investigation assumed that more funds spent in a locality would produce greater development effects. It follows from this assumption that a concentration of the financial transfers in the most backward locations may facilitate their catch-up with the more advanced areas. Such a direct association between the grants and their developmental consequences is debated, especially because not only the amount of assistance but also the quality of the funded projects determines their impact on growth. However, it has been demonstrated in the old member states that efficiency of spending is inversely related to the level of development: funds are more likely to be mismanaged in the poorer than in the richer areas. If this holds also in the context of the eastern European countries, then the findings presented in this chapter are likely to under- rather than overestimate how Structural Funds have contributed to rising regional disparities.

# CONCLUSION: REGULATORY CONVERGENCE MEETS TERRITORIAL DIVERGENCE

Although regional disparities are natural attributes of capitalist economies, high or persistently widening development gaps cause concerns for policy-makers and academics alike. Especially the social consequences of growing inequality (spatial concentration of poverty, unemployment, and outmigration) generate debates about how to address the sources of uneven development. In the long run, economic disparities may also lead to political unrest and trigger the radicalization of the citizens living in backward areas. The European Union, which integrates domestic markets by allowing for the free movement of goods, capital, labour and services, may amplify these effects. This explains why territorial divergence has climbed among the top issues of the European political agenda. However, this work has demonstrated that transnational regulations aiming at decreasing regional disparities may constitute part of the problem instead of the solution.

The EU's regulatory influence affects almost every single policy field in the member states. From the perspective of territorial disparities, investment policy and regional development policy are those areas which have the greatest direct impact on regional economies. This is the reason why the EU has adopted comprehensive measures in both policies with the purpose of lowering spatial inequality within and across the member states. Yet, the presence of certain domestic economic and political circumstances may interfere with the intention of transnational policy-makers: convergence on transnational regulations may produce unintended side-effects that contradict the original policy objectives.

This work has argued that contrary to common expectations, regulatory convergence on the EU's investment and regional development policies has contributed to the rise in regional disparities in East Central Europe. To put it differently, measures that were believed to create a balance against the spatially divisive economic forces of capitalism have reinforced rather than mitigated them. The four country cases, which read as four stories of transnational regulatory integration with different initial conditions but similar outcomes, have supplied ample empirical evidence for this argument. In each Visegrad state, the adoption and

implementation of EU rules in investment and regional development policy placed backward regions into a disadvantageous position.

However, instead of blaming solely the transnational regulations for the unintended consequences, this work has also emphasized the role of some key structural characteristics and the complex interactions between domestic and transnational actors in determining the outcome. More specifically, in the case of investment policy, the transnational companies, central governments and the EU have jointly contributed to the concentration of subsidized foreign investments in more developed areas, which reinforced existing disparities. With respect to regional development policy, the EU's changing and rather controversial expectations have supplied incumbents with sufficient latitude to allocate external development funds according to political considerations which did not necessarily assist the lagging behind territories. In addition, the eligibility criteria of EU grants also allowed for an economic logic to prevail which favoured the richer regions and localities in securing the funds.

Regulatory integration involved similar mechanisms in both policy fields. In fact, the same dynamics have characterized both investment and regional development policy. During the 1990s, when the EU's influence on East Central Europe was relatively modest, the attitude of the Visegrad governments towards foreign investors and the promotion of lagging behind regions varied to a great extent. Because of the accession process, the EU gained greater leverage over these countries by the end of the 1990s and it also managed to subsequently transform the domestic approaches. Investment policies in those states which had been reluctant to open up their economies to foreign investors experienced a dramatic shift: attracting foreign capital has become a key element of the V4's (and other ECE countries) macroeconomic strategies. Similar changes occurred to regional policy: while in the 1990s few domestic resources were allocated for this purpose – although they mostly targeted the least advanced regions –, the inflow of EU funds has lifted the political profile of the policy which also involved the creation of a sizable central-level bureaucracy to administer and manage the funds.

In both policy fields regulatory convergence entailed the application of uniform rules which were determined at the transnational level. On the one hand, the EU-imposed regional state aid ceilings, which aimed to enhance investment activity in backward areas, did not

sufficiently differentiate between the most and the least prosperous Visegrad regions. This implied that foreign companies were able to realize nearly the same fiscal and financial benefits regardless of the location of their investments. In the end, the intensifying investment competition across the V4 placed transnational investors into a superior bargaining position relative to central governments. This ensured that most of the subsidized new investments have been realized in the more developed regions, which is diametrically opposite to what the EU intended to achieve with the introduction of regional state aid ceilings.

On the other hand, the EU determined the fund eligibility of the Visegrad (as well as other ECE) regions by comparing their level of development to that of the EU average. This procedure involved that except for three territorial units, all the V4 regions qualified as backward regardless of their relative domestic developmental position. Consequently, they became eligible for the highest level of support. This resulted in a peculiar situation where the same rules applied to both the richest and the poorest regions and localities which were competing for the same funds. The level playing field proved advantageous for the more prosperous places which possessed greater own resources and higher fund absorption capacity. At the same time, the EU's concerns about weak sub-national administrative capacities in the new member states passed the primary decision-making authority for fund allocation to the hands of central governments which took advantage of this: to a great extent, the distribution of funds have served political interests instead of benefiting the truly backward areas.

What were the consequences of the above mechanisms for regional development? First and foremost, there is a substantial mismatch between the declared transnational policy objectives and reality. Neither investment nor regional policy has been able to realize the promotion of lagging behind areas while both policy fields have been subsumed to EU regulations. Although the introduction of regional state aid ceilings contained investment competition across ECE to a certain extent, it failed to prevent the concentration of new investments in the already privileged areas. In effect, enormous amounts of public resources have been pumped into the pockets of transnational companies to realize investments in an environment that offers huge cost advantages over Western European locations even without the provision of incentives.

In terms of their developmental effects, the EU's regional development funds are stuck between two rather contradictory goals of promoting the economic catch-up of ECE and the lowering of regional disparities within the new member states. Although the EU has recently expressed preference for enhancing regional and country-level competitiveness over equity, the current institutional arrangements serve neither of these objectives. In order to promote external convergence, the funds would have to concentrate in the most prosperous regions whereas to serve the goal of internal convergence, they would need to accumulate in the most backward locations. However, none of this is taking place: universal fund eligibility of ECE regions tends to increase intra-regional economic inequality while fails to reduce inter-regional development gaps. At the same time, EU funds do not show a clear pattern of concentration either in the more or the less developed regions.

One might argue that the above outcome does not contradict the EU's general objectives because the purpose of transnational regulatory integration is to promote both external and internal convergence in East Central Europe. To put it differently, from this perspective there is nothing unintended in the consequences of regulatory convergence on investment and regional development policy. Even if this assumption would be valid, European economic integration relies on the proposition that the creation of bigger markets leads to greater economic efficiency which also manifests in higher overall growth rates. In line with this, all the mainstream economic theories contend that this process leads to divergence in territorial development as economic activity will agglomerate in some privileged locations at the expense of others.

It follows that at least in principle European integration facilitates convergence across national economies but enhances spatial divergence within them. Therefore, there is no need for introducing additional measures in favour of country-level convergence because integration serves this outcome by design. Instead, taking counterweighing actions may be necessary in order to assist those regions that are likely to lose out on integration. This is exactly what the regional state aid ceilings and the EU's cohesion policy represents: their declared purpose is to serve internal convergence and to reduce regional disparities by constituting a counterbalancing element against the spatially divisive forces of marketization. In short, the empirical findings about the contribution of these measures to rising regional disparities indeed contradict the stated policy objectives and can be considered as a paradoxical outcome.

To what extent are the results of this research generalizable? The scope conditions refer to the East Central European members of the European Union, which, from an EU perspective are highly similar to each other in that they all lag behind the European standards in terms of economic development. This also involves that besides the Visegrad states, all the external regulatory influences discussed in this work apply equally to the other ECE countries as well. In fact, regional state aid ceilings and fund eligibility of the ECE regions have so far been identical to those introduced in the V4. Thus it needs to be assessed whether convergence on the same transnational rules have generated similar spatial consequences to the ones observed in the Visegrad countries.

While this line of inquiry requires further research, empirical evidence suggests that similar mechanisms have characterized the other ECE economies, too. It has already been well established that regional disparities have been rising in East Central Europe and the spatial concentration of foreign investments have been found to be one of the main drivers of this process. Although it is yet to be determined how investment promotion affected location choices of foreign investors outside the V4, recent empirical works have shown that regulatory convergence on the EU's regional development policy did not result in the reduction of territorial inequality: a similar political misuse of the funds and a generally low concern about the likely development effects of the projects characterize other ECE economies, too (Bloom and Petrova 2013; Ion 2014; Kule et al. 2011). This suggests that the findings of this research may also be applicable beyond the Visegrad countries.

Nevertheless, this work faces certain limitations. For instance, it did not account for the role of migration which is commonly considered as a major factor shaping regional economic trajectories. Before enlargement, inter-regional labour mobility was low in ECE thus the limited internal flow of migrants did not influence territorial disparities (Fidrmuc 2004). However, a recent analysis of labour migration from East Central Europe to Western Europe has convincingly demonstrated that propensity to migrate is inversely related to regional economic performance (Kureková 2011). In other words, outmigration from backward ECE regions is substantially greater than from the prosperous ones but so far it has not been analyzed how this process may affect internal regional disparities.

Moreover, the relocation of aided investments within East Central Europe or even further to the East is another phenomenon of which implications have not been discussed here although its significance may grow over the coming years. As ECE markets become saturated with foreign investments or their cost advantages begin to decline, the promotion of backward regions may come to the fore and provide a new impetus for attracting transnational companies into ECE. In a similar vein, this work has not accounted for the potential consequences of large infrastructural (especially transport) investments in lagging behind areas. On the one hand, they may enhance economic growth and lower internal disparities. On the other hand, they may also produce backwash effects in that improved transport connections offer easier access to the core regions thereby facilitating labour migration from the periphery to the center.

Finally, this work has treated regions as passive subjects of transnational regulatory convergence. The analysis has focused on the interactions of transnational and state-level actors and their subsequent impact on the sub-national units. Within this framework regions do not gain an active role although in the EU they are certainly taking part both in domestic and in transnational politics. Given this specific limitation of the current research, further inquiries should demonstrate how different regional coping strategies may succeed or fail within the European context of transnational regulatory integration. More specifically, future research has to determine the extent to which similar initial regional socio-economic conditions and similar external regulatory influences lead to different or similar regional pathways if regional economic strategies vary.

In spite of the above limitations, this work has sought to contribute to the understanding of how transnational regulatory convergence affects economic disparities within East Central Europe. In contrast to the dominant, mainstream approaches to regional development, this research has demonstrated why the interplay between transnational and domestic regulatory contexts is relevant for economic development and how under certain domestic political and economic conditions the application of uniform transnational rules may create unintended side-effects. In this respect, this work also reads as an account of policy failure or a critique of the uncritical implementation of externally determined policy measures. Having said that, the findings of this work may also inform transnational and domestic policy-makers who may wish to avoid further converging on divergence.

# References


Allen, D. (2005) 'Cohesion and the Structural Funds', In H. Wallace, W. Wallace, and M. Pollack (eds), *Policy-Making in the European Union*, (Oxford University Press).

Amin, A. (1999) 'An institutionalist perspective on regional economic development', *International Journal of Urban and Regional Research*, Vol. 23, No. 2, pp. 365–378.

Amin, A., and Thrift, N. (1994) 'Holding Down the Global', In A. Amin and N. Thrift (eds), *Globalization, institutions, and regional development in Europe*, (New York: Oxford University Press).

Antalóczy, K., and Sass, M. (2001) 'Greenfield Investments in Hungary: Are They Different from Privatization FDI?', *Transnational Corporations*, Vol. 10, No. 3, pp. 39–60.

Antalóczy, K., and Sass, M. (2003) 'Befektetésösztönzés és Magyarország csatlakozása az Európai Unióhoz', *Külgazdaság*, Vol. 47, No. 4, pp. 4–29.

Antalóczy, K., and Sass, M. (2005) 'A külföldi működőtőke-befektetések regionális elhelyezkedése és gazdasági hatásai Magyarországon', *Közgazdasági Szemle*, Vol. 52, pp. 494–520.

Appel, H. (2011) *Tax Politics in Eastern Europe: Globalization, Regional Integration and the Democratic Compromise*, (Ann Arbor: University of Michigan Press).

Bache, I., and Jones, R. (2000) 'Has EU Rgional Policy Empowered the Regions? A Study of Spain and the United Kingdom', *Regional & Federal Studies*, Vol. 10, No. 3, pp. 1–20.

Bachtler, J., and Downes, R. (1999) 'Regional policy in the transition countries: A comparative assessment', *European Planning Studies*, Vol. 7, No. 6, pp. 793–808.

Bachtler, J., and Downes, R. (2000) 'The Spatial Coverage of Regional Policy in Central and Eastern Europe', *European Urban and Regional Studies*, Vol. 7, No. 2, pp. 159–174.

Bachtler, J., Downes, R., and Gorzelak, G. (2000) 'Transition, Cohesion and Regional Policy in Central and Eastern Europe: Conclusions', In J. Bachtler, R. Downes, and G. Gorzelak (eds), *Transition, Cohesion and Regional Policy in Central and Eastern Europe*, (Aldershot: Ashgate).

Bachtler, J., and Gorzelak, G. (2007) 'Reforming EU Cohesion Policy. A Reappraisal of the Performance of the Structural Funds', *Policy Studies*, Vol. 28, No. 4, pp. 309–326.

Bachtler, J., and McMaster, I. (2007) 'EU cohesion policy and the role of the regions: investigating the influence of structural funds in the new member states', *Environment and Planning C: Government and Policy*, Vol. 26, No. 2, pp. 398–427.

Bachtler, J., Mendez, C., and Oraže, H. (2014) 'From Conditionality to Europeanization in Central and Eastern Europe: Administrative Performance and Capacity in Cohesion Policy', *European Planning Studies*, Vol. 22, No. 4, pp. 735–757.

Bachtler, J., and Wishlade, F. (2011) *Regional Policy in Europe: Divergent Trajectories? Annual Review of Regional Policy in Europe*, (European Regional Policy Research Consortium, University of Strathclyde).

Bailey, D., and De Propris, L. (2004) 'A Bridge Too Phare? EU Pre-Accession Aid and Capacity-Building in the Candidate Countries', *Journal of Common Market Studies*, Vol. 42, No. 1, pp. 77–98.

Baldwin, R., Francois, J., and Portes, R. (1997) 'The costs and benefits of eastern enlargement: the impact on the EU and central Europe', *Economic Policy*, Vol. 12, No. 24, pp. 125–176.

Bandelj, N. (2004) 'Negotiating Global, Regional, and National Forces: Foreign Investment in Slovenia', *East European Politics & Societies*, Vol. 18, No. 3, pp. 455–480.

Bandelj, N. (2008) *From communists to foreign capitalists: The social foundations of foreign direct investment in postsocialist Europe*, (Princeton University Press).

Bandelj, N. (2010) 'How EU Integration and Legacies Mattered for Foreign Direct Investment into Central and Eastern Europe', *Europe-Asia Studies*, Vol. 62, No. 3, pp. 481–501.

Bański, J. (2010) 'Dilemmas for Regional Development in the Concepts Seeking to Develop Poland's Spatial Structure', *Regional Studies*, Vol. 44, No. 5, pp. 535–549.

Barca, F. (2009) *An Agenda for a Reformed Cohesion Policy. A Place-Based Approach to Meeting European Union Challenges and Expectations*, (Independent Report prepared at the request of Danuta Hübner, Commissioner for Regional Policy).

Bartlett, D., and Seleny, A. (1998) 'The political enforcement of liberalism: Bargaining, institutions, and auto multinationals in Hungary', *International Studies Quarterly*, Vol. 42, No. 2, pp. 319–338.

Baun, M., and Marek, D. (2006) 'Regional Policy and Decentralization in the Czech Republic', *Regional and Federal Studies*, Vol. 16, No. 4, pp. 409–428.

Beblavy, M., and Marcincin, A. (eds) (2000) *Economic Policy in Slovakia 1990-1999*, (Bratislava: Institute for Economic and Social Reforms).

Begg, I. (2010) 'Cohesion or Confusion: A Policy Searching for Objectives', *Journal of European Integration*, Vol. 32, No. 1, pp. 77–96.

Bellak, C. (2004) 'The Impact of Enlargement on the Race for FDI', In L. Oxelheim and P. Gauri (eds), *European Union and the Race for Foreign Direct Investment in Europe*, (Amsterdam: Elsevier).

Berentsen, W. H. (1992) 'Regional Problems and Regional Planning in Central and Eastern Europe', *Tijdschrift voor Econ. en SOC. Geografie*, Vol. 83, No. 5, pp. 339–351.

Bevan, A., and Estrin, S. (2004) 'The determinants of foreign direct investment into European transition economies', *Journal of Comparative Economics*, Vol. 32, No. 4, pp. 775–787.

Bitušíková, A. (2002) 'Slovakia: An Anthropological Perspective on Identity and Regional Reform', *Regional and Federal Studies*, Vol. 12, No. 2, pp. 41–64.

Blauberger, M. (2009a) 'Compliance with rules of negative integration: European state aid control in the new member states', *Journal of European Public Policy*, Vol. 16, No. 7, pp. 1030–1046.

Blauberger, M. (2009b) 'Of 'Good' and 'Bad' Subsidies: European State Aid Control through Soft and Hard Law', *West European Politics*, Vol. 32, No. 4, pp. 719–737.

Blažek, J., and Boeckhout, S. (2000) 'Regional Policy in the Czech Republic and EU Accession', In J. Bachtler, R. Downes, and G. Gorzelak (eds), *Transition, Cohesion and Regional Policy in Central and Eastern Europe*, (Aldershot: Ashgate).

Blažek, J., and Kara, J. (1992) 'Regional policy in the Czech Republic in the period of transition', In G. Gorzelak and A. Kukliński (eds), *Dilemmas of Regional Policies in Eastern and Central Europe*, (Warsaw: European Institute for Regional and Local Development, University of Warsaw).

Bloom, S., and Petrova, V. (2013) 'National Subversion of Supranational Goals: 'Pork-Barrel' Politics and EU Regional Aid', *Europe-Asia Studies*, Vol. 65, No. 8, pp. 1599–1620.

Boarini, R., Johansson, Å., and D'Ercole, M. M. (2006) *Alternative Measures of Well-Being, Working Paper*, (Paris: OECD Economics Department).

Bochsler, D., and Szöcsik, E. (2013) 'The Forbidden Fruit of Federalism: Evidence from Romania and Slovakia', *West European Politics*, Vol. 36, No. 2, pp. 426–446.

Bodenstein, T., and Kemmerling, A. (2011) 'Ripples in a Rising Tide: Why Some EU Regions Receive More Structural Funds than Others', *European Integration Online Papers (EIoP)*, Vol. 16, No. Article 1.

Bohle, D. (2009) 'Race to the bottom? Transnational companies and reinforced competition in the enlarged European Union', In B. van Apeldoorn, J. Drahokoupil, and L. Horn (eds), *Contradictions and Limits of Neoliberal European Governance: from Lisbon to Lisbon*, (Basingstoke [England] ; New York: Palgrave-Macmillan).

Bohle, D., and Greskovits, B. (2001) 'Development Paths on Europe's Periphery: Hungary's and Poland's Return to Europe Compared', *Polish Sociological Review*, Vol. 33, No. 1, pp. 3–27.

Bohle, D., and Greskovits, B. (2007) 'Neoliberalism, embedded neoliberalism and neocorporatism: Towards transnational capitalism in Central-Eastern Europe', *West European Politics*, Vol. 30, No. 3, pp. 443–466.

Bohle, D., and Greskovits, B. (2012) *Capitalist Diversity on Europe's Periphery*, (Cornell University Press).

Bohle, D., and Husz, D. (2005) 'Whose Europe is it?', *Politique Européenne*, Vol. 15, No. 1, pp. 85–112.

Bornstein, M. (1997) 'Non-standard methods in the privatization strategies of the Czech Republic, Hungary and Poland', *Economics of Transition*, Vol. 5, No. 2, pp. 323–338.

Boschma, R., and Frenken, K. (2011) 'The emerging empirics of evolutionary economic geography', *Journal of Economic Geography*, Vol. 11, No. 2, pp. 295–307.

Bouvet, F., and Dall'erba, S. (2010) 'European Regional Structural Funds: How Large is the Influence of Politics on the Allocation Process?', *JCMS: Journal of Common Market Studies*, Vol. 48, No. 3, pp. 501–528.

Bradshaw, M. J. (2005) 'Foreign direct investment and economic transformation in Central and Eastern Europe', In D. Turnock (ed), *Foreign direct investment and regional development in East Central Europe and the former Soviet Union: a collection of essays in memory of Professor Francis "Frank" Carter*, (Ashgate Publishing, Ltd.).

Breuss, F. (2002) 'Benefits and dangers of EU enlargement', *Empirica*, Vol. 29, No. 3, pp. 245–274.

Brown, D. L., Greskovits, B., and Kulcsár, L. J. (2007) 'Leading sectors and leading regions: Economic restructuring and regional inequality in Hungary since 1990', *International Journal of Urban and Regional Research*, Vol. 31, No. 3, pp. 522–542.

Brusis, M. (2002) 'Between EU Requirements, Competitive Politics, and National Traditions: Re–creating Regions in the Accession Countries of Central and Eastern Europe', *Governance*, Vol. 15, No. 4, pp. 531–559.

Brusis, M. (2005) 'The Instrumental Use of European Union Conditionality: Regionalization in the Czech Republic and Slovakia', *East European Politics & Societies*, Vol. 19, No. 2, pp. 291–316.

Brusis, M. (2013) 'Party Strategies and Administrative-Territorial Reforms in Poland', *West European Politics*, Vol. 36, No. 2, pp. 405–425.

Bruszt, L. (2002) 'Making Markets and Eastern Enlargement: Diverging Convergence?', *West European Politics*, Vol. 25, No. 2, pp. 121–140.

Bruszt, L. (2008) 'Multi-Level Governance – The Eastern Versions Emerging Patterns of Regional Developmental Governance in the New Member States', *Regional and Federal Studies*, Vol. 18, No. 5, pp. 607–628.

Bruszt, L., and Greskovits, B. (2009) 'Transnationalization, Social Integration, and Capitalist Diversity in the East and the South', *Studies in Comparative International Development*, Vol. 44, No. 4, pp. 411–434.

Bruszt, L., and McDermott, G. A. (2012) 'Integrating rule takers: Transnational integration regimes shaping institutional change in emerging market democracies', *Review of International Political Economy*, Vol. 19, No. 5, pp. 742–778.

Bruszt, L., and McDermott, G. A. (2014) 'Introduction: The Governance of Transnational Regulatory Integration and Development', In L. Bruszt and G. A. McDermott (eds), *Leveling the Playing Field: Transnational Regulatory Integration and Development*, (Oxford University Press).

Bruszt, L., and Stark, D. (2003) 'Who counts?: Supranational Norms and Societal Needs', *East European Politics and Societies*, Vol. 17, pp. 74–84.

Burger, A., Jaklič, A., and Rojec, M. (2012) 'The Effectiveness of Investment Incentives: the Slovenian FDI Co-financing Grant Scheme', *Post-Communist Economies*, Vol. 24, No. 3, pp. 383–401.

Buzogány, Á., and Korkut, U. (2013) 'Administrative Reform and Regional Development Discourses in Hungary. Europeanisation Going NUTS?', *Europe-Asia Studies*, Vol. 65, No. 8, pp. 1555–1577.

Cameron, A. C., and Trivedi, P. K. (2009) *Microeconometrics Using Stata*, (College Station, Texas: Stata Press).

Capello, R. (2009) 'Space, growth and development', In R. Capello and P. Nijkamp (eds), *Handbook of Regional Growth and Development Theories*, (Cheltenham: Edward Elgar Publishing).

Cappelen, A., Castellacci, F., Fagerberg, J., and Verspagen, B. (2003) 'The Impact of EU Regional Support on Growth and Convergence in the European Union', *JCMS: Journal of Common Market Studies*, Vol. 41, No. 4, pp. 621–644.

Cartwright, A., and Bátory, A. (2012) 'Monitoring Committees in Cohesion Policy: Overseeing the Distribution of Structural Funds in Hungary and Slovakia', *Journal of European Integration*, Vol. 34, No. 4, pp. 323–340.

Cass, F. (2007) 'Attracting FDI to transition countries: the use of incentives and promotion agencies', *Transnational Corporations*, Vol. 16, No. 2, pp. 77–122.

Červený, M., and Andrle, A. (2000) 'Czech Republic', In J. Bachtler, R. Downes, and G. Gorzelak (eds), *Transition, Cohesion and Regional Policy in Central and Eastern Europe*, (Aldershot: Ashgate).

Charlton, A. (2003) *Incentive bidding for mobile Investment: Economic Consequences and Potential Responses*, (OECD Development Centre).

Charron, N., Dijkstra, L., and Lapuente, V. (2014) 'Regional Governance Matters: Quality of Government within European Union Member States', *Regional Studies*, Vol. 48, No. 1, pp. 68–90.

Chidlow, A., Salciuviene, L., and Young, S. (2009) 'Regional determinants of inward FDI distribution in Poland', *International Business Review*, Vol. 18, No. 2, pp. 119–133.

Cieślik, A. (2005) 'Regional characteristics and the location of foreign firms within Poland', *Applied Economics*, Vol. 37, No. 8, pp. 863–874.

Combes, P. P., Mayer, T., and Thisse, J. F. (2008) *Economic Geography: The Integration of Regions and Nations*, (Princeton University Press).

Crowley, S., and Stanojević, M. (2011) 'Varieties of Capitalism, Power Resources, and Historical Legacies: Explaining the Slovenian Exception', *Politics & Society*, Vol. 39, No. 2, pp. 268–295.

Csengődi, S., Csite, A., Felföldi, Z., and Juhász, M. (2006) 'Az I. Nemzeti Fejlesztési Terv forráselosztási mechanizmusai. Hét kistérség fejlesztési tapasztalatai [The resource allocation mechanism of the First National Development Plan. Experiences of seven microregions]', *Európai Tükör*, Vol. 11, No. 9, pp. 74–92.

Czernielewska, M., Paraskevopoulos, C. J., and Szlachta, J. (2004) 'The regionalization process in Poland: an example of 'Shallow' Europeanization?', *Regional and Federal Studies*, Vol. 14, No. 3, pp. 461–495.

Dąbrowski, M. (2012) 'Shallow or deep Europeanisation? The uneven impact of EU cohesion policy on the regional and local authorities in Poland', *Environment and Planning C: Government and Policy*, Vol. 30, No. 4, pp. 730 – 745.

Dąbrowski, M. (2014) 'Towards place-based regional and local development strategies in Central and Eastern Europe? EU cohesion policy and strategic planning capacity at the sub-national level', *Local Economy*, Vol. 29, No. 4-5, pp. 378–393.

Davey, K. J. (ed) (2003) *Investing in regional development: policies and practices in EU candidate countries*, (Local Government and Public Service Reform Initiative of the Open Society Institute).

Dawkins, C. J. (2003) 'Regional Development Theory: Conceptual Foundations, Classic Works, and Recent Developments', *Journal of Planning Literature*, Vol. 18, No. 2, pp. 131–172.

Dellmuth, L. M. (2011) 'The cash divide: the allocation of European Union regional grants', *Journal of European Public Policy*, Vol. 18, No. 7, pp. 1016–1033.

Dellmuth, L. M., and Stoffel, M. F. (2012) 'Distributive politics and intergovernmental transfers: The local allocation of European Union structural funds', *European Union Politics*, Vol. 13, No. 3, pp. 413–433.

Demko, G. (1984) *Regional Development Problems and Policies in Eastern and Western Europe*, (London and Sidney: Croom Helm).

Dobozi, E. (2000) *Területfejlesztési Országgyűlési Jelentés. 2. Háttéranyag. Pénzügyi Eszközök [Parliamentary Report on Spatial Development. Financial Tools]*, (Budapest: VÁTI).

Domański, B. (2005) 'Transnational corporations and the post-socialist economy: learning the ropes and forging new relationships in contemporary Poland', In C. G. Alvstam and E. W. Schamp (eds), *Linking industries across the world: Processes of global networking*, (Ashgate Publishing, Ltd.).

Downes, R. (1996) 'Economic transformation in central and Eastern Europe: The role of regional development', *European Planning Studies*, Vol. 4, No. 2, pp. 217–224.

Downes, R. (2000) 'Regional Policy Evolution in Hungary', In J. Bachtler, R. Downes, and G. Gorzelak (eds), *Transition, Cohesion and Regional Policy in Central and Eastern Europe*, (Aldershot: Ashgate).

Drahokoupil, J. (2008) 'The investment-promotion machines: The politics of foreign direct investment promotion in central and eastern Europe', *Europe-Asia Studies*, Vol. 60, No. 2, pp. 197–225.

Drahokoupil, J. (2009a) *Globalization and the state in Central and Eastern Europe: the politics of foreign direct investment*, (New York: Routledge).

Drahokoupil, J. (2009b) 'The Politics of the Competition State: The Agents and Mechanisms of State Transnationalization in Central and Eastern Europe', In L. Bruszt and R. Holzhacker (eds), *The Transnationalization of Economies, States, and Civil Societies. New Challenges for Governance in Europe*, (New York: Springer).

Drevet, J.-F. (2000) 'Regional Policy in Central and Eastern Europe: The EU Perspective', In J. Bachtler, R. Downes, and G. Gorzelak (eds), *Transition, Cohesion and Regional Policy in Central and Eastern Europe*, (Aldershot: Ashgate).

Dunford, M., and Smith, A. (2000) 'Catching Up or Falling Behind? Economic Performance and Regional Trajectories in the "New Europe"', *Economic Geography*, Vol. 76, No. 2, pp. 169–195.

Dunin-Wasowicz, S., Gorzynski, M., and Woodward, R. (2002) *Integration of Poland into EU Global Industrial Networks: the Evidence and the Main Challenges*, (London: University College London - Centre for the Study of Economic and Social Change in Europe -).

Dunn, J., and Wetzel, D. (2000) *Fiscal decentralization in former socialist economies: Progress and prospects.*, (Washington, D.C.: World Bank).

Ederveen, S., de Groot, H. L. F., and Nahuis, R. (2006) 'Fertile Soil for Structural Funds?A Panel Data Analysis of the Conditional Effectiveness of European Cohesion Policy', *Kyklos*, Vol. 59, No. 1, pp. 17–42.

Enyedi, G. (1984) 'Quality and Quantity of Regional Development Indicators in Eastern and Western Europe', In G. Demko (ed), *Regional Development Problems and Policies in Eastern and Western Europe*, (London and Sidney: Croom Helm).

Fazekas, K. (1992) 'Dilemmas of Hungarian regional policies during the transition', In G. Gorzelak and A. Kukliński (eds), *Dilemmas of Regional Policies in Eastern and Central Europe*, (Warsaw: European Institute for Regional and Local Development, University of Warsaw).

Ferry, M. (2013) 'Implementing Regional Policy in Poland: A New Era?', *Europe-Asia Studies*, Vol. 65, No. 8, pp. 1578–1598.

Ferry, M., and Mcmaster, I. (2005) 'Implementing structural funds in Polish and Czech regions: convergence, variation, empowerment?', *Regional and Federal Studies*, Vol. 15, No. 1, pp. 19–39.

Ferry, M., and McMaster, I. (2013a) 'Cohesion Policy and the Evolution of Regional Policy in Central and Eastern Europe', *Europe-Asia Studies*, Vol. 65, No. 8, pp. 1502–1528.

Ferry, M., and McMaster, I. (2013b) 'Between Growth and Cohesion: New Directions in Central and East European Regional Policy', *Europe-Asia Studies*, Vol. 65, No. 8, pp. 1499–1501.

Fidrmuc, J. (2004) 'Migration and regional adjustment to asymmetric shocks in transition economies', *Journal of Comparative Economics*, Vol. 32, No. 2, pp. 230–247.

Figel, J. (1999) 'Progress of Slovakia since the Regular Report 1998', In A. Wenig (ed), *A Pledge for an Early Opening of EU Accession Negotiations*, (Rheinische Friedrich Wilhelms-Universität Bonn: Center for European Integration Studies).

Fink, P. (2006) 'FDI-led growth and rising polarisations in Hungary: Quantity at the expense of quality', *New Political Economy*, Vol. 11, No. 1, pp. 47–72.

Fowler, B. (2001) *Debating Sub-state Reform on Hungary's "Road to Europe," Working Paper*, (Centre for Russian and East European Studies , University of Birmingham).

Fowler, B. (2002) 'Hungary: Patterns of Political Conflict Over Territorial-Administrative Reform', *Regional and Federal Studies*, Vol. 12, No. 2, pp. 15–40.

Fox, K. A., and Kumar, T. K. (1965) 'The Functional Economic Area: Delineation and Implications for Economic Analysis and Policy', *Papers in Regional Science*, Vol. 15, No. 1, pp. 57–85.

Frisina, L. (2008) *Understanding Regional Development: Absorption, Institutions and Socio-economic Growth in the Regions of the European Union*, (Frankfurt am Main: Peter Lang).

Galego, A., Vieira, C., and Vieira, I. (2004) 'The CEEC as FDI attractors: a menace to the EU periphery?', *Emerging Markets Finance and Trade*, Vol. 40, No. 5, pp. 74–91.

Garretsen, H., and Martin, R. (2010) 'Rethinking (new) economic geography models: taking geography and history more seriously', *Spatial Economic Analysis*, Vol. 5, No. 2, pp. 127–160.

Garretsen, H., and Martin, R. (2011) 'The Journal of Economic Geography a decade on: where do we go from here?', *Journal of Economic Geography*, Vol. 11, No. 2, pp. 207–213.

Gauselmann, A., Knell, M., and Stephan, J. (2011) 'What drives FDI in Central–Eastern Europe? Evidence from the IWH-FDI-Micro database', *Post-Communist Economies*, Vol. 23, No. 3, pp. 343–357.

Gerring, J., and Thacker, S. C. (2004) 'Political Institutions and Corruption: The Role of Unitarism and Parliamentarism', *British Journal of Political Science*, Vol. 34, No. 02, pp. 295–330.

Gertler, M. (2010) 'Rules of the Game: the Place of Institutions in Regional Economic Change', *Regional Studies*, Vol. 44, No. 1, pp. 1–15.

Giles, D. E. A. (1982) 'The interpretation of dummy variables in semilogarithmic equations: Unbiased estimation', *Economics Letters*, Vol. 10, No. 1–2, pp. 77–79.

Gorzelak, G. (1996) *The regional dimension of transformation in Central Europe*, (Jessica Kingsley Publishers).

Gorzelak, G. (2000) 'Poland', In J. Bachtler, R. Downes, and G. Gorzelak (eds), *Transition, Cohesion and Regional Policy in Central and Eastern Europe*, (Aldershot: Ashgate).

Grabbe, H. (2001) 'How does Europeanization affect CEE governance? Conditionality, diffusion and diversity', *Journal of European Public Policy*, Vol. 8, No. 6, pp. 1013–1031.

Grosse, T. G. (2006) 'Euro-Commentary: An Evaluation of the Regional Policy System in Poland Challenges and Threats Emerging from Participation in the Eu's Cohesion Policy', *European Urban and Regional Studies*, Vol. 13, No. 2, pp. 151–165.

Guagliano, C., and Riela, S. (2005) 'Do special economic areas matter in attracting FDI? Evidence from Poland, Hungary and Czech Republic', *ISLA Working Papers*.

Gujarati, D. N. (2004) *Basic Econometrics*, (Boston: McGraw-Hill).

Gwiazda, A. (2013) 'The Europeanisation of regional policy in Poland: did political parties make a difference?', *East European Politics*, Vol. 29, No. 2, pp. 226–244.

Gwosdz, K., Jarczewski, W., Huculak, M., and Wiederman, K. (2008) 'Polish Special Economic Zones: Idea versus Practice', *Environment and Planning C: Government and Policy*, Vol. 26, No. 4, pp. 824 – 840.

Hadjimichalis, C. (2006) 'Non-Economic Factors in Economic Geography and in 'New Regionalism': A Sympathetic Critique', *International Journal of Urban and Regional Research*, Vol. 30, No. 3, pp. 690–704.

Hadjimichalis, C., and Hudson, R. (2014) 'Contemporary Crisis Across Europe and the Crisis of Regional Development Theories', *Regional Studies*, Vol. 48, No. 1, pp. 208–218.

Harcsa, I., Kovách, I., and Szelényi, I. (1998) 'The Hungarian agricultural 'miracle' and the limits of socialist reforms', In I. Szelényi (ed), *Privatizing the land: rural political economy in post-communist societies*, (Routledge).

Harvey, D. (2001) *Spaces of Capital: Towards a Critical Geography*, (Edinburgh University Press).

Harvey, D. (2005) *Spaces of neoliberalization: towards a theory of uneven geographical development*, (Wiesbaden: Franz Steiner Verlag).

Harvey, D. (2011) 'Roepke Lecture in Economic Geography—Crises, Geographic Disruptions and the Uneven Development of Political Responses', *Economic Geography*, Vol. 87, No. 1, pp. 1–22.

Harvie, D., Slater, G., Philp, B., and Wheatley, D. (2009) 'Economic Well-being and British Regions: The Problem with GDP Per Capita', *Review of Social Economy*, Vol. 67, No. 4, pp. 483–505.

Hauser, F. (2006) 'Country risk and foreign direct investments in transition countries', (München: Ludwig-Maximillians-Universitat).

Heckman, J. J. (1979) 'Sample Selection Bias as a Specification Error', *Econometrica*, Vol. 47, No. 1, pp. 153–161.

Heitshusen, V., Young, G., and Wood, D. M. (2005) 'Electoral Context and MP Constituency Focus in Australia, Canada, Ireland, New Zealand, and the United Kingdom', *American Journal of Political Science*, Vol. 49, No. 1, pp. 32–45.

Henderson, J. V., Shalizi, Z., and Venables, A. J. (2001) 'Geography and development', *Journal of Economic Geography*, Vol. 1, No. 1, pp. 81–105.

Hirschman, A. (1958) *The Strategy of Economic Development*, (New Haven and London: Yale University Press).

Hooghe, L., Marks, G., and Schakel, A. H. (2008) 'Regional Authority in 42 Countries, 1950-2006: A Measure and Five Hypotheses', *Regional and Federal Studies*, Vol. 18, No. 2-3, pp. 167–181.

Hooghe, L., Schakel, A. H., and Marks, G. (2008) 'Appendix A: Profiles of Regional Reform in 42 Countries (1950–2006)', *Regional and Federal Studies*, Vol. 18, No. 2-3, pp. 183–258.

Horváth, G. (2000) 'Hungary', In J. Bachtler, R. Downes, and G. Gorzelak (eds), *Transition, Cohesion and Regional Policy in Central and Eastern Europe*, (Aldershot: Ashgate).

Horváth, G. (2001) *Európai regionális politika [European regional policy]*, (Budapest-Pécs: Dialóg-Campus).

Hox, J. (2010) *Multilevel Analysis: Techniques and Applications*, (New York: Routledge).

Hughes, J., Sasse, G., and Gordon, C. (2004) 'Conditionality and Compliance in the EU's Eastward Enlargement: Regional Policy and the Reform of Sub-national Government', *JCMS: Journal of Common Market Studies*, Vol. 42, No. 3, pp. 523–551.

Illés, I. (2001) 'Régiók és regionalizáció [Regions and regionalization]', *Tér és Társadalom*, Vol. 15, No. 1, pp. 1–23.

Ion, E. (2014) 'Public funding and urban governance in contemporary Romania: the resurgence of state-led urban development in an era of crisis', *Cambridge Journal of Regions, Economy and Society*, Vol. 7, No. 1, pp. 171-187.

Ishigaki, K. (ed) (2010) *Regional Development Policies in OECD Countries*, (Paris: OECD).

Ismeri Europa and Applica (2010) *Distribution of Competences in relation to Regional Development Policies in the Member States of the European Union*, (Brussels: European Commission).

Jacoby, W. (2004) *The Enlargement of the European Union and NATO: Ordering from the Menu in Central Europe*, (Cambridge: Cambridge University Press).

Jacoby, W. (2006) 'Inspiration, Coalition, and Substitution: External Influences on Postcommunist Transformations', *World Politics*, Vol. 58, No. 04, pp. 623–651.

Jacoby, W. (2010) 'Managing globalization by managing Central and Eastern Europe: the EU's backyard as threat and opportunity'', *Journal of European Public Policy*, Vol. 17, No. 3, pp. 416–432.

Jakubiak, M., Kolesár, P., Izvorski, I., and Kurekova, L. (2008) *The Automotive Industry in the Slovak Republic: Recent Developments and Impact on Growth*, (World Bank).

Jensen, C. (2006) 'Foreign Direct Investment and economic transition: Panacea or pain killer?', *Europe-Asia Studies*, Vol. 58, No. 6, pp. 881–902.

Kálmán, J. (2011) *Derangement or Development? Political Economy of Eu Structural Funds Allocation in New Member States - Insights from the Hungarian Case*, (Budapest: Center for Policy Studies, Central European University).

Kárpáti, T. (2003) 'Csehország és Magyarország külföldi működőtőke-vonzása és gazdaságukra gyakorolt hatása', *Külgazdaság*, Vol. 47, No. 6, pp. 39–54.

Kemmerling, A., and Bodenstein, T. (2006) 'Partisan Politics in Regional Redistribution Do Parties Affect the Distribution of EU Structural Funds across Regions?', *European Union Politics*, Vol. 7, No. 3, pp. 373–392.

Kemmerling, A., and Stephan, A. (2002) 'The politico-economic determinants and productivity effects of regional transport investment in Europe', *European Investment Bank Papers*, Vol. 13, No. 2, pp. 36–60.

Klazar, S., and Sedmihradsky, M. (2002) *Tax competition for FDI in Central-European countries*, (CESifo Working Paper no. 647).

Kolesár, P. (2006) *Race to the Bottom?: The Role of Investment Incentives Attracting Strategic Automotive Foreign Direct Investment in Central Europe*, (Budapest: CEU, Budapest College).

Korkut, U. (2008) 'Micro and macro development in Hungary under the glance of EU Cohesion Funds', *East European Quarterly*, Vol. 42, No. 3, pp. 285–315.

Kosc, W. (2003) 'Cutting the Cable', *Transitions Online*. (30 January 2003)

Kozak, M. (2000) 'Regional Development Policy in Poland in the 1990s', In J. Bachtler, R. Downes, and G. Gorzelak (eds), *Transition, Cohesion and Regional Policy in Central and Eastern Europe*, (Aldershot: Ashgate).

Krugman, P. (1991) 'Increasing Returns and Economic Geography', *Journal of Political Economy*, Vol. 99, No. 3, pp. 483–99.

Krugman, P. (1993) *Geography and Trade*, (Leuven: Leuven University Press).

Krugman, P. (2011) 'The new economic geography, now middle-aged', *Regional Studies*, Vol. 45, No. 1, pp. 1–7.

Kule, L., Krisjane, Z., and Berzins, M. (2011) 'The rhetoric and reality of pursuing territorial cohesion in Latvia', In N. Adams, G. Cotella, and R. Nunes (eds), *Territorial Developmemt, Cohesion and Spatial Planning*, (Abingdon and New York: Routledge).

Kureková, L. (2011) *From Job Search to Skill Search: Political Economy of Labour Migration in Central and Eastern Europe*, (Budapest: Central European University).

Kyriacou, A. P., and Roca-Sagalés, O. (2012) 'The impact of EU structural funds on regional disparities within member states', *Environment and Planning C: Government and Policy*, Vol. 30, No. 2, pp. 267 – 281.

Lackó, L. (1984) 'An Assessment of Regional Policies and Programs in Eastern Europe', In G. Demko (ed), *Regional Development Problems and Policies in Eastern and Western Europe*, (London and Sidney: Croom Helm).

Larsson, A. (2002) 'The development and regional significance of the automotive industry: supplier parks in western Europe', *International Journal of Urban and Regional Research*, Vol. 26, No. 4, pp. 767–784.

Le Gallo, J., Dall'erba, S., and Guillain, R. (2011) 'The Local versus Global Dilemma of the Effects of Structural Funds', *Growth and Change*, Vol. 42, No. 4, pp. 466–490.

Lesakova, L. (2008) 'Establishing Industrial Parks for the Development of the Slovak Economy', (Budapest: MEB).

Losch, A. (1954) *The Economics of Location*, (New Haven, CT: Yale University Press).

Lönnborg, M., Olsson, M., and Rafferty, M. (2003) 'The Race for Inward FDI in the Baltic States and Central and Eastern Europe', *Paper for the SNEE European-Integration conference 2003 - European integration in Swedish Economic research*.

Lucas, R. (1988) 'On the Mechanics of Economic Development', *Journal of Monetary Economics*, Vol. 22, No. 1, pp. 3–42.

Lukovics, M., and Loránd, B. (2010) 'A versenyképesség és pályázati forrásallokáció kistérségi szinten [Competitiveness and Tendering Efficiency on the Level of Micro-regions]', *Tér és Társadalom*, Vol. 24, No. 4, pp. 81–102.

MacKinnon, D., Cumbers, A., Pike, A., Birch, K., and McMaster, R. (2009) 'Evolution in Economic Geography: Institutions, Political Economy, and Adaptation', *Economic Geography*, Vol. 85, No. 2, pp. 129–150.

Maier, G. (2001) 'History, spatial structure, and regional growth: lessons for policy making', In B. Johansson, C. Karlsson, and R. R. Stough (eds), *Theories of Endogenous Regional Growth*, (Heidelberg: Springer-Verlag).

Marshall, A. (1920) *Principles of Economics: an Introductory Volume*, (London: Macmillan).

Martin, R. (1998) 'Regional Incentive Spending for European Regions', *Regional Studies*, Vol. 32, No. 6, pp. 527–536.

Martin, R. (2002) 'Institutional Approaches in Economic Geography', In E. Sheppard and T. J. Barnes (eds), *A Companion to Economic Geograhpy*, (Oxford: Blackwell Publishing).

Martin, R., and Sunley, P. (1998) 'Slow Convergence? The New Endogenous Growth Theory and Regional Development', *Economic Geography*, Vol. 74, No. 3, pp. 201–227.

Martin, R., and Sunley, P. (2006) 'Path dependence and regional economic evolution', *Journal of Economic Geography*, Vol. 6, No. 4, pp. 395–437.

McCann, P., and van Oort, F. (2009) 'Theories of agglomeration and regional economic growth: a historical review', In R. Capello and P. Nijkamp (eds), *Handbook of Regional Growth and Development Theories*, (Cheltenham: Edward Elgar Publishing).

Medve-Bálint, G. (2014) 'The Role of the EU in Shaping FDI Flows to East Central Europe', *Journal of Common Market Studies*, Vol. 52, No. 1, pp. 35–51.

Meyer, K., and Jensen, C. (2005) 'Foreign direct investment and government policy in Central and Eastern Europe', In G. Robert (ed), *International Business and Government Relations in the 21st Century*, (Cambridge University Press).

Milio, S. (2007) 'Can Administrative Capacity Explain Differences in Regional Performances? Evidence from Structural Funds Implementation in Southern Italy', *Regional Studies*, Vol. 41, No. 4, pp. 429–442.

Molotch, H. (1976) 'The City as a Growth Machine: Toward a Political Economc of Place', *American Journal of Sociology*, Vol. 82, No. 2, pp. 309–332.

Murphy, A. B. (1992) 'Western investment in East-Central Europe: emerging patterns and implications for state stability', *The Professional Geographer*, Vol. 44, No. 3, pp. 249–259.

Myant, M., and Drahokoupil, J. (2011) *Transition Economies: Political Economy in Russia, Eastern Europe, and Central Asia*, (Wiley).

Myrdal, G. (1957) *Economic Theory and Underdeveloped Regions*, (London: Duckworth).

Narula, R., and Bellak, C. (2009) 'EU Enlargement and Consequences for FDI-assisted Industrial Development', *Transnational Corporations*, Vol. 18, No. 2, pp. 69–90.

Nelson, M. K. (2003) 'The Polish defense industry: restructuring in the midst of economic transition', In A. Markusen, S. M. DiGiovanna, and M. C. Leary (eds), *From defense to development?: International perspectives on realizing the peace dividend*, (London and New York: Routledge).

Nižnanský, V., and Širak, M. (1999) 'Regional Policy and Regional Potential in Slovakia', In M. Brusis (ed), *Central and Eastern Europe on the Way into the European Union: Regional Policy-making in Bulgaria, the Czech Republic, Estonia, Hungary, Poland and Slovakia*, (Munich: Center for Applied Policy Research).

Nölke, A., and Vliegenthart, A. (2009) 'Enlarging the Varieties of Capitalism: The Emergence of Dependent Market Economies in East Central Europe', *World Politics*, Vol. 61, No. 4, pp. 670–702.

Odle, M. (1993a) 'Foreign direct investment as part of the privatization process', *Transnational Corporations*, Vol. 2, No. 2, pp. 7–34.

Odle, M. (1993b) 'Towards a stages theory approach to privatization', *Public Administration and Development*, Vol. 13, No. 1, pp. 17–35.

O'Dwyer, C. (2006) 'Reforming Regional Governance in East Central Europe: Europeanization or Domestic Politics as Usual?', *East European Politics & Societies*, Vol. 20, No. 2, pp. 219–253.

OECD (2001) *OECD Territorial Reviews. Hungary*, (Paris: OECD).

Oman, C. (2000) *Policy Competition for Foreign Direct Investment: A Study of Competition Among Governments to Attract FDI*, (OECD).

Pálmai, Z. (2013) '2007-2013: Hungarian Multi-Level Governance With or Without Regions?', In I. Pálné Kovács, J. Scott, and Z. Gál (eds), *Territorial Cohesion in Europe. For the 70th Anniversary of the Transdanubian Research Institute*, (Pécs: Institute for Regional Studies - Centre for Economic and Regional Studies, Hungarian Academy of Sciences).

Pálné Kovács, I. (2013) 'Miért hagytuk, hogy így legyen? A területi decentralizációs reformok természetrajza Magyarországon [Decentralization reforms in Hungary]', *Politikatudományi Szemle*, Vol. 22, No. 4, pp. 7–34.

Pálné Kovács, I., Paraskevopoulos, C. J., and Horváth, G. (2004) 'Institutional 'legacies' and the shaping of regional governance in Hungary', *Regional and Federal Studies*, Vol. 14, No. 3, pp. 430–460.

Papp, Z. (2013) *Legislators' constituency orientation under party-centred electoral rules. Evidence from Hungary*, (Budapest: Institute of Political Science, Corvinus University of Budapest).

Paraskevopoulos, C. J., and Leonardi, R. (2004) 'Introduction: adaptational pressures and social learning in European regional policy – cohesion (Greece, Ireland and Portugal) vs. CEE (Hungary, Poland) countries', *Regional and Federal Studies*, Vol. 14, No. 3, pp. 315–354.

Pavlínek, P. (1998) 'Foreign Direct Investment in the Czech Republic', *The Professional Geographer*, Vol. 50, No. 1, pp. 71–85.

Pavlínek, P. (2004) 'Regional development implications of foreign direct investment in Central Europe', *European Urban and Regional Studies*, Vol. 11, No. 1, p. 47.

Pavlínek, P., Domański, B., and Guzik, R. (2009) 'Industrial Upgrading Through Foreign Direct Investment in Central European Automotive Manufacturing', *European Urban and Regional Studies*, Vol. 16, No. 1, pp. 43–63.

Pavlínek, P., and Janák, L. (2007) 'Regional Restructuring of the Škoda Auto Supplier Network in the Czech Republic', *European Urban and Regional Studies*, Vol. 14, No. 2, pp. 133–155.

Perger, É. (2010) 'Az EU kohéziós politika kormányzati irányításának magyar sajátosságai [Characteristics of the Management System for EU Cohesion Policy in Hungary]', *Tér és Társadalom*, Vol. 24, No. 1, pp. 119–136.

Perroux, F. (1950) 'Economic Space: Theory and Applications', *The Quarterly Journal of Economics*, Vol. 64, No. 1, pp. 89–104.

Petrakos, G. (2001) 'Patterns of regional inequality in transition economies', *European Planning Studies*, Vol. 9, No. 3, pp. 359–383.

Petrakos, G., Kallioras, D., and Anagnostou, A. (2011) 'Regional convergence and growth in Europe: understanding patterns and determinants', *European Urban and Regional Studies*, Vol. 18, No. 4, pp. 375–391.

Pickles, J., and Smith, A. (2005) 'Technologies of transition: Foreign investment and the (re-) articulation of East Central Europe into the global economy', In D. Turnock (ed), *Foreign Direct Investment and Regional Development in East Central Europe and the Former Soviet Union*, (England: Ashgate Publishing, Ltd.).

Pilet, J.-B., Freire, A., and Costa, O. (2012) 'Ballot Structure, District Magnitude and Constituency-Orientation of MPs in Proportional Representation and Majority Electoral Systems', *Representation*, Vol. 48, No. 4, pp. 359–372.

Pleskovic, B., and Sachs, J. D. (1994) 'Political Independece and Economic Reform in Slovenia', In O. Blanchard, K. A. Froot, and J. D. Sachs (eds), *The Transition in Eastern Europe*, (University of Chicago Press).

Polanyi, K. (1944) *The Great Transformation: the Political and Economic Origins of our Time*, (Beacon Press).

Polyánszky, Z. T. (2012) 'Central and Eastern Europe: Catching up or lagging behind?: The Methodological Maze of the EU's Method of Measuring Development', *Society and Economy*, Vol. 34, No. 3, pp. 399–421.

Porter, M. E. (1990) *The Competitive Advantage of Nations*, (New York: Free Press).

Power, M. (2003) *Rethinking Development Geographies*, (London: Routledge).

Prud'homme, R. (1992) *Regional Development Problems and Policies in Poland*, (Paris: OECD).

Pyszkowski, A. (1992) 'Polish regional policies: diagnosis - problems - options', In G. Gorzelak and A. Kukliński (eds), *Dilemmas of Regional Policies in Eastern and Central Europe*, (Warsaw: European Institute for Regional and Local Development, University of Warsaw).

Revenga, A., and Silva-Jauregi, C. (eds) (2002) *Slovak Republic. Living Standards, Employment, and Labor Market Study*, (Washington, D.C.: The World Bank).

Richardson, H. (1984) 'Approaches to regional development theory in Western market economies', In G. Demko (ed), *Regional Development Problems and Policies in Eastern and Western Europe*, (London and Sidney: Croom Helm).

Richardson, H. W. (1979) 'Aggregate efficiency and interregional equity', In H. Folmer and J. Oosterhaven (eds), *Spatial inequalities and regional development*, (Springer Netherlands).

Romer, P. (1986) 'Increasing returns and long-run growth', *The Journal of Political Economy*, pp. 1002–1037.

Rugraff, E. (2008) 'Are the FDI policies of the Central European countries efficient?', *Post-communist economies*, Vol. 20, No. 3, pp. 303–316.

Sadler, D. (2003) 'Production Systems and Uneven Development in East Central Europe: The Limits to Regional Economic Management?', In M. Keating and J. Hughes (eds), *The Regional Challenge in Central and Eastern Europe. Territorial Restructuring and European Integration*, (Brussels: Presses Interuniversitaires Européennes).

Sajdik, M., and Schwarzinger, M. (2008) *European Union enlargement: background, developments, facts*, (Transaction Pub).

Sala-i-Martin, X. X. (1996) 'The Classical Approach to Convergence Analysis', *The Economic Journal*, Vol. 106, No. 437, pp. 1019–1036.

Salamin, G., Péti, M., and Czira, T. (2005) 'Paradigmaváltás küszöbén. Az új Országos területfejlesztési koncepció és a területi tervezés [Paradigm change. The new National Spatial Development Concept and spatial planning]', *Területi Statisztika*, Vol. 8 (45), No. 5, pp. 423–439.

Samuelson, P. A. (1953) 'Prices of Factors and Goods in General Equilibrium', *The Review of Economic Studies*, Vol. 21, No. 1, pp. 1–20.

Sass, M. (2003) *Competitiveness and Economic Policies Related to Foreign Direct Investment*, (Budapest: Ministry of Finance).

Sass, M. (2011) 'The impact of Foreign Direct Investment in business services on the local economy: The case of Hungary', In E. Rugraff and M. W. Hansen (eds), *Multinational Corporations and Local Firms in Emerging Economies*, (Amsterdam: Amsterdam University Press).

Šćepanović, V. (2013) *FDI as a Solution to the Challenges of Late Development: Catch-up without Convergence?*, (Budapest: Central European University).

Scherpereel, J. A. (2010) 'EU Cohesion Policy and the Europeanization of Central and East European Regions', *Regional and Federal Studies*, Vol. 20, No. 1, pp. 45–62.

Schimmelfennig, F., and Sedelmeier, U. (2005) *The Europeanization of Central and Eastern Europe*, (Ithaca: Cornell University Press).

Sheppard, E. (2011) 'Geographical political economy', *Journal of Economic Geography*, Vol. 11, No. 2, pp. 319–331.

Silvan, J. (2000) 'Slovak Republic', In J. Bachtler, R. Downes, and G. Gorzelak (eds), *Transition, Cohesion and Regional Policy in Central and Eastern Europe*, (Aldershot: Ashgate).

Sinn, H.-W., and Weichenrieder, A. J. (1997) 'Foreign direct investment, political resentment and the privatization process in Eastern Europe', *Economic Policy*, Vol. 12, No. 24, pp. 177–210.

Smętkowski, M. (2002) *Polish special economic zones as an instrument of regional and industrial policy, MPRA Paper No. 39184*, (Munich: Munich Personal RePEc Archive).

Smętkowski, M. (2013) 'Regional Disparities in Central and Eastern European Countries: Trends, Drivers and Prospects', *Europe-Asia Studies*, Vol. 65, No. 8, pp. 1529–1554.

Smith, N. (1990) *Uneven development: Nature, capital, and the production of space*, (Basil Blackwell).

Sodomka, V. (2003) *Regional Policy in the Czech Republic in the Period Around Accession to the European Union*, (Prague: Europeum - Institute for European Policy).

Sokol, M. (2001) 'Central and Eastern Europe a Decade After the Fall of State-socialism: Regional Dimensions of Transition Processes', *Regional Studies*, Vol. 35, No. 7, pp. 645–655.

Sokol, M. (2011) *Economic Geographies of Globalization*, (Cheltenham: Edward Elgar Publishing).

Solow, R. M. (1956) 'A Contribution to the Theory of Economic Growth', *The Quarterly Journal of Economics*, Vol. 70, No. 1, pp. 65–94.

Stimson, R. J., Stough, R., and Roberts, B. H. (2006) *Regional economic development: analysis and planning strategy*, (Springer Verlag).

Storper, M. (2011a) 'Why do regions develop and change? The challenge for geography and economics', *Journal of economic geography*, Vol. 11, No. 2, pp. 333–346.

Storper, M. (2011b) 'From retro to avant-garde: a commentary on Paul Krugman's 'The new economic geography, now middle-aged'', *Regional studies*, Vol. 45, No. 1, pp. 9–15.

Swain, A. (1998) *Institutions and Regional Development: Evidence from Hungary and Ukraine*, (Sussex Europen Institute - Centre on European Political Economy).

Swan, T. W. (1956) 'Economic Growth and Capital Accumulation', *Economic Record*, Vol. 32, No. 2, pp. 334–361.

SWECO (2008) *Final Report - ERDF and CF Regional Expenditure, Report prepared for the European Commission*, (Stockholm: SWECO International AB).

Szanyi, M. (1998) 'Experiences with Foreign Direct Investment in Eastern Europe: Advantages and Disadvantages', *Eastern European Economics*, Vol. 36, No. 3, pp. 28–48.

Szanyi, M. (2001) 'Privatization and Greenfield FDI in the Economic Restructuring of Hungary', *Transnational Corporations*, Vol. 10, No. 3, pp. 25–38.

Tabachnik, B. G., and Fidell, L. S. (2007) *Using Multivariate Statistics*, (Pearson Education Inc.).

Thielemann, E. (2002) 'The Price of Europeanization: Why European Regional Policy Initiatives Are a Mixed Blessing', *Regional and Federal Studies*, Vol. 12, No. 1, pp. 43–65.

Tobin, J. (1958) 'Estimation of Relationships for Limited Dependent Variables', *Econometrica*, Vol. 26, No. 1, pp. 24–36.

Tosun, J. (2014) 'Absorption of Regional Funds: A Comparative Analysis', *JCMS: Journal of Common Market Studies*, Vol. 52, No. 2, pp. 371–387.

Trník, M. (2007) *The Role of Investment Promotion Agencies at Attracting Foreign Direct Investment and Their Impact on Economic Development in Central Europe: The Czech Republic and Slovakia in Comparative Perspective*, (Budapest: CEU, Budapest College).

Uminski, S. (2001) 'Foreign Capital in the Privatization Process of Poland', *Transnational Corporations*, Vol. 10, No. 3, pp. 75–94.

Vachudova, M. A. (2005) *Europe Undivided: Democracy, Leverage, and Integration after Communism*, (New York: Oxford University Press).

Van Garderen, K. J., and Shah, C. (2002) 'Exact interpretation of dummy variables in semilogarithmic equations', *Econometrics Journal*, Vol. 5, No. 1, pp. 149–159.

Varró, K. (2010) 'Re-Politicising the Analysis of "New State Spaces" in Hungary and Beyond: Towards an Effective Engagement with "Actually Existing Neoliberalism"', *Antipode*, Vol. 42, No. 5, pp. 1253–1278.

Venables, A. J. (2003) 'Winners and losers from regional integration agreements', *The Economic Journal*, Vol. 113, No. 490, pp. 747–761.

Vozáb, J. (2007) 'Evolution of the Czech Regional Policy in the Context of the EU Regional Policy', (Izmir:).

Werner, R. (2003) 'Location, Cheap Labor and Government Incentives: A Case Study of Automotive Investment in Central Europe since 1989', *Chazen Web Journal of International Business*, Vol. 2, No. 1, pp. 2–29.

Wisniewski, A. (2005) 'The Impact of Foreign Direct Investment on Regional Development in Poland', *Institute for World Economics, Hungarian Academy of Sciences*, No. 162, p. 36.

Wooldridge, J. (2012) *Introductory Econometrics: A Modern Approach*, (Mason: South-Western, Cengage Learning).

World Bank (2004) *Competing for FDI - Inside the operations of four national investment promotion agencies*, (The World Bank Group / MIGA).

Yoder, J. A. (2003) 'Decentralisation and Regionalisation after Communism: Administrative and Territorial Reform in Poland and the Czech Republic', *Europe-Asia Studies*, Vol. 55, No. 2, pp. 263–286.

Young, C. (2005) 'Meeting the new foreign direct investment challenge in East and Central Europe: place-marketing strategies in Hungary', *Environment and Planning C-Government and Policy*, Vol. 23, No. 5, pp. 733–757.

Zachar, D. (2004) *Reforms in Slovakia 2003-2004. Evaluation of Economic and Social Measures*, (Bratislava: Institute for Economic and Social Reforms).

Zarycki, T. (2000) 'Politics in the Periphery: Political Cleavages in Poland Interpreted in their Historical and International Context', *Europe-Asia Studies*, Vol. 52, No. 5, pp. 851–873.

## List of interviews

CzechInvest 2011: Interview with a former CEO of CzechInvest (Prague, 14 November 2011)

ITDHa 2012: Interview with a former CEO of ITD-Hungary (Budapest, 23 February 2012)

ITDHb 2012: Interview with a former director of ITD-Hungary (Budapest, 8 March 2012)

PAIiIZ 2011: Interview with the Director of the Regional Development Department of PAIiIZ (Warsaw, 5 September 2011)

SARIO 2012: Interview with the CEO of SARIO (Bratislava, 8 February 2012)

# Appendix

## A1.1: Overview of major theories of regional development

| Theoretical approach | Foundational works | Basic assumptions | Mechanisms | Consequences for regional development |
|---|---|---|---|---|
| **Location theories** | | | | |
| *industrial districts* | Marshall (1920) | agglomeration effects, positive externalities like technological and knowledge spillovers between businesses facilitated by an enabling social climate (‘*milieu’)* | spatial concentration of economic agents (either from the same or different industries) generate beneficial knowledge spillovers that attract more agents to the location | concentration of economic activity in industrial districts |
| *growth poles, polarization theory* | Perroux (1950), Hirschman (1958) | imperfect markets, distorted price mechanisms, economies of scale, mobility of production factors | industrial activity tends to concentrate in preferred locations due to the effects of economies of scale, core industries become the major sources of growth | circular cumulative spatial process of growth and decline, trickle down effects from the growth pole to the periphery leading to the emergence of interdependent leading and backward regions |
| *cumulative causation* | Myrdal (1957) | distorted price mechanisms, economies of scale, mobility of production factors | accumulation of capital, labour, skills and knowledge in certain locations giving them sustained competitive advantage over other areas | persistent regional disparities, virtuous and vicious circles of development and backwardness |
| *geographical clustering* | Porter (1990) | global competitiveness of domestic industry is based on geographical clustering of economic activity | concentration of industrial activity increases domestic rivalry among firms which stimulates innovation and investment in specialized infrastructure that enhances international competitiveness | geographical clustering (concentration) of economic activities, divergent regional development |
| **Neo-classical theories** | | | | |
| *neo-classical trade theory* | Heckscher (1919), Ohlin (1933), Samuelson (1953) | two factors of production, constant returns to scale, identical production functions, zero transportation costs, factor mobility only within countries (regions) | specialization in those capital- or labour intensive products for which the corresponding factor is locally abundant, trading commodities will over time equalize relative factor prices | inter-regional convergence of factor prices and income |
| *neo-classical growth theory* | Solow (1956), Swan (1956) | perfect competition, full mobility of production factors, diminishing returns to scale, identical production functions | factors of production flow to places where rates of return are higher, over time this leads to factor price equalization across regions | convergence, dispersion of economic activity through space, elimination of inter-regional disparities |

## A1.1 (cont.): Overview of major theories of regional development

| Theoretical approach | Foundational works | Basic assumptions | Mechanisms | Consequences for regional development |
|---|---|---|---|---|
| **Augmented neo-classical theories** | | | | |
| *new endogenous growth theory* | Romer (1986), Lucas (1988) | agglomeration effects (economies of scale, increasing returns), positive externalities, technological change and human capital treated as endogenous to growth | increasing returns and positive externalities generate self-reinforcing concentration of economic activity, the density of economic actors allows for spillovers leading to technological innovation and the upgrading of human capital that enhances growth | divergence, path-dependent regional development, concentration of economic activity in certain locations |
| *new economic geography* | Krugman (1991) | economies of scale (increasing returns), mobility of factors of production, imperfect competition, transport costs | increasing returns in production generate concentration of economic activity, transport costs create an incentive for plants to locate close to large markets | cumulative causation of regional growth processes, persistent regional inequalities due to path dependent development |
| **Alternative approaches** | | | | |
| *evolutionary economic eeography* | Storper (1997), Martin & Sunley (2006) | social, cultural and institutional peculiarities of a given location; role of historical events in development, path dependence | development is context-specific, determined by historical events and the evolution of local economic structures and institutions | path dependent regional development depending on the institutional evolution and socio-cultural context of the locality |
| *Marxist theories* | Harvey (1980), Smith (1990) | capital mobility, capital accumulation orchestrated by the capitalist class | profit-oriented capitalists centralize capital into large units of production, use coercive measures (involving the state) to exploit workers | core-periphery relations created and maintained by capitalists, uneven regional development is the outcome of the purposeful action of the capitalist class |
| *growth machine theory* | Molotch (1976) | interregional competition among political and economic elites for economic resources | local political organization (growth coalitions) and competition determines regional growth and decline | divergence in regional income depending on whether local growth coalitions succeed in their efforts |



Works indicated above but not listed in the references:

Harvey, D. (1984) *The Limits to Capital*, (Oxford: Blackwell Publishing).
Heckscher, E. F. (1919) 'The effect of foreign trade on the distribution of income', *Ekonomisk Tidskrift*, Vol. 21, pp. 497–512.
Ohlin, B. (1933) *Interregional and international trade*, (Cambridge, MA: Harvard University Press).

## A1.2 The Theil-index

The Theil-coefficient is one of the most commonly used measures of regional disparity. The index is calculated according to the formula below:

$$T = \sum_{i=1}^{n} \frac{y_i}{Y} \times ln\left[\frac{y_i}{Y} / \frac{p_i}{P}\right]$$

$Y$ is the total national output (GDP), $P$ is the total population, $y_i$ is the GDP of region $i$ and $p_i$ is the population of region $i$. The natural logarithm of the quotient $\left[\frac{y_i}{Y} / \frac{p_i}{P}\right]$ captures each region's contribution to inequality. If the region has a higher share from the overall GDP than its population share $\left(\frac{y_i}{Y} > \frac{p_i}{P}\right)$ then the quotient will be higher than one and its natural logarithm will be positive. If the region's share from the GDP is lower than its share from the total population $\left(\frac{y_i}{Y} < \frac{p_i}{P}\right)$ then the quotient will be lower than one and its natural logarithm will be negative. The maximum value of equality occurs when each region takes the same share from the GDP as from the population. In that case the natural logarithm of the quotient for each region will be 0, and the formula will yield 0 as well. Thus the lower bound of the Theil-coefficient is 0. The theoretical upper bound is reached when a single region $p_I$ produces all the output. In that case the upper bound is determined by this region's share from the total population. Intuitively, the lower the population share of region $p_I$, the higher the overall level of inequality.

Adapted from Michael Dunford (2006): Regional inequalities (School of Social Sciences and Cultural Studies, University of Sussex), handout

Available at: https://www.sussex.ac.uk/webteam/gateway/file.php?name=regineq02.pdf&site=2. (Accessed on 5 November 2014)

## A3.1 A description of the variables (Models 1-6)

| Name | Level | Description | Source |
|---|---|---|---|
| FDI per capita (2012) | NUTS 3 | per capita foreign direct investment stock (equity capital and reinvested earnings) in euro expressed in constant 2000 prices | the author's own calculation based on data obtained from central banks of the V4 |
| GDP per capita (1995) | NUTS 3 | per capita gross domestic product in euro in constant 2000 prices (1999 values for Polish regions) | the author's own calculation based on data obtained from central statistical offices of the V4 |
| GDP per capita (2012) | NUTS 3 | per capita gross domestic product in euro in constant 2000 prices (2011 values for Polish and Slovak regions) | the author's own calculation based on data obtained from central statistical offices of the V4 |
| Urban population (1995) | NUTS 3 | percentage share of town and city residents from the total population | central statistical offices of the V4 |
| Unemployment (1997) | NUTS 3 | number of registered job applicants per 1000 employed (1999 values for Polish regions) | the author's own calculation based on data obtained from central statistical offices of the V4 |
| Western region | NUTS 3 | dummy variable coded for all NUTS 3 regions that have a common border with Germany or Austria | |
| Metropolitan region | NUTS 3 | dummy variable coded for city regions of Bratislavsky, Budapest, Warsaw, Cracow, Łódz, Poznan, Szczeczin, Wrocław, Prague, and Trójmiejski (Gdansk, Gdynia and Sopot) | |

## A3.2 Descriptive statistics of the variables (Models 1-6)

| **All NUTS 3 regions** | N | Mean | Std. Deviation | Skewness | Kurtosis |
|---|---|---|---|---|---|
| Logarithm of GDP per capita in 1995 | 108 | 8.321 | .303 | 1.238 | 2.113 |
| Logarithm of GDP per capita in 2012 | 108 | 8.707 | .357 | 1.068 | 1.751 |
| Logarithm of FDI per capita in 2012 | 108 | 5.977 | 1.939 | -.879 | 1.502 |
| Share (%) of urban population in 1995 | 108 | 60.047 | 18.325 | .764 | .074 |
| Registered job applicants per 1000 employed in 1997 | 108 | 154.726 | 82.898 | .489 | -.052 |
| **Non-metropolitan NUTS 3 regions** | N | Mean | Std. Deviation | Skewness | Kurtosis |
| Logarithm of GDP per capita in 1995 | 98 | 8.251 | .208 | .249 | -.421 |
| Logarithm of GDP per capita in 2012 | 98 | 8.630 | .262 | .302 | .489 |
| Logarithm of FDI per capita in 2012 | 98 | 5.763 | 1.863 | -1.068 | 1.645 |
| Share (%) of urban population in 1995 | 98 | 56.120 | 14.148 | .513 | .478 |
| Registered job applicants per 1000 employed in 1997 | 98 | 166.017 | 78.291 | .537 | .111 |

## A3.3 Correlation matrix of the variables (Models 1-6)

| | GDP per capita in 1995 | GDP per capita in 2012 | FDI per capita in 2012 | Share of urban population in 1995 | Registered job applicants per 1000 employed in 1997 | Western region |
|---|---|---|---|---|---|---|
| GDP per capita in 1995 | 1 | | | | | |
| GDP per capita in 2012 | .957** | 1 | | | | |
| FDI per capita in 2012 | .617** | .683** | 1 | | | |
| Share of urban population in 1995 | .759** | .692** | .389** | 1 | | |
| Registered job applicants per 1000 employed in 1997 | -.585** | -.540** | -.444** | -.418** | 1 | |
| Western region | .190* | .106 | .202* | .141 | -.200* | 1 |

* p < .05 ** p < .01

## A3.4: The most important state aid schemes supporting new investments in the Visegrad states since EU accession

| Scheme code | Name | Annual budget | Duration | Eligible regions | Sectoral limitation |
|---|---|---|---|---|---|
| **Czech Republic** | | | | | |
| CZ179/2004 | Programme for support of industrial zones development | 44 mln EUR (in 2004) | until 12.31.2006 | All | |
| CZ181/2004 | Framework programme for support of establishment and expansion of technology centres and centres of business support services | 7.1 mln EUR (in 2004) | until 12.31.2006 | All | |
| N259/2004 | Investment Incentives Law | 71.788 mln EUR | 18.06.2004-31.12.2006 | All | Manufact-uring |
| SA.32823 | On investment incentives and the amendment of the Investment Incentives Law | N/A | 21.03.2011-31.12.2013 | All[a] | Manufact-uring |
| SA.35162 | On investment incentives and the amendment of the Investment Incentives Law | 6500 mln CZK | 12.07.2012-31.12.2013 | All[a] | Manufact-uring |
| XR32/2007 | Investment incentives | 2.68 mln CZK | 02.07.2007-31.12.2013 | N/A | Specific sectors |
| XR82/2007 | Framework Programme for Support of Technology Centres and Strategic Services | 950 mln CZK | 18.04.2007-31.12.2013 | All | |
| **Hungary** | | | | | |
| HU1/2003 | Earmarked scheme for investment incentives | 107.2 mln EUR | until 31.12.2006 | All | |
| HU6/2003 | Earmarked Scheme of Aid for Entrepreneurial Zones | 3.8 mln EUR (in 2003) | until 31.12.2006 | All | |
| XR197/2007 | Regional Investment Support from EGT and Norwegian Financial Mechanism | 1006.02 mln HUF | 15.10.2007-30.04.2011 | All | |
| XR47/2007 | Investment Subsidies Granted by Individual Government Decision | 38000 mln HUF | 29.01.2007-31.12.2013 | All | |
| SA.36616 | Investment tax relief in free enterprise zones | 6000 mln HUF | 01.01.2013-31.12.2014 | 12 NUTS 3 regions[b] | |
| SA.36615 | Social contribution tax relief and vocational training contributions in the area of free enterprise zones | 1000 mln HUF | 01.01.2013-31.12.2014 | 12 NUTS 3 regions[b] | |

**Poland**

| | | | | |
|---|---|---|---|---|
| PL3/2004 | Aid scheme for entrepreneurs making new investment | 328.4 mln EUR | until 31.12.2006 | All |
| PL29/2004 | Regional aid for supporting new investments and creating new jobs connected to a new investment | 2500 mln EUR | 09.03.2005-31.12.2006[c] | All |
| PL39/2004 | Regional aid scheme for entrepreneurs operating in special economic zones on the basis of a permit issued after 31 December 2000. | 100 mln PLN | 21.12.2005-31.12.2006[c] | All |
| PL43/2004 | Regional aid for supporting new investments and creating new jobs connected to a new investment | 76 mln EUR | until 31.12.2006 | All |
| SA.35010 | Regulation of the Minister of Regional Development concerning the granting of financial assistance under the Operational Programme Innovative Economy 2007-2013 | 777.71 mln PLN | 21.04.2012-31.12.2013 | All |
| SA.32806 | Regional aid under the regional operational programs | 2100 mln PLN | 21.12.2010-31.12.2013 | All |
| XR100/2007 | Resolution on real estate tax exemption in the frame of regional aid scheme for innovative and R&D initial investments in Wrocław | 2 mln PLN | 19.01.2007-31.12.2013 | Wrocław |
| XR101/2007 | Resolution on real estate tax exemption in the frame of regional aid scheme for initial investment for enterprises in Special Economic Zones. Industrial Parks in Wrocław | 2 mln PLN | 19.01.2007-31.12.2013 | Wrocław |
| XR127/2007 | Regional investment aid for entrepreneurs in the city of Stargard Szczecinski | 5 mln PLN | 29.05.2007-31.12.2013 | Stargard Szczecinski |
| XR128/2007 | Regional aid for undertaking new investment activities in the commune of Świecie | 2 mln PLN | 11.07.2007-31.12.2013 | Świecie |
| XR129/2007 | Resolution on real estate tax exemption in the frame of regional aid scheme for the city of Katowice | 0.264 mln EUR | 23.06.2007-31.12.2013 | Katowice |
| XR130/2007 | Regional aid scheme for entrepreneurs investing in the commune of Goleniów | 1 mln PLN | 16.05.2007-31.12.2013 | Goleniów |
| XR16/2008 | Regional aid scheme to support new investments and creation of new jobs associated with the new investment. intended for those operating business in the city of Gorzów Wielkopolski and in the special economic zones located within the city of Gorzów Wielkopolski. | 1 mln PLN | 09.06.2007-31.12.2013 | Gorzów Wielkopolski |
| XR163/2007 | Regional aid scheme to promote new investments and the creation of new jobs in the city of Łódz | 2.5 mln PLN | 09.06.2007-31.12.2013 | Łódz |
| XR164/2007 | Regional aid scheme to promote new large investments and the creation of new jobs in the city of Łódz | 2.5 mln PLN | 09.06.2007-31.12.2013 | Łódz |
| XR165/2007 | Regional aid scheme to promote new investments in modern technology and the creation of new jobs in the city of Łódz | 2 mln PLN | 09.06.2007-31.12.2013 | Łódz |
| XR17/2008 | Regional aid scheme to support new investments in the city of Elbląg | 0.2607 mln EUR | 09.06.2007-31.12.2013 | Elbląg |
| XR176/2007 | Resolution on real estate tax exemption for new investments in the city of Rawicz | 0.4 mln PLN | 31.05.2007-31.12.2013 | Rawicz |

| | | | | |
|---|---|---|---|---|
| XR177/2007 | Resolution on real estate tax exemption to support new investments or the creation of new jobs associated with the new investment in the commune of Jelcz-Laskowice | 4 mln PLN | 01.08.2007-31.12.2013 | Jelcz-Laskowice |
| XR178/2007 | Resolution on real estate tax exemption to support new investments or the creation of new jobs associated with the new investment in the commune of Głogów | 1 mln PLN | 01.08.2007-31.12.2013 | Głogów |
| XR179/2007 | Resolution on real estate tax exemption to support new investments or the creation of new jobs associated with the new investment in the city of Szczeczin | 1.4 mln PLN | 12.09.2007-31.12.2013 | Szczecin |
| XR180/2007 | Exemption from property tax for entrepreneurs investing in the commune of Kobierzyce | 10 mln PLN | 28.06.2007-31.12.2013 | Kobierzyce |
| XR181/2007 | Resolution on real estate tax exemption to support new investments or the creation of new jobs associated with the new investment in the city of Częstochowa | N/A | 10.01.2007-31.12.2013 | Częstochowa |
| XR19/2008 | Regional aid scheme for the creation of new jobs associated with new investments for companies doing business in the city of Elblag | 0.2607 mln EUR | 09.06.2007-31.12.2013 | Elbląg |
| XR21/2008 | Resolution on real estate tax exemption to support new investments or the creation of new jobs associated with the new investment in the city of Gliwice | 2 mln PLN | 01.08.2007-31.12.2013 | Gliwice |
| XR24/2008 | Regional aid scheme to promote new investments and the creation of new jobs in the commune of Szubin | 0.85 mln PLN | 01.01.2008-31.12.2013 | Szubin |
| **Slovakia** | | | | |
| SA.21786 | Regional aid scheme for large enterprises | 332.1 mln EUR (total budget) | 05.10.2006-31.12.2006 | All |
| SK74/2003 (XE14/2004) | State aid scheme for support of employment | 150.6 mln EUR (total budget) | 07.07.2004-31.12.2008 | All |
| XR62/2008 | State aid scheme to support the introduction of innovative and advanced technologies in industry and the services sector | 589.85 mln SKK | 25.03.2008-31.12.2013 | All |
| XR63/2008 | Aid scheme to improve energy efficiency and the introduction of advanced technologies in the energy sector | 450.71 mln SKK | 25.03.2008-31.12.2013 | All |
| XR64/2008 | State aid scheme to support business activities in the tourism industry | 566.256 mln SKK | 25.03.2008-31.12.2013 | All |
| SA.33666 | State aid scheme to support the introduction of innovative and advanced technologies in industry and in services | 5.49 mln EUR | 13.09.2011-31.12.2013 | All[d] |
| SA.36134 | State aid scheme to support the introduction of innovative and advanced technologies in industry and in services | 47.29 mln EUR | 21.12.2012-31.12.2013 | All[d] |

*Source*: EU State Aid Register, List of existing aid measures approved by the EU by the time of accession (Available at http://ec.europa.eu/competition/state_aid/register/annex4_3.pdf)

a: except for Prague

b: Baranya, Somogy, Tolna, Borsod-Abaúj-Zemplén, Heves, Nógrád, Hajdú-Bihar, Jász-Nagykun-Szolnok, Szabolcs-Szatmár-Bereg, Bács-Kiskun, Békés, Csongrád

c: prolonged until 31.12.2013

d: except for Bratislavsky region

## A3.5: Subsidized foreign investments in the Visegrad countries falling in the category of notified aid (2003-2014)

| Case number | Country | Location | Region | Aid beneficiary | Sector | Country of investor | Aid amount (EUR) | Aid intensity (%) | Total investment (EUR) |
|---|---|---|---|---|---|---|---|---|---|
| N661/2006 | CZ | Nošovice | Moravskoslezský kraj | Hyundai Motor Corporation | car manufacturing | South Korea | 172 500 000 | 15.00% | 1 149 000 000 |
| N907/2006 | HU | Visonta | Heves | Mátrai Hőerőmű | power generation | Germany | 47 300 000 | 9.14% | 517 200 000 |
| N671/2008 | HU | Kecskemét | Bács-Kiskun | Mercedes-Benz | car manufacturing | Germany | 112 300 000 | 20.34% | 553 100 000 |
| N34/2006 | HU | Rácalmás | Fejér | Hankook | tyre manufacturing | South Korea | 93 100 000 | 21.90% | 424 900 000 |
| N165/2009 | SK | Kysucké Nové Mesto | Žilinský | INA Kysuce | manufacturing of ball bearings | Germany | 30 000 000 | 21.43% | 140 000 000 |
| N500/2008 | SK | Čáry | Trnavský | Bana Čáry | mining of coal and lignite | N/A | 3 660 000 | 30.00% | 12 200 000 |
| N674/2008 | SK | Bratislava | Bratislavský | Volkswagen | car manufacturing | Germany | 12 560 000 | 4.67% | 269 100 000 |
| N710/2009 | SK | Trenčín | Trenčiansky | AU Optronics | manufacturing of TFT-LCD modules and TV sets | Taiwan | 34 900 000 | 18.96% | 184 000 000 |
| N847/2006 | SK | Voderady | Trnavský | Samsung | manufacturing of TFT-LCD modules and TV sets | South Korea | 65 100 000 | 21.97% | 296 300 000 |
| N857/2006 | SK | Žilina | Žilinský | Kia Motors | car manufacturing | South Korea | 32 400 000 | 14.98% | 216 300 000 |
| N875/2006 | SK | Gbeľany | Žilinský | Hysco | processing of steel for motor vehicles | South Korea | 2 680 000 | 12.13% | 22 100 000 |
| N876/2006 | SK | Žilina | Žilinský | Glovis | car manufacturing | South Korea | 1 420 000 | 12.00% | 11 800 000 |
| C11/2008 | PL | Nowogrodziec | Jeleniogórski | BVG Medien Beteiligungs | printing magazines, commercial catalogues and inserts | Germany | 47 300 000 | 29.93% | 158 000 000 |
| C46/2008 | PL | Łódz | Miasto Lódź | Dell | production of personal computers | United States | 52 730 000 | 27.81% | 189 600 000 |
| N107/2006 | PL | Cracow | Miasto Kraków | IBM | software development | United States | 200 000 | 4.15% | 4 820 000 |
| N200/2010 | PL | Wrocław | Miasto Wrocław | Hewlett-Packard | computer programming | United States | 2 320 000 | 6.46% | 35 870 000 |
| N245/2006 | PL | Kobierzyce | Wrocławski | LG-Phillips | manufacturing of TFT-LCD modules and TV sets | South Korea | 74 200 000 | 20.33% | 364 900 000 |
| N246/2006 | PL | Kobierzyce | Wrocławski | Ohsung Display | manufacturing metal components for back light units of LCD modules and metal top cases for LCD modules | South Korea | 9 430 000 | 42.19% | 22 350 000 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| N247/2006 | PL | Kobierzyce | Wrocławski | Lucky SMT | manufacturing printed circuit boards for LCD modules | South Korea | 6 160 000 | 40.31% | 15 280 000 |
| N258/2006 | PL | Kobierzyce | Wrocławski | Dong Yang Electronics | manufacturing plastic components for back light units, other plastic products and assembling surface mounted circuit boards for LCD modules | South Korea | 13 600 000 | 44.10% | 30 840 000 |
| N249/2006 | PL | Kobierzyce | Wrocławski | Heesung Electronics | manufacturing back light units for LCD modules | South Korea | 30 970 000 | 31.21% | 99 200 000 |
| N250/2006 | PL | Kobierzyce | Wrocławski | LG Chem | manufacturing for LCD modules and filters for plasma display panel modules | South Korea | 15 140 000 | 43.54% | 34 770 000 |
| N251/2006 | PL | Kobierzyce | Wrocławski | LG Innotek | establishment manufacturing TV tuners, inverters and power supply units | South Korea | 19 880 000 | 39.98% | 49 720 000 |
| N256/2006 | PL | Kobierzyce | Wrocławski | LG Electronics | manufacturing of household appliances (refrigerators and washing machines) | South Korea | 22 260 000 | 37.10% | 59 990 000 |
| N257/2006 | PL | Kobierzyce | Wrocławski | LG Electronics | manufacturing of TV sets | South Korea | 16 470 000 | 41.87% | 39 330 000 |
| N293/2009 | PL | Warszawa | Miasto Warszawa | Samsung | software development | South Korea | 850 000 | 8.74% | 9 720 000 |
| N299/2007 | PL | Łysomice | Bydgosko-toruński | Sharp | manufacturing of LCD TV modules and TV sets | Japan | 48 300 000 | 29.55% | 163 400 000 |
| N307/2010 | PL | Bydgoszcz | Bydgosko-toruński | ATOS Origin IT Services | information technology | France | 640 000 | 6.91% | 9 260 000 |
| N360/2008 | PL | Cracow | Miasto Kraków | State Street Services | business and other management consultancy services | United States | 890 000 | 7.12% | 12 500 000 |
| N406/2008 | PL | Warszawa | Miasto Warszawa | Robert Bosch | software development | Germany | 330 000 | 2.50% | 13 300 000 |
| N433/2008 | PL | Wrocław | Miasto Wrocław | UPS | accounting, bookkeeping and auditing activities | United States | 230 000 | 2.88% | 7 980 000 |
| N433/2010 | PL | Warszawa, Łódz, Olsztyn | Miasto Warszawa, Miasto Łódz, Olsztyński | Citibank | data processing | United States | 360 000 | 2.84% | 12 670 000 |
| N447/2009 | PL | Wrocław, Szczecin | Miasto Wrocław, Miasto Szczecin | TietoEnator | computer programming | Finland | 1 200 000 | 7.97% | 15 070 000 |
| N447/2010 | PL | Wrocław, Gdynia | Miasto Wrocław, Trójmiejski | Geoban | software development | Spain | 420 000 | 2.53% | 16 600 000 |
| N448/2009 | PL | Wrocław | Miasto Wrocław | Crisil Irevna | software development | India | 310 000 | 9.30% | 3 330 000 |
| N468/2009 | PL | Poznań | Miasto Poznań | Roche | biotechnology | Switzerland | 280 000 | 4.04% | 6 930 000 |
| N51/2008 | PL | Wrocław | Miasto Wrocław | KPIT Infosystems | accounting and auditing services, consultancy | India | 330 000 | 2.37% | 13 900 000 |
| N522/2008 | PL | Poznań | Miasto Poznań | Franklin Templeton Investments | business and other management consultancy services | United States | 1 390 000 | 6.27% | 22 160 000 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| N529/2005 | PL | Wrocław | Miasto Wrocław | Fagor (Wrozamet) | manufacturing of household appliances | Spain | 12 400 000 | 40.00% | 31 000 000 |
| N255/2010 | PL | Łódz | Miasto Lódź | Nordea Bank | financial services | Sweden | 330 000 | 4.23% | 7 800 000 |
| N576/2007 | PL | Warszawa | Miasto Warszawa | Humax | manufacturing of consumer electronics (R&D center) | South Korea | 540 000 | 9.62% | 5 610 000 |
| N578/2007 | PL | Poznań | Miasto Poznań | Carlsberg Accounting Centre | accounting and business services | Denmark | 260 000 | 2.81% | 9 250 000 |
| N618/2005 | PL | Mława | Ciechanowsko-płocki | LG Electronics | manufacturing of electrical equipment | South Korea | 7 450 000 | 9.22% | 80 770 000 |
| N629/2005 | PL | Wrocław | Miasto Wrocław | Hewlett-Packard | business services | United States | 2 000 000 | 10.52% | 19 000 000 |
| N630/2005 | PL | Niepołomice | Krakowski | Man Trucks | manufacturing of motor vehicles | Germany | 12 710 000 | 13.70% | 92 740 000 |
| N633/2008 | PL | Tychy | Tyski | Ford-Werke | car manufacturing | Germany | 4 200 000 | 5.33% | 78 800 000 |
| N67/2008 | PL | Cracow, Wrocław | Miasto Kraków, Miasto Wrocław | Google | business services (Google Operation Centre) | United States | 880 000 | 8.60% | 10 230 000 |
| N721/2007 | PL | Gdańsk | Trójmiejski | Reuters Europe | business services, data processing (information services center) | United States | 300 000 | 4.42% | 6 790 000 |
| N743/2007 | PL | Poznań | Miasto Poznań | Man Accounting Centre | financial and accounting services | Germany | 360 000 | 4.28% | 8 400 000 |
| N744/2007 | PL | Gdańsk | Trójmiejski | Zensar Technologies | information technology (software development center) | India | 300 000 | 3.57% | 8 400 000 |
| N828/2006 | PL | Stargard Szczeciński | Stargardzki | Bridgestone | manufacturing of bus and truck radial tyres | Japan | 28 380 000 | 16.03% | 177 000 000 |
| N901/2006 | PL | Łysomice | Bydgosko-toruński | Orion Electric | manufacturing of communication equipment, consumer electronics | Japan | 21 130 000 | 49.81% | 42 420 000 |
| N903/2006 | PL | Siemianowice Śląskie | Katowicki | Johnson Controls | manufacturing metal parts to car seats | United States | 17 600 000 | 49.58% | 35 500 000 |
| N904/2006 | PL | Nowa Sól | Zielonogórski | Funai Electric | manufacturing of consumer electronics (television and radio receivers) | Japan | 7 800 000 | 44.83% | 17 400 000 |
| N905/2006 | PL | Kobierzyce | Wrocławski | Toshiba Television | manufacturing of LCD TV sets and communication equipment | Japan | 22 100 000 | 49.88% | 44 300 000 |
| SA33643/2011 | PL | Poznań | Miasto Poznań | McKinsey EMEA Shared Services | accounting, bookkeeping and auditing activities | United States | 180 000 | 2.07% | 8 690 000 |
| SA35012/2012 | PL | Wrocław | Miasto Wrocław | UPS Polska | accounting, bookkeeping and auditing activities | United States | 190 000 | 3.59% | 5 290 000 |
| SA35030/2012 | PL | Cracow | Miasto Kraków | State Street Services | financial services, information technology | United States | 880 000 | 6.83% | 12 880 000 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SA35141/2012 | PL | Szczeciń | Miasto Szczecin | Metro Services | accounting, bookkeeping and auditing activities | Germany | 280 000 | 4.47% | 6 260 000 |
| SA35197/2012 | PL | Wrocław | Miasto Wrocław | Nokia Siemens Networks | wireless telecommunication activities | Finland and Germany | 540 000 | 7.59% | 7 110 000 |
| SA35198/2012 | PL | Cracow | Miasto Kraków | Euroclear Bank | financial services, data processing | Belgium | 650 000 | 4.03% | 16 100 000 |
| SA35202/2012 | PL | Tomaszów Mazowiecki | Piotrkowski | Boshoku Automotive | manufacturing of motor vehicles (production of parts and accessories for motor vehicles) | Japan | 350 000 | 5.47% | 6 400 000 |
| SA35250/2012 | PL | Bydgoszcz | Bydgosko-toruński | ATOS Origin IT Services | information technology | France | 520 000 | 4.29% | 12 100 000 |
| SA35251/2012 | PL | Gdańsk | Trójmiejski | Kainos Software | information technology | United Kingdom | 190 000 | 4.69% | 4 050 000 |
| XR8/2008 | PL | Gorzów Wielkoposki | Gorzowski | TPV Displays | manufacturing of plasma and LCD modules | Taiwan | 2 670 000 | 6.51% | 41 000 000 |
| XR9/2008 | PL | Radom | Radomski | Indesit | manufacturing of household appliances (dishwashers and washing machines) | Italy | 3 280 000 | 4.10% | 80 000 000 |
| SA.34355 | HU | Mohács | Baranya | Pannonia Ethanol Mohács Zrt | bioethanol production | Ireland | 38 434 000 | 36.43% | 105 492 000 |
| SA.38093 | HU | Rácalmás | Fejér | Hankook Tire | tyre manufacturing | South Korea | 57 954 000 | 18.97% | 305 546 000 |
| SA.38986 | HU | Gyöngyöshalász | Heves | Apollo Tyres | tyre manufacturing | India | 95 700 000 | 20.05% | 477 210 000 |
| N 338/2009 | PL | Szczeciń | Miasto Szczecin | UniCredit group | business services | Italy | 596 089 | 7.32% | 8 137 000 |
| N 649/2008 | PL | Łódz | Miasto Lódź | SWS Business Process Outsourcing | business services | Ireland | 265 668 | 2.82% | 9 405 000 |
| SA 34756 | PL | Środa Śląska | Wrocławski | Pittsburgh Glass Works | automotive glass manufacturing | United States | 14 907 659 | 30.00% | 49 692 197 |
| SA 35945 | PL | Środa Śląska | Wrocławski | BASF | manufacturing of automotive catalysts | Germany | 2 940 859 | 1.90% | 150 000 000 |
| SA 36062 | PL | Tychy | Tyski | General Motors | manufacture of motor vehicles | United States | 3 573 000 | 4.61% | 325 379 609 |
| SA 36370 | PL | Wałbrzych | Wałbrzyski | Mando Corporation | manufacture of automotive components | South Korea | 3 599 202 | 3.90% | 92 287 330 |
| SA 36731 | PL | Gdynia | Trójmiejski | WNS Global Services | business services | United Kingdom | 496 587 | 2.55% | 19 490 599 |
| SA 36732 | PL | Warszawa, Łódz, Poznan | Miasto Warszawa, Miasto Łódz, Miasto Poznań | Samsung Electronics | manufacture of consumer electronics products | South Korea | 850 734 | 5.54% | 15 350 669 |
| SA 36814 | PL | Wrocław | Miasto Wrocław | BNY Mellon | business services | United States | 638 491 | 4.72% | 13 534 749 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SA 36888 | PL | Cracow | Miasto Kraków | PerkinElmer Shared Services | business services | United States | 277 227 | 2.66% | 10 406 995 |
| SA 37077 | PL | Torun | Bydgosko-toruński | Itella Information | business services | Finland | 323 717 | 5.74% | 5 638 340 |
| SA 37078 | PL | Cracow | Miasto Kraków | Airline Accounting Center (Lufthansa) | business services | Germany | 425 786 | 3.07% | 13 893 155 |
| SA 37087 | PL | Chrzanów | Oświęcimski | Valeo Autosystemy | manufacture of other parts and accessories for motor vehicles | France | 474 018 | 2.10% | 22 573 000 |
| SA 37344 | PL | Cracow, Warszawa | Miasto Kraków, Miasto Wasrszawa | Samsung Electronics | software development | South Korea | 835 171 | 5.94% | 14 061 231 |
| SA 37515 | PL | Cracow | Miasto Kraków | Capita Polska | accounting, bookkeeping and auditing activities; tax consultancy | United Kingdom | 496 409 | 3.70% | 13 416 459 |
| SA 37518 | PL | Wrocław | Miasto Wrocław | Hewlett-Packard | accounting, bookkeeping and auditing activities; tax consultancy | United States | 707 263 | 3.70% | 19 115 228 |
| SA 38316 | PL | Cracow | Miasto Kraków | Cisco Systems | business services and information technology | United States | 703 404 | 1.80% | 39 078 033 |
| SA 38444 | PL | Łódz | Miasto Lódź | Nordea Bank | business services | Sweden | 307 956 | 3.98% | 7 728 887 |
| SA 38532 | PL | Wrocław | Miasto Wrocław | Parker Hannifin | business services | United States | 298 324 | 2.96% | 10 073 638 |
| SA 38746 | PL | Olsztyn | Olsztyński | Michelin Polska | manufacture of rubber tyres and tubes | France | 6 752 751 | 7.33% | 92 124 845 |
| X128/2010 | PL | Polkowice | Legnicko-głogowski | Volkswagen | manufacture of motor vehicles | Germany | 2 923 830 | 4.91% | 59 606 148 |
| X129/2010 | PL | Łódz | Miasto Lódź | Fujitsu Services | computer programming and consultancy | Japan | 349 860 | 3.00% | 11 662 000 |
| X130/2010 | PL | Rzeszów | Rzeszowski | MTU Aero Engines Polska | Manufacture of air and spacecraft and related machinery | Germany | 3 120 061 | 4.83% | 64 563 029 |
| X131/2010 | PL | Katowice | Katowicki | Steria Polska | computer programming and consultancy | France | 599 760 | 7.34% | 8 171 117 |
| X2000/2009 | PL | Cracow | Miasto Kraków | HCL Poland | computer programming | India | 292 383 | 3.70% | 7 902 243 |
| X281/2009 | PL | Cracow | Miasto Kraków | Nidec Motors & Actuators | manufacture of parts and accessories for motor vehicles | United States | 669 900 | 5.20% | 13 300 776 |
| X455/2009 | PL | Bielany Wrocławskie; Skarbimierz | Wrocławski; Nyski | Cadbury Wedel | manufacture of cocoa, chocolate and sugar confectionery | United Kingdom | 3 275 580 | 1.48% | 221 322 972 |
| X655/2009 | PL | Wałbrzych | Wałbrzyski | Toyota Manufacturing | manufacture of bearings, gears, gearing and driving elements | Japan | 2 457 452 | 2.38% | 103 271 124 |

*Source*: the author's own compilation based on the European Commission's State Aid Register (Available at http://ec.europa.eu/competition/elojade/isef/index.cfm?clear=1&policy_area_id=3)

## A3.6: Subsidized large foreign investments in the Visegrad countries falling under the block exemption regulations (2003-2014)

| Case number | Country | Location | Region | Aid beneficiary | Sector | Country of investor | Aid amount (EUR) | Aid intensity (%)* | Total investment (EUR) |
|---|---|---|---|---|---|---|---|---|---|
| MF4/2004 | HU | Székesfehérvár | Fejér | Denso Manufacturing | Manufacture of motor vehicles and engine parts | Japan | 11 200 000 | 12.00 GGE | 93 333 333 |
| MF15/2004 | CZ | Jihlava | Vysočina kraj | Kronospan | Manufacture of carpentry and joinery | Austria | 31 470 000 | 38.79 GGE | 81 129 156 |
| MF2/2005 | HU | Visonta | Heves | Mátrai Erömü Részvénytársaság | Power generation | Germany | 26 758 993 | 46.92 GGE | 57 031 101 |
| MF3/2005 | HU | Kazincbarcika | Borsod-Abaúj-Zemplén | Linde Gáz Magyarország Rt. | Power generation | Germany | 26 992 920 | 47.57 GGE | 56 743 577 |
| MF7/2005 | HU | Dunavarsány | Pest | Ibiden Hungary Ltd | Manufacture of parts and accessories for motor vehicles | Japan | 8 568 000 | 8.54 GGE | 100 327 868 |
| MF8/2005 | HU | Tatabánya | Komárom-Esztergom | AGC Automotive Hungary Ltd | Manufacture of automotive glass | Japan | 29 900 000 | 23.00 GGE | 130 000 000 |
| MF10/2005 | HU | Nyíregyháza | Szabolcs-Szatmár-Bereg | Michelin Hungaria Tyre Manufacture | Manufacture of rubber tyres and tubes | France | 5 800 000 | 10.00 GGE | 58 000 000 |
| MF18/2005 | HU | Székesfehérvár | Fejér | Alcoa-Köfém Kft. | Manufacture of basic iron and steel and of ferro-alloys | United States | 9 058 000 | 13.64 GGE | 66 407 624 |
| MF8/2006 | HU | Tatabánya | Komárom-Esztergom | Bridgestone Manufacturing Ltd | Manufacture of rubber tyres and tubes | Japan | 36 460 000 | 24.18 NGE | 150 785 773 |
| MF10/2006 | HU | Kazincbarcika | Borsod-Abaúj-Zemplén | Linde Gáz Magyarország Rt. | Power generation | Germany | 1 220 000 | 2.30 GGE | 53 043 478 |
| MF13/2006 | HU | Nyergesújfalu | Komárom-Esztergom | Holcim Hungaria Cementipari Kft. | Manufacture of cement | Switzerland | 37 500 000 | 22.52 NGE | 166 518 650 |
| MF20/2006 | HU | Gyöngyös | Heves | Robert Bosch Elektronikai Kft. | Manufacture of electric appliances | Germany | 17 499 000 | 29.17 GGE | 59 989 715 |
| MF23/2006 | HU | Pécs | Baranya | Elcoteq Elektronikai Kft. | Manufacture of electronic valves and tubes and other electronic components | Finland | 23 380 515 | 45.85 NGE | 50 993 489 |
| MF25/2006 | HU | Dunaújváros | Fejér | Dunafin Gyártó és Szolgáltató Kft. | Manufacture of paper and paperboard | Austria | 15 378 000 | 26.72 GGE | 57 552 395 |
| MF26/2006 | HU | Göd | Pest | Samsung SDI Magyarország Rt. | Manufacture of electric appliances | South Korea | 18 273 000 | 31.50 GGE | 58 009 523 |
| MF30/2006 | PL | Dabrowa Gornicza | Sosnowiecki | Saint-Gobain Glass Polska SP z.o.o. | Manufacture of glass and glass products | France | 5 330 722 | 9.55 GGE | 55 819 078 |
| MF32/2006 | PL | Lubin | Legnicko-głogowski | KGHM Polska Miedz SA | Manufacture of copper products | Canada | 8 338 710 | 13.75 GGE | 60 645 163 |
| MF34/2006 | HU | Tatabánya | Komárom-Esztergom | Grundfos Magyarország Kft. | Manufacture of pumps and compressors | Denmark | 16 794 136 | 33.38 GGE | 50 311 971 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MF5/2007 | CZ | Pisek | Jihočeský kraj | Faurecia Automotive | Manufacture of parts and accessories for motor vehicles | France | 27 745 000 | 39.28 GGE | 70 633 910 |
| MF6/2007 | CZ | Ostrava | Moravskoslezský kraj | Sungwoo Hitech | Manufacture of structural and fabricated metal products | South Korea | 32 438 300 | 40.67 GGE | 79 759 773 |
| MF7/2007 | HU | Rétság | Nógrád | Energo Solar Napelemgyártó Kft. | Power generation | Switzerland | 25 910 084 | 48.30 NGE | 53 644 066 |
| MF8/2007 | HU | Tatabánya | Komárom-Esztergom | Genesis Solar Napelemgyártó Kft. | Power generation | United States | 35 575 177 | 38.54 NGE | 92 307 153 |
| MF9/2007 | CZ | Mosnov | Moravskoslezský kraj | Plakor Czech s.r.o. | Manufacture of plastic products | South Korea | 27 650 800 | 45.63 GGE | 60 597 852 |
| MF10/2007 | CZ | Pisek | Jihočeský kraj | AISIN IA Czech | Manufacture of parts and accessories for motor vehicles | Japan | 26 565 300 | 43.80 GGE | 60 651 369 |
| MF11/2007 | CZ | Liberec | Liberecký kraj | Faerch Plast | Manufacture of plastic products | Denmark | 31 709 600 | 38.61 GGE | 82 127 946 |
| MF12/2007 | CZ | Hustopeče | Jihomoravský kraj | Hill´s Pet Nutrition Manufacturing. | Manufature of prepared pet foods | United States | 33 547 300 | 37.37 GGE | 89 770 671 |
| MF13/2007 | CZ | Žatec | Ústecký kraj | Hitachi Home Electronics | Manufacture of radio, television and communication equipment and apparatus | Japan | 27 064 600 | 44.74 GGE | 60 493 071 |
| MF14/2007 | CZ | Stankovice | Ústecký kraj | IPS Alpha Technology Europe | Manufacture of electronic valves and tubes and other electronic components | Japan | 34 579 000 | 37.94 GGE | 91 141 275 |
| MF15/2007 | CZ | Jablonec nad Nisou | Liberecký kraj | Lucas Varity | Manufacture of parts and accessories for motor vehicles | United Kingdom | 27 545 600 | 42.53 GGE | 64 767 458 |
| MF49/2007 | HU | Jászfényszaru | Jász-Nagykun-Szolnok | Samsung Electronics Magyarország ZRt. | Manufacture of electric appliances | South Korea | 37 498 354 | 36.81 GGE | 101 870 019 |
| MF54/2007 | HU | Eger | Heves | ZF Hungária Kft. | Manufacture of motor vehicles and engine parts | Germany | 16 728 569 | 32.48 GGE | 51 504 214 |
| MF85/2007 | HU | Dunaújváros | Fejér | W. Hamburger Paper Manufacturing | Manufacture of paper and paperboard | Germany | 17 829 650 | 11.67 GGE | 152 781 919 |
| MF4/2008 | PL | Łódz | Lódzki | Indesit Company Polska Sp. Z.o.o. | Manufacture of electric domestic appliances | Italy | 25 278 667 | 32.13 NGE | 78 676 212 |
| MF8/2008 | HU | Királyegyháza | Baranya | NOSTRA Cement | Manufacture of cement | France and Austria | 12 557 000 | 7.54 GGE | 166 538 461 |
| MF10/20083 | HU | Dunavarsány | Pest | Ibiden Hungary Gyártó Kft. | Manufacture of parts and accessories for motor vehicles | Japan | 29 730 000 | 17.67 NGE | 168 251 273 |
| MF11/2008 | HU | Esztergom | Komárom-Esztergom | Magyar Suzuki Zrt. | Manufacture of motor vehicles | Japan | 4 001 911 | 2.82 GGE | 141 911 737 |
| MF14/2008 | HU | Budapest | Budapest | IT Services Hungary Szolgáltató Kft | business services, information and communication technology | Germany | 8 286 312 | 9.30 GGE | 89 100 129 |
| MF16/2008 | HU | Tatabánya | Komárom-Esztergom | Coloplast Hungary Gyártó Kft | Manufacture of plastic products | Denmark | 36 270 000 | 38.15 GGE | 95 072 083 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MF26/2008 | CZ | Kopřivnice | Moravskoslezský kraj | Brose CZ | Manufacture of other parts and accessories for motor vehicles | Germany | 22 150 000 | 32.53 GGE | 68 090 992 |
| MF29/2008 | HU | Budapest | Budapest | Morgan Stanley | business services, information and communication technology | United States | 16 450 780 | 27.49 GGE | 59 842 779 |
| MF34/2008 | CZ | Solnice | Královéhradecký kraj | Skoda Auto | Manufacture of motor vehicles | Germany | 22 120 000 | 36.50 GGE | 60 602 739 |
| MF38/2008 | HU | Debrecen | Hajdú-Bihar | TEVA Gyógyszergyár Zrt. | Manufacture of pharmaceutical products | Israel | 32 437 380 | 33.76 GGE | 96 082 286 |
| MF39/2008 | HU | Székesfehérvár | Fejér | Alcoa Köfém Kft. | Manufacture of basic iron and steel and of ferro-alloys | United States | 21 813 000 | 23.76 GGE | 91 805 555 |
| MF1/2009 | HU | Esztergom | Komárom-Esztergom | Magyar Suzuki Zrt. | Manufacture of motor vehicles | Japan | 29 734 000 | 12.90 GGE | 230 496 124 |
| MF3/2009 | HU | Zalaszentiván | Zala | Starch Hungary Kft | Manufacture of starches and starch products | United States | 19 229 000 | 24.59 GGE | 78 198 454 |
| MF17/2009 | PL | Kobierzyce | Wrocławski | UPM Raflatac | Manufacture of paper and paperboard | Finland | 25 856 679 | 32.61 GGE | 79 290 643 |
| MF20/2009 | PL | Małkinia Górna | Ostrołęcko-siedlecki | Rockwool Polska | Manufacture of other non-metallic mineral products | Denmark | 22 230 000 | 35 GGE | 63 514 285 |
| MF21/2009 | PL | Dębica | Tarnobrzeski | Firma Oponiarska Dębica S.A | Manufacture of other chemical products | United States | 14 434 054 | 19.91 GGE | 72 496 504 |
| MF22/2009 | PL | Dabrowa Gornicza | Sosnowiecki | Saint-Gobain Glass Polska Sp. z o.o | Manufacture of flat glass | France | 24 613 474 | 29.36 GGE | 83 833 358 |
| MF23/2009 | PL | Poznan | Miasto Poznań | Kronospan Sp. z.o.o. Poznan | Manufacture of carpentry and joinery | Austria | 7 660 000 | 13.46 GGE | 56 909 361 |
| MF24/2009 | PL | Mniszków | Piotrkowski | "G-K" Sp. z o.o. | Manufacture of cement | N/A (Atlas Group company) | 29 521 000 | 29.51 GGE | 100 037 275 |
| MF25/2009 | PL | Wielbark | Olsztyński | Swedwood Poland Sp. z.o.o. | Manufacture of wood and wood products | Sweden | 27 750 000 | 45.49 GGE | 61 002 418 |
| MF26/2009 | PL | Jasionka | Rzeszowski | MTU Aero Engines Sp. z o.o | Manufacture of air and spacecraft and related machinery | Germany | 29 739 428 | 43.13 GGE | 68 952 997 |
| MF27/2009 | PL | Bielany Wrocławskie | Wrocławski | Cadbury Wedel Ss. Z o.o. | Manufacture of other food products (cocoa, chocolate and other sugar confectionary) | United Kingdom | 30 000 000 | 11.52 GGE | 260 416 666 |
| MF28/2009 | PL | Brzeg | Nyski | Cadbury Polska Sp. Z o.o. | Manufacture of other food products (cocoa, chocolate and other sugar confectionary) | United Kingdom | 32 319 000 | 40.18 GGE | 80 435 540 |
| MF31/2009 | PL | Grajewo | Suwalski | Pfleiderer MDF | Manufacture of wood and wood products | Germany | 28 500 000 | 36.54 NGE | 77 996 715 |
| MF32/2009 | PL | Szczeczinek | Koszaliński | Kronospan Polska Sp. z o.o | Manufacture of wood and wood products | Austria | 29 370 000 | 42.64 NGE | 68 878 986 |
| MF34/2009 | CZ | Mělnik | Středočeský kraj | Synthos S.A. | Manufacture of synthetic rubber in primary forms | Poland | 22 930 000 | 35.47 GGE | 64 646 179 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MF35/2009 | CZ | Cheb | Karlovarský kraj | apt Cheb s.r.o. | Manufactur of fabricated metal products | Germany | 22 616 000 | 35.85 GGE | 63 085 076 |
| MF41/2009 | HU | Makó | Csongrád | Fragflav Kft. (Givaudan) | Manufacture of othe food products | Switzerland | 28 045 000 | 45.10 GGE | 62 184 035 |
| MF53/2009 | HU | Budapest | Budapest | Temic Telefunken Microelectronic | Manufacture of electronic integrated circuits | Germany | 14 325 000 | 15.05 GGE | 95 182 724 |
| MF25/2010 | HU | Budapest | Budapest | BP Business Centre | business services, information and communication technology | United Kingdom | 12 665 664 | 17.55 GGE | 72 169 025 |
| MF27/2010 | HU | Gödöllő | Pest | Teva Zrt. | Manufacture of pharmaceutical preparations | Israel | 16 689 866 | 27.24 GGE | 61 269 698 |
| MF28/2010 | HU | Környe | Komárom-Esztergom | Beckton Dickinson Hungary | Manufacture of syringes, with or without needles | United States | 34 011 512 | 39.53 GGE | 86 039 747 |
| SA.32625 | SK | Nitra | Nitriansky | Sony Slovakia | Manufacture of consumer electronics | Japan | 26 041 000 | 35.31 GGE | 73 749 645 |
| SA.33526 | CZ | Žatec | Ústecký kraj | JC Interiors Czecha | Manufacture of agricultural and forestry machinery | United States | 21 231 000 | 37.90 GGE | 56 018 469 |
| SA.33533 | CZ | Mladá Boleslav | Středočeský kraj | Škoda Auto | Manufacture of motor vehicles | Germany | 29 590 000 | 30.20 GGE | 97 980 132 |
| SA.33559 | PL | Chmielów | Tarnobrzeski | Pilkington Automotive Poland | Manufacture of glass and glass products | United Kingdom | 25 481 992 | 32.35 GGE | 78 769 681 |
| SA.33703 | HU | Szentgotthárd | Vas | Opel Szentgotthárd | Manufacture of motor vehicles | Germany | 22 500 000 | 5.78 GGE | 389 273 356 |
| SA.33713 | HU | Budapest | Budapest | Csepel III. Erőmű Kft. | Power generation | Switzerland | 18 749 912 | 6.36 GGE | 294 809 937 |
| SA.33770 | PL | Legnica | Legnicko-głogowski | Volkswagen Motor Polska | Manufacture of motor vehicles | Germany | 16 240 453 | 30.00 GGE | 54 134 843 |
| SA.33771 | PL | Piechcin | Włocławski | Lafarge Cement S.A. | Manufacture of cement | France | 24 923 487 | 36.00 GGE | 69 231 908 |
| SA.36032 | PL | Kostrzyn nad Odrą | Gorzowski | Green Source Poland | Manufacture of chemical products | Spain | 37 500 000 | 10.49 GGE | 357 483 317 |
| SA.33991 | HU | Százhalombatta | Pest | MOL-CEZ European Power Kft. | Electricity, gas, steam and air conditioning supply | Czech Republic | 22 338 008 | 4.41 GGE | 506 530 793 |
| SA.34008 | PL | Wrocław | Miasto Wrocław | IBM Global Services Delivery Centre | business services, information and communication technology | United States | 28 372 536 | 28.73 GGE | 98 755 781 |
| SA.34010 | PL | Orla | Lomżyński | Swedspan Polska | Wood processing and manufacture of wood-based panels | Sweden | 37 045 794 | 25.00 GGE | 148 183 176 |
| SA.34012 | PL | Strzelce Opolskie | Opolski | Kronospan OSB | Manufacture of carpentry and joinery | Austria | 31 926 581 | 30.00 GGE | 106 421 936 |
| SA.34013 | PL | Krosno | Krośnieński | Goodrich Aerospace Poland | Manufacture of fluid power | United States | 20 720 235 | 38.68 GGE | 53 568 342 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SA.34014 | PL | Gliwice | Gliwicki | General Motors Manufacturing | Manufacture of motor vehicles | Unites States | 15 631 803 | 30.00 GGE | 52 106 010 |
| SA.34016 | PL | Środa Śląska | Wrocławski | Pittsburg Glass | Manufacture of flat glass | United States | 15 531 238 | 30.00 GGE | 51 770 793 |
| SA.34015 | PL | Wronki | Poznański | Samsung Electronic Poland | Manufacture of electronic domestic appliances | South Korea | 16 370 128 | 30.00 GGE | 54 567 093 |
| SA.34017 | PL | Radomsk | Piotrkowski | Jysk Sp. z o.o. | Wholesale trade | Denmark | 19 711 012 | 30.00 GGE | 65 703 373 |
| SA.34018 | PL | Poznan | Miasto Poznań | Bridgestone Poznan | Manufacture of rubber tyres and tubes | Japan | 28 022 943 | 25.00 GGE | 112 091 772 |
| SA.34019 | PL | Dąbrowa Górnicza | Sosnowiecki | Brembo Poland | Manufacture of parts and accessories for motor vehicles | Italy | 27 231 368 | 30.91 GGE | 88 098 893 |
| SA.34618 | PL | Bielsko-Biała | Bielski | Fiat Powertrain Technologies Poland | Manufacture of motor vehicles | Italy | 26 999 919 | 15.00 GGE | 179 999 460 |
| SA.34929 | HU | Csömör | Pest | Hyginett Magyar-Amerikai Kft | Manufacture of sanitary towels and tampons, napkins and napkin liners | United States | 26 658 777 | 47.07 GGE | 56 636 449 |
| SA.35025 | PL | Legnica | Legnicko-głogowski | PCC P4 | Manufacture of other organic basic chemicals | Germany | 16 124 798 | 30.00 GGE | 53 749 326 |
| SA.35032 | PL | Ostrołęka | Ostrołęcko-siedlecki | Stora Enso Narew | Manufacture of paper and paperboard | Finland | 21 917 247 | 15.30 GGE | 143 249 980 |
| SA.35070 | HU | Szolnok | Jász-Nagykun-Szolnok | BBCA Szolnok Biokémia Zrt. | Manufacture of other organic basic chemicals | China | 35 909 997 | 38.35 GGE | 93 637 541 |
| SA.36259 | CZ | Štětí | Ústecký kraj | Mondi Štětí White Paper | Manufacture of paper and paperboard | South Africa, United Kingdom | 15 056 061 | 22.50 GGE | 66 915 826 |
| SA.36371 | PL | Wałbrzych | Wałbrzyski | Ronal Polska | Manufacture of other parts and accessories for motor vehicles | Switzerland | 3 409 581 | 4.26 GGE | 80 037 112 |
| SA.36372 | PL | Wałbrzych | Wałbrzyski | Mando Corporation Poland | Manufacture of other parts and accessories for motor vehicles | South Korea | 14 376 883 | 15.80 GGE | 90 992 930 |
| SA.36689 | PL | Kamionka | Pilski | Recycling Park | Manufacture of hollow glass | Cyprus | 25 206 806 | 30.00 GGE | 84 022 686 |
| SA.36690 | PL | Polkowice | Legnicko-głogowski | Sanden Manufacturing | | Japan | 17 234 725 | 30.00 GGE | 57 449 083 |
| SA.36920 | SK | Puchov | Trenčiansky | Continental Matador Rubber | Manufacture of rubber tyres and tubes | Germany | 18 750 990 | 8.01 GGE | 234 094 756 |
| SA.37277 | HU | Győr | Győr-Moson-Sopron | AUDI Hungária | Manufacture of motor vehichles | Germany | 5 642 100 | 3.68 GGE | 153 317 934 |
| SA.37353 | PL | Stargard Szczeciński | Stargardzki | Bridgestone Stargard | Manufacture of rubber tyres and tubes | Japan | 117 675 600 | 28.32 GGE | 415 521 186 |
| SA.37938 | PL | Sandomierz | Sandomiersko-jędrzejowski | Pilkington Automotive Poland | Shaping and processing of flat glass | United Kingdom | 18 195 527 | 29.50 GGE | 61 679 752 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SA.37939 | PL | Szczeczin | Miasto Szczeczin | Bilfinger Crist Offshore | Manufacture of metal structures and parts of structures | Germany, United Kingdom | 20 622 330 | 29.77 GGE | 69 272 186 |
| MF15/2008 | HU | N/A | All regions of Hungary | Magyar Telekom Távközlési Nyrt. | Information and communication technology | Germany | 22 670 230 | 25.41 GGE | 89 217 749 |

*Source*: the author's own compilation based on the European Commission's State Aid Register – Transparency system for regional aid for large investment projects (Available at http://ec.europa.eu/competition/state_aid/register/msf_2014.pdf)
GGE = gross grant equivalent
NGE = net grant equivalent

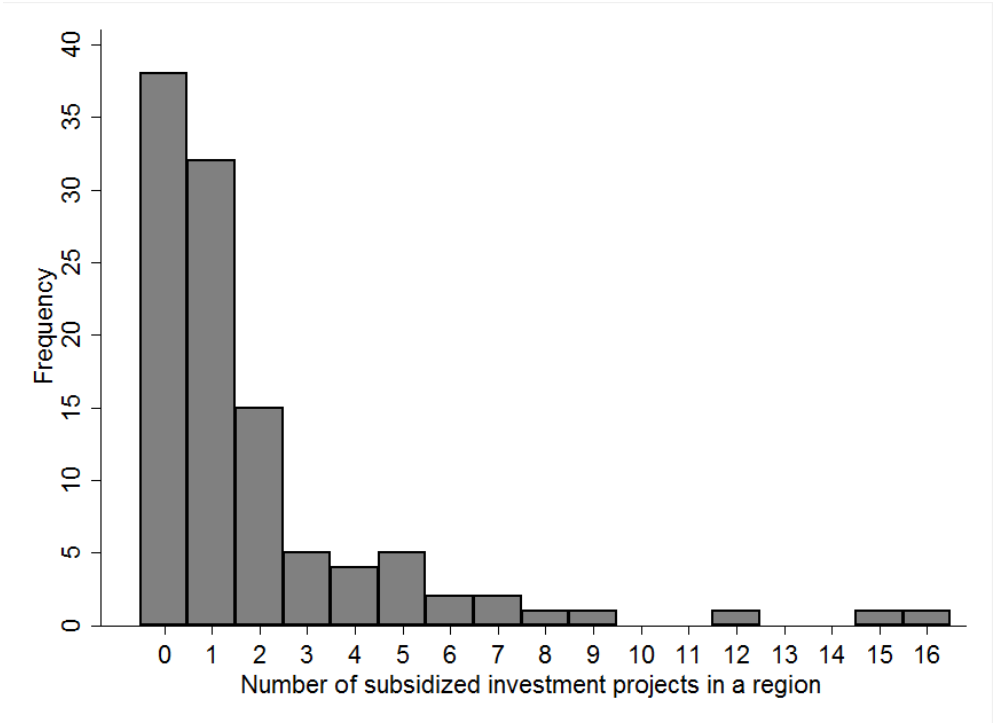
## A3.7 A description of the variables (Models 7-10)

| Name | Level | Description | Source |
|---|---|---|---|
| Large investment project | NUTS 3 | Binary variable indicating the presence of at least one subsidized large investment project between 2003 and 2014 | the author's own calculation based on European Commission State Aid Register |
| Number of large investment projects | NUTS 3 | Count variable indicating the number of subsidized large investment projects between 2003 and 2014 | the author's own calculation based on European Commission State Aid Register |
| GDP per capita (2002) | NUTS 3 | per capita gross domestic product in euro in constant 2000 prices | the author's own calculation based on data obtained from central statistical offices of the V4 |
| Urban population (2002) | NUTS 3 | percentage share of town and city residents from the total population | central statistical offices of the V4 |
| Unemployment (2002) | NUTS 3 | the number of registered job applicants per 1000 employed expressed as a percentage of the national average | the author's own calculation based on data obtained from central statistical offices of the V4 |
| Western region | NUTS 3 | dummy variable coded for all NUTS 3 regions that have a common border with Germany or Austria | |

**Descriptive statistics of the variables (Models 7-10)**

| All NUTS 3 regions | N | Mean | Std. Deviation | Skewness | Kurtosis |
|---|---|---|---|---|---|
| Logarithm of GDP per capita (2002) | 108 | 8.438 | .328 | 1.307 | 5.270 |
| Share (%) of urban population (1995) | 108 | 60.513 | 18.007 | .747 | 3.064 |
| Unemployment (2002) | 108 | 99.617 | 42.636 | .491 | 2.820 |

**Histogram of the dependent variable in Model 9 and 10**



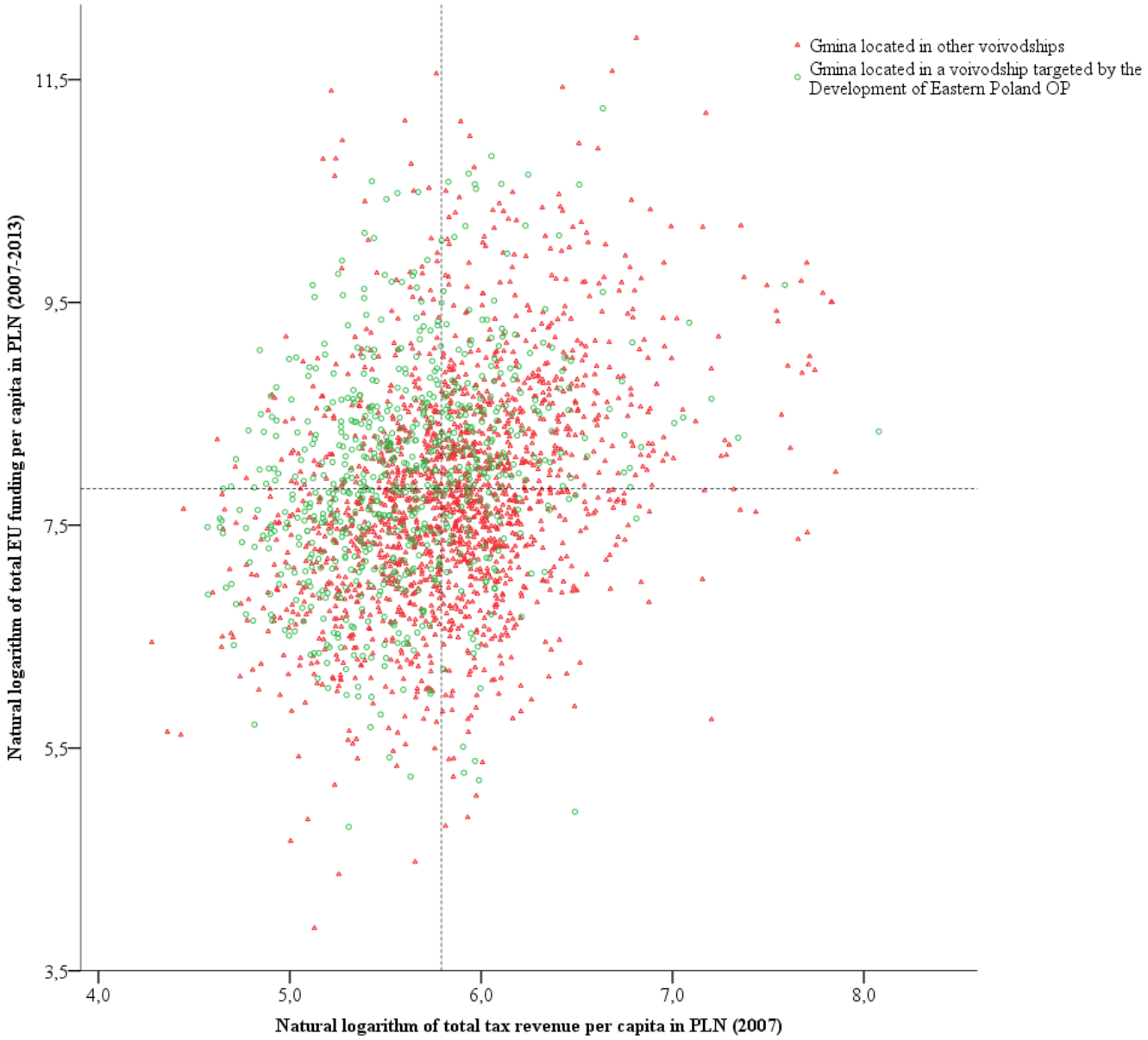

Mean = 1.889; Variance = 8.230

## A3.8 Correlation matrix of the independent variables (Models 7-10)

| | GDP per capita in 2002 | Share of urban population in 2002 | Registered job applicants per 1000 employed in 2002 | Western region |
|---|---|---|---|---|
| GDP per capita in 2002 | 1 | | | |
| Share of urban population in 2002 | .741** | 1 | | |
| Registered job applicants per 1000 employed in 2002 | -.431** | -.341** | 1 | |
| Western region | .239* | .134 | -.020 | 1 |

* p < .05; ** p < .01

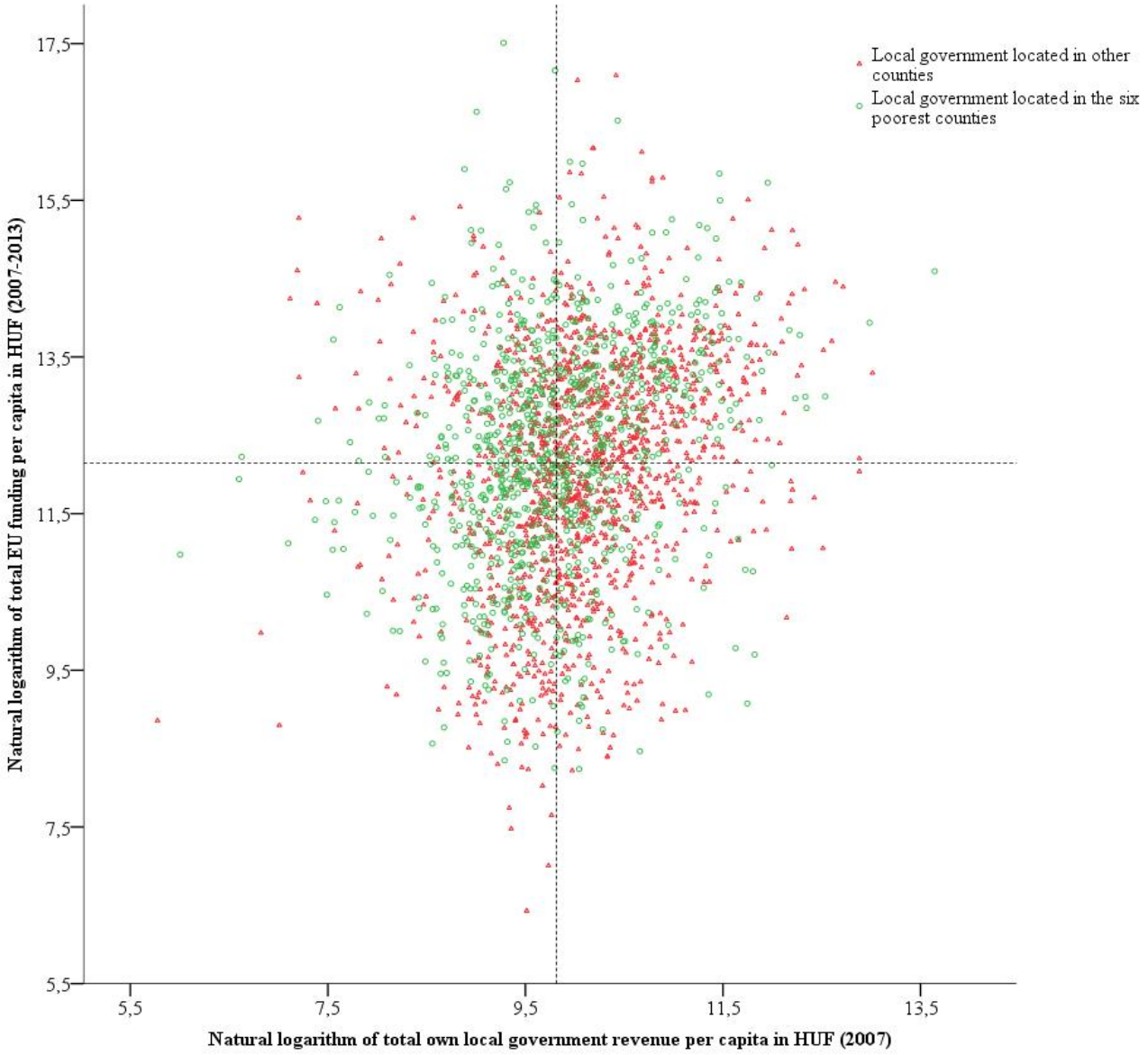
## A5.1: Distribution of EU funds per capita across Polish local governments (2007-2013)




*Notes*: The vertical reference line represents the country-level mean of logarithmic tax revenue per capita in PLN, while the horizontal reference line shows the country-level average of logarithmic total EU funding per capita in PLN. Number of gminas in the five eastern voivodships: 708; number of gminas in the rest of the country: 1770.

*Source*: the author's own calculation based on data from the Central Statistical Office of Poland (tax revenue and population size) and European Funds Portal - Portal Funduszy Europejskich (Structural Funds data)

## A5.2: Distribution of EU funds per capita across Hungarian local governments (2007-2013)




*Notes*: The vertical reference line represents the country-level mean of logarithmic tax revenue per capita in HUF, while the horizontal reference line shows the country-level average of logarithmic total EU funding per capita in HUF. Only those 2421 local governments are displayed in the chart which received EU funds during the 2007-2013 programming cycle. The six most backward counties (Békés, Borsod-Abaúj-Zemplén, Jász-Nagykun-Szolnok, Nógrád, Somogy, Szabolcs-Szatmár-Bereg) were determined according to the 2007 level of GDP per capita. Number of localities that received EU funds in the six most backward regions: 951. Number of localities that received EU funds in the rest of the country: 1470.

*Source*: the author's own calculation based on data from the Central Statistical Office of Hungary (GDP and population) and Prime Minister's Office, Department for Evaluation and Monitoring (Structural Funds data)

## A5.3: A description of the variables (Models 11 to 36)

**Poland**

| Name | Level | Description | Source |
|---|---|---|---|
| EU funds per capita | gmina | The total value of contracted Structural Funds grants per capita in PLN in the 2007-2013 programming period | the author's own calculation based on data obtained from the Polish European Funds Portal (http://www.funduszeeuropejskie.gov.pl/) |
| Tax revenue (2007) | gmina | the local government's total own tax revenue per inhabitant in PLN in 2007 | Central Statistical Office of Poland (http://stat.gov.pl/en/) |
| Own revenue (2007) | gmina | the local government's total own budget revenue per inhabitant in PLN in 2007 | Central Statistical Office of Poland |
| Private companies (2007) | gmina | Number of private companies per thousand inhabitants in 2007 | Central Statistical Office of Poland |
| Unemployment (2007) | gmina | The number of registered unemployed as a percentage of the working age population in 2007 | Central Statistical Office of Poland |
| NGOs (2007) | gmina | The number of non-profit organizations per inhabitant in 2007 | Central Statistical Office of Poland |
| Population (2007) | gmina | The number of inhabitants in 2007 | Central Statistical Office of Poland |
| PO share (2007) | gmina | The share of votes for the Civic Platform in the 2007 parliamentary elections | National Electoral Commission of Poland (http://pkw.gov.pl/) |
| PSL share (2007) | gmina | The share of votes for the Polish People's Party in the 2011 parliamentary elections | National Electoral Commission of Poland |
| PO share (2011) | gmina | The share of votes for the Civic Platform in the 2011 parliamentary elections | National Electoral Commission of Poland |
| PSL share (2011) | gmina | The share of votes for the Polish People's Party in the 2011 parliamentary elections | National Electoral Commission of Poland |
| PO mayor (2006-2014) | gmina | A dummy indicating that both in 2006 and in 2010 a mayor nominated by PO was elected in the local government | National Electoral Commission of Poland |
| PSL mayor (2006-2014) | gmina | A dummy indicating that both in 2006 and in 2010 a mayor nominated by PSL was elected in the local government | National Electoral Commission of Poland |
| GDP per capita (2007) | voivodship | The GDP per capita of the voivodship in PLN in 2007 | Central Statistical Office of Poland |
| Regional unemployment (2007) | voivodship | The number of registered unemployed in the voivodship expressed as a percentage of the working age population in 2007 | Central Statistical Office of Poland |
| Quality of government | voivodship | The regional quality of government index of the voivodship (scale: -3 to +2) | Charron et al. (2014). The data can be downloaded here: http://www.qog.pol.gu.se/ |
| Eastern voivodship | voivodship | A dummy indicating that the voivodship received funds from the Development for Eastern Poland operational programme | National Strategic Reference Framework of Poland for 2007-2013 |

| | | | |
|---|---|---|---|
| PO-PSL seat share in the regional council (2006) | voivodship | The share of PO and PSL representatives in the *sejmik*, the regional council following the 2006 local elections | National Electoral Commission of Poland |
| PO-PSL seat share in the regional council (2010) | voivodship | The share of PO and PSL representatives in the *sejmik*, the regional council following the 2010 local elections | National Electoral Commission of Poland |

**Hungary**

| | | | |
|---|---|---|---|
| EU funds per capita (I) | local gvt. | The total value of Structural Funds grants per capita in HUF contracted until 29 May 2010 | the author's own calculation based on data obtained from the Prime Minister's Office, Department of Monitoring and Evaluation |
| EU funds per capita (II) | local gvt. | The total value of Structural Funds grants per capita in HUF contracted after 29 May 2010 | the author's own calculation based on data obtained from the Prime Minister's Office, Department of Monitoring and Evaluation |
| Tax revenue (2007) | local gvt. | The local government's total own tax revenue per inhabitant in HUF in 2007 | Central Statistical Office of Hungary |
| Tax revenue (2010) | local gvt. | The local government's total own tax revenue per inhabitant in HUF in 2010 | Central Statistical Office of Hungary |
| Own revenue (2007) | local gvt. | The local government's total own budget revenue per inhabitant in HUF in 2007 | Central Statistical Office of Hungary |
| Own revenue (2010) | local gvt. | The local government's total own budget revenue per inhabitant in HUF in 2010 | Central Statistical Office of Hungary |
| Private companies (2007) | local gvt. | The number of registered private companies per thousand inhabitants in 2007 | Central Statistical Office of Hungary |
| Private companies (2010) | local gvt. | The number of registered private companies per thousand inhabitants in 2010 | Central Statistical Office of Hungary |
| Unemployment (2007) | local gvt. | The number of registered unemployed as a percentage of the working age population in 2007 | Central Statistical Office of Hungary |
| Unemployment (2010) | local gvt. | The number of registered unemployed as a percentage of the working age population in 2010 | Central Statistical Office of Hungary |
| No NGOs (2007) | local gvt. | A dummy variable representing the absence of non-profit organization in the locality in 2007 (N = 244) | Central Statistical Office of Hungary |
| No NGOs (2010) | local gvt. | A dummy variable representing the absence of non-profit organization in the locality in 2010 (N = 196) | Central Statistical Office of Hungary |
| Population (2007) | local gvt. | The number of inhabitants in 2007 | Central Statistical Office of Hungary |
| Population (2010) | local gvt. | The number of inhabitants in 2010 | Central Statistical Office of Hungary |

| | | | |
|---|---|---|---|
| MSZP-SZDSZ vote share (2006) | local gvt. | The aggregate share of votes MSZP and SZDSZ in the 2006 parliamentary elections | National Election Office |
| Fidesz vote share (2010) | local gvt. | The share of votes for Fidesz in the 2010 parliamentary elections | National Election Office |
| Mayor (2006) | local gvt. | Categorical variable indicating the party affiliation of the mayor elected in 2006 (1 = independent (N = 2764); 2 = MSZP-SZDSZ (N = 146); 3 = opposition-affiliated (N = 241) | National Election Office |
| Mayor (2010) | local gvt. | Categorical variable indicating the party affiliation of the mayor elected in 2010 (1 = independent (N = 2521); 2 = FIDESZ (N = 579); 3 = opposition-affiliated (N = 51) | National Election Office |
| Mayor and MP government-affiliated (2006) | local gvt. | Dummy indicating that both the mayor of the local government and the MP of the single mandate district are affiliated with the MSZP-SZDSZ government (N = 101) | National Election Office |
| Mayor and MP government-affiliated (2010) | local gvt. | Dummy indicating that both the mayor of the local government and the MP of the single mandate district are affiliated with the FIDESZ government (N = 566) | National Election Office |
| Mayor also government MP (2006) | local gvt. | Dummy indicating that the mayor of the local government is also an MP of the MSZP-SZDSZ government (N = 28) | National Election Office |
| Mayor also opposition MP (2006) | local gvt. | Dummy indicating that the mayor of the local government is also an MP of the opposition parties (N =21) | National Election Office |
| Mayor also government MP (2010) | local gvt. | Dummy indicating that the mayor of the local government is also an MP of the FIDESZ government (N = 69) | National Election Office |
| GDP per capita (2007) | county | GDP per capita of the county in million HUF in 2007 | Central Statistical Office of Hungary |
| GDP per capita (2010) | county | GDP per capita of the county in million HUF in 2010 | Central Statistical Office of Hungary |
| Regional unemployment (2007) | county | The number of registered unemployed in 2007expressed as a percentage of the working age population | Central Statistical Office of Hungary |
| Regional unemployment (2010) | county | The number of registered unemployed in 2010 expressed as a percentage of the working age population | Central Statistical Office of Hungary |
| Government vote share (2006) | county | The aggregate share of votes for MSZP and SZDSZ in the 2006 parliamentary elections | National Election Office |
| Government vote share (2010) | county | Share of votes for FIDESZ in the 2010 parliamentary elections | National Election Office |
| MSZP-SZDSZ MP (2006) | county | Dummy indicating that the Member of Parliament elected in the single mandate district to which the locality belongs is affiliated with the socialist-liberal government | National Election Office |

## A5.4: Descriptive statistics

**Descriptive statistics of the Polish variables (original scales, N = 2478), Models 11 to 22**

| | Min. | Max. | Mean | SD | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| EU funds per capita | 48.6 PLN | 143 286 PLN | 4502 PLN | 8098 PLN | 7.2 | 80.2 |
| Population (2007) | 1370 | 1 706 624 | 15 382 | 50 700 | 19.9 | 558.4 |
| Tax revenue (2007) | 72.1 PLN | 18 447 PLN | 384.9 PLN | 445.6 PLN | 27.6 | 1092.9 |
| Own revenue (2007) | 239.4 PLN | 33 299 PLN | 932.8 PLN | 909.3 PLN | 19.8 | 659.7 |
| Private companies (2007) | 21.8 | 375.9 | 66.5 | 30.6 | 2.4 | 16.8 |
| Unemployment (2007) | 1.3 % | 31.2 % | 8.9 % | 4.1 % | .76 | 3.7 |
| NGOs (2007) | .24 | 8.9 | 2.2 | .83 | 1.3 | 7.1 |
| PO vote share (2007) | 2.4 % | 69.6 % | 29.9 % | 13.7 % | .15 | 2.1 |
| PO vote share (2011) | 1.73 % | 70.3 % | 29.1 % | 13.5 % | .08 | 1.9 |
| PSL vote share (2007) | 1.63 % | 72.7 % | 16.8 % | 10.8 % | 1.0 | 4.2 |
| PSL vote share (2011) | 1.1 % | 76.6 % | 16.3 % | 10.9 % | .98 | 3.9 |
| GDP per capita (2007) | 20 895 PLN | 49 350 PLN | 29 937 PLN | 8408 PLN | 1.3 | 3.9 |
| Regional unemployment (2007) | 5.1 % | 10.7 % | 7.4 % | 1.7 % | .39 | 1.9 |
| Quality of government | -.22 | .29 | -.02 | .12 | .42 | 3.4 |
| PO-PSL seat share (2006) | 36.7 % | 60.6 % | 48.4 % | 6.3 % | .29 | 1.9 |
| PO-PSL seat share (2010) | 42.4 % | 70.0 % | 56.3 % | 7.3 % | -.21 | 2.4 |

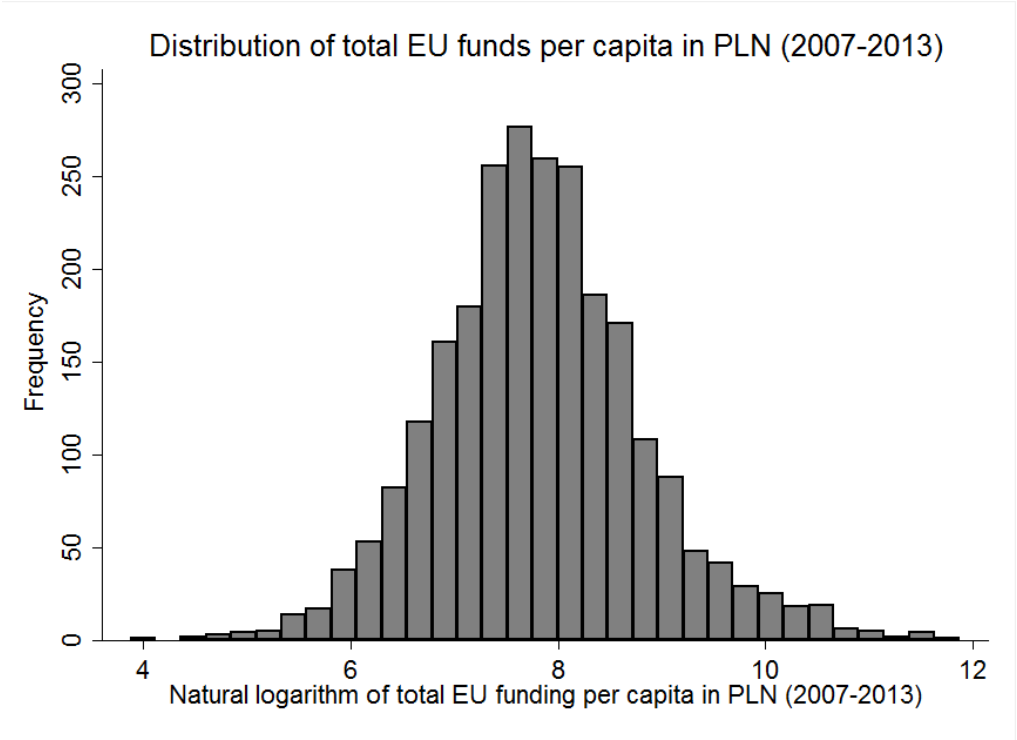
## A5.4 (cont.): Descriptive statistics

**Descriptive statistics of the Hungarian variables (original scales without Budapest, N = 3151), Models 23 to 36**

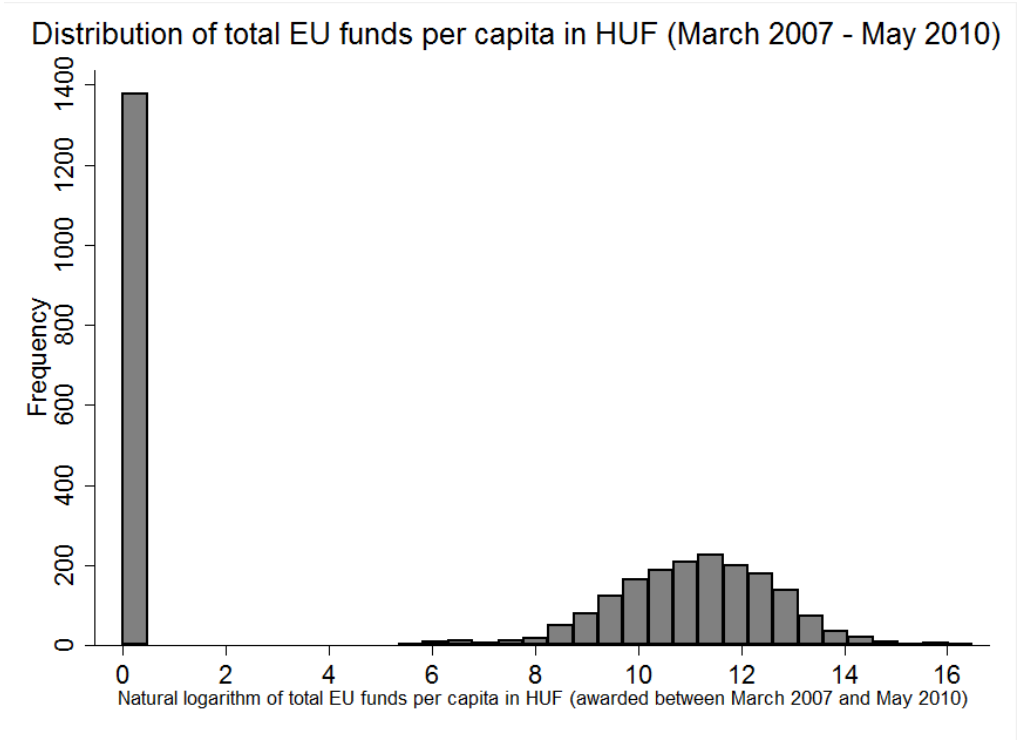
| | Min. | Max. | Mean | SD | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| EU funds per capita (I) | 0 HUF | 14 906 647 HUF | 131 552 HUF | 557 848 HUF | 13.9 | 264.7 |
| EU funds per capita (II) | 0 HUF | 40 177 768 HUF | 284 201 HUF | 1 259 739 HUF | 19.9 | 503.7 |
| Tax revenue (2007) (N = 3090) | 7 HUF | 776 206 HUF | 15 358 HUF | 32 768 HUF | 10.7 | 193 |
| Tax revenue (2010) (N = 3150) | 0 HUF | 604 618 HUF | 16 657 HUF | 32 447 HUF | 7.9 | 98.8 |
| Own revenue (2007) | 27 HUF | 863 583 HUF | 28 798 HUF | 40 808 HUF | 8.2 | 125.6 |
| Own revenue (2010) | 4 HUF | 716 051 HUF | 34 226 HUF | 45 514 HUF | 5.9 | 59.6 |
| Private companies (2007) (N = 3143) | 0 | 446 | 70.6 | 41.3 | 2.1 | 11.0 |
| Private companies (2010) | 4 | 645 | 141 | 70.5 | 1.4 | 7.1 |
| Unemployment (2007) (N = 3144) | 0 % | 48.8 % | 11.3 % | 7.9 % | 1.2 | 4.6 |
| Unemployment (2010) | 0 % | 51.1 % | 13.3 % | 7.9 % | 1.2 | 4.5 |
| Population (2007) | 16 | 206 073 | 2690 | 9240 | 12.3 | 201.8 |
| Population (2010) | 13 | 205 468 | 2673 | 12.3 | 12.3 | 200.9 |
| MSZP-SZDSZ vote share (2006) (N = 3143) | 0 % | 99.4 % | 43.4 % | 12.1 % | .05 | 3.1 |
| FIDESZ vote share (2010) | 20.8 % | 98.6 % | 60.6 % | 11.1 % | -.04 | 3.1 |
| GDP per capita (2007) | 1 143 000 HUF | 2 811 000 HUF | 1 858 100 HUF | 408 445 HUF | .71 | 3.1 |
| GDP per capita (2010) | 1 201 000 HUF | 3 138 000 HUF | 1 948 591 HUF | 434 986 HUF | 1.0 | 4.1 |
| Regional unemployment (2007) | 2.8 % | 13.4 % | 8.2 % | 3.4 % | .03 | 1.8 |
| Regional unemployment (2010) | 4.5 % | 15.9 % | 10.3 % | 3.4 % | -.04 | 1.9 |
| Government vote share (2006) | 41.4 % | 55.4 % | 48.1 % | 22.2 % | .12 | 1.7 |
| Government vote share (2010) | 46.0 % | 63.2 % | 54.9 % | 25.0 % | -.39 | 2.3 |

## A5.5: Histograms of the dependent variables

**Models 11 to 22:**

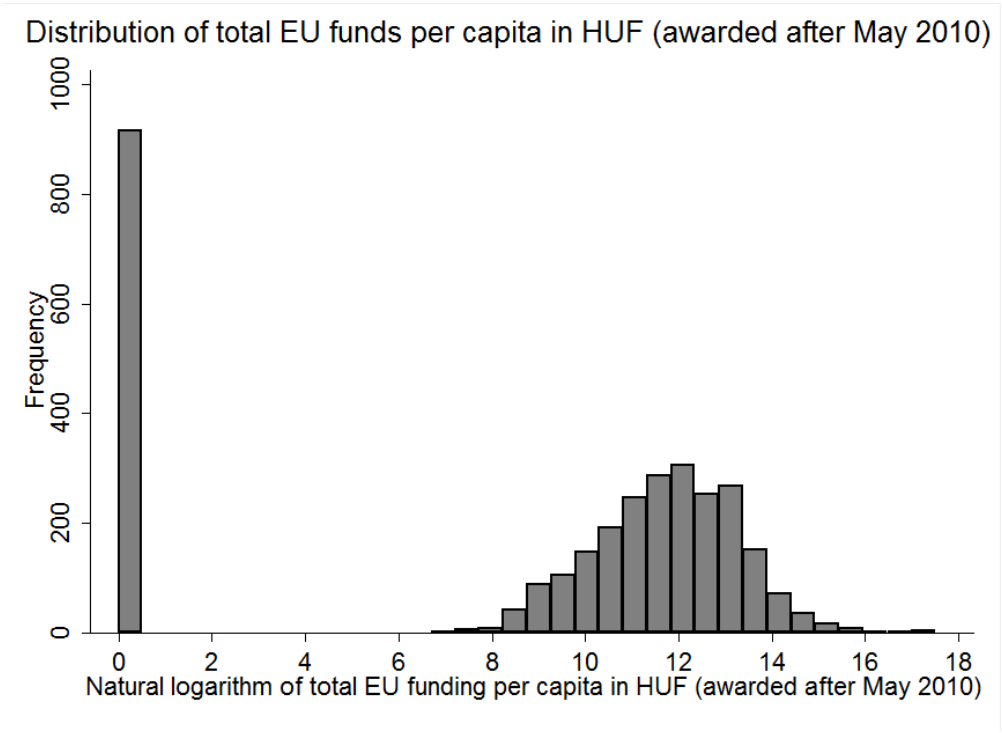



**Models 23 to 29:**



## Appendix 5.5 (cont.): Histograms of the dependent variables

**Models 30 to 36:**



## A5.6: Correlation matrices of the independent variables

**Correlation matrix of the Polish local-level independent variables (N = 2478), Models 11 to 22**

| | Tax revenue (2007) | Own revenue (2007) | Private companies (2007) | Unemployment (2007) | Population (2007) | NGOs (2007) | PO share (2007) | PO share (2011) | PSL share (2007) | PSL share (2011) | PO mayor (2006-2014) | PSL mayor (2006-2014) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tax revenue (2007) | 1 | | | | | | | | | | | |
| Own revenue (2007) | .865** | 1 | | | | | | | | | | |
| Private companies (2007) | .532** | .720** | 1 | | | | | | | | | |
| Unemployment (2007) | -.152** | -.257** | -.232** | 1 | | | | | | | | |
| Population (2007) | .214** | .430** | .512** | -.234** | 1 | | | | | | | |
| NGOs (2007) | .114** | .057** | .055** | -.025 | -.127** | 1 | | | | | | |
| PO share (2007) | .558** | .687** | .694** | -.154** | .476** | -.041* | 1 | | | | | |
| PO share (2011) | .560** | .673** | .681** | -.144** | .424** | -.028 | .941** | 1 | | | | |
| PSL share (2007) | -.333** | -.495** | -.513** | .182** | -.467** | .114** | -.707** | -.633** | 1 | | | |
| PSL share (2011) | -.377** | -.529** | -.543** | .179** | -.465** | .110** | -.697** | -.711** | .820** | 1 | | |
| PO mayor (2006-2014) | .055** | .113** | .132** | -.034 | .142** | .016 | .183** | .178** | -.133** | -.142** | 1 | |
| PSL mayor (2006-2014) | -.111** | -.149** | -.156** | .043* | -.122** | .010 | -.239** | -.229** | .327** | .299** | -.058** | 1 |

* p < .05; ** p < .01

## A5.6 (cont.): Correlation matrices of the independent variables

**Correlation matrix of the Polish regional-level independent variables, Models 11 to 22**

| | GDP per capita (2007) | Regional unemployment (2007) | Quality of government | Eastern voivodship | PO-PSL seat share in the regional council (2006) | PO-PSL seat share in the regional council (2010) |
|---|---|---|---|---|---|---|
| GDP per capita (2007) | 1 | | | | | |
| Regional unemployment (2007) | -.532** | 1 | | | | |
| Quality of government | -.531** | .527** | 1 | | | |
| Eastern voivodship | -.689** | .632** | .389** | 1 | | |
| PO-PSL seat share in the regional council (2006) | .700** | -.219** | -.291** | -.391** | 1 | |
| PO-PSL seat share in the regional council (2010) | .135** | .180** | .297** | -.073** | .464** | 1 |

** $p < .01$

## A5.6 (cont.): Correlation matrices of the independent variables

**Correlation matrix of the Hungarian local-level independent variables (Part I), Models 23 to 29**

| | Tax revenue (2007) | Own revenue (2007) | Private companies (2007) | Unemployment (2007) | Population (2007) | No NGOs (2007) | MSZP-SZDSZ vote share (2006) | Government mayor (2006) | Opposition mayor (2006) | Mayor also government MP (2006) | Mayor also opposition MP (2006) | Government-affiliated mayor and MP (2006) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tax revenue (2007) | 1 | | | | | | | | | | | |
| Own revenue (2007) | .787** N = 3090 | 1 | | | | | | | | | | |
| Private companies (2007) | .496** N = 3084 | .444** N = 3143 | 1 | | | | | | | | | |
| Unemployment (2007) | .182** N = 3083 | .219** N = 3144 | .134** N = 3136 | 1 | | | | | | | | |
| Population (2007) | .408** N = 3090 | .452** N = 3151 | .286** N = 3143 | .534** N = 3144 | 1 | | | | | | | |
| No NGOs (2007) | -.171** N = 3090 | -.235** N = 3151 | -.170** N = 3143 | -.088** N = 3144 | -.388** N = 3151 | 1 | | | | | | |
| MSZP-SZDSZ vote share (2006) | .072** N = 3082 | .093** N = 3143 | -.126** N = 3135 | .133** N = 3136 | .237** N = 3143 | -.062** N = 3143 | 1 | | | | | |
| Government mayor (2006) | .069** N = 3090 | .112** N = 3151 | .024 N = 3143 | .255** N = 3144 | .244** N = 3151 | -.047** N = 3151 | .215** N = 3143 | 1 | | | | |
| Opposition mayor (2006) | .128** N = 3090 | .142** N = 3151 | .139** N = 3143 | .263** N = 3144 | .305** N = 3151 | -.066** N = 3151 | -.052** N = 3143 | -.063** N = 3151 | 1 | | | |
| Mayor also government MP (2006) | .049** N = 3090 | .055** N = 3151 | .013 N = 3143 | .004 N = 3144 | .030 N = 3151 | -.002 N = 3151 | .017 N = 3143 | .060** N = 3151 | -.002 N = 3151 | 1 | | |
| Mayor also opposition MP (2006) | .025 N = 3090 | .021 N = 3151 | .018 N = 3143 | .030 N = 3144 | .028 N = 3151 | .014 N = 3151 | -.030 N = 3143 | .019 N = 3151 | .048** N = 3151 | -.010 N = 3151 | 1 | |
| Government-affiliated mayor and MP (2006) | .088** N = 3090 | .120** N = 3151 | .042* N = 3143 | .281** N = 3144 | .246** N = 3151 | -.039* N = 3151 | .205** N = 3143 | .826** N = 3151 | -.052** N = 3151 | .060** N = 3151 | .031 N = 3151 | 1 |

* p < .05; ** p < .01

## A5.6 (cont.): Correlation matrices of the independent variables

**Correlation matrix of the Hungarian local-level independent variables (Part II), N = 3151, Models 30 to 36**

| | Tax revenue (2010) | Own revenue (2010) | Private companies (2010) | Unemployment (2010) | Population (2010) | No NGOs (2010) | FIDESZ vote share (2010) | Government mayor (2010) | Opposition mayor (2010) | Mayor also government MP (2010) | Government-affiliated mayor and MP (2010) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tax revenue (2010) | 1 | | | | | | | | | | |
| Own revenue (2010) | .624** N = 3150 | 1 | | | | | | | | | |
| Private companies (2010) | .164** N = 3150 | .234** | 1 | | | | | | | | |
| Unemployment (2010) | .154** N = 3150 | .228** | .042* | 1 | | | | | | | |
| Population (2010) | .359** N = 3150 | .468** | .051** | .533** | 1 | | | | | | |
| No NGOs (2010) | -.146** N = 3150 | -.219** | -.098** | -.076** | -.352** | 1 | | | | | |
| FIDESZ vote share (2010) | -.169** N = 3150 | -.233** | .106** | -.167** | -.320** | .113** | 1 | | | | |
| Government mayor (2010) | .097** N = 3150 | .138** | .131** | .253** | .308** | -.071** | .031* | 1 | | | |
| Opposition mayor (2010) | .000 N = 3150 | .049** | -.042* | .098** | .105** | -.013 | -.132** | -.062** | 1 | | |
| Mayor also government MP (2010) | .108** N = 3150 | .154** | .058** | .407** | .299** | -.039* | -.057** | .310** | -.019 | 1 | |
| Government-affiliated mayor and MP (2010) | .090** N = 3150 | .126** | .130** | .164** | .283** | -.073** | .036* | .986** | -.061** | .275** | 1 |

* p < .05; ** p < .01

## A5.6 (cont.): Correlation matrices of the independent variables

**Correlation matrix of the Hungarian regional-level independent variables (Part I), Models 23 to 29**

| | GDP per capita (2007) | Regional unemployment (2007) | Government vote share (2006) | MSZP-SZDSZ MP (2006) |
|---|---|---|---|---|
| GDP per capita (2007) | 1 | | | |
| Regional unemployment (2007) | -.873** | 1 | | |
| Government vote share (2006) | -.294** | .434** | 1 | |
| MSZP-SZDSZ MP (2006) | -.176** | .216** | .503** | 1 |

** p < .01

**Correlation matrix of the Hungarian regional-level independent variables (Part II), Models 30 to 36**

| | GDP per capita (2010) | Regional unemployment (2010) | Government vote share (2010) |
|---|---|---|---|
| GDP per capita (2010) | 1 | | |
| Regional unemployment (2010) | -.875** | 1 | |
| Government vote share (2010) | -.408** | -.489** | 1 |

** p < .01

## A5.7: Methodological notes to the analysis of the Hungarian Structural Funds data

### Justification for the application of multi-level Tobit models

There are three main conditions that the multi-level Tobit models satisfy and which are highly relevant in the case of the Hungarian data on EU funds:

(1) First, the Tobit regression makes a strong assumption that the same probability mechanism generates both the zeros and the positive values. To put it differently, the process that determines the localities that receive funds and those that do not is not different from the process that defines the amount of funds spent in a locality: a combination of the same factors are responsible for both outcomes. In other words, the same conditions influence that a settlement fails to secure any EU support which are also responsible for determining the amount of funds spent in a specific locality.

But what are those conditions? It is a reasonable assumption that demand for EU support exists in every locality but it is not realized in actual funds until the first successful project application. Thus the latent variable in the Tobit model can be considered as the general demand for grants. The chance of success (i.e. funds flowing to the locality) and the total amount of the awarded funds, however, depends on a range of observed and unobservable factors. The beneficiaries are usually NGOs, public authorities, and small- and medium-sized businesses that are eligible for submitting project proposals. Securing grants for a locality depends, among other things, on the number and the quality of the proposals (which is also related to the applicants' know-how), the applicants' own resources, the degree of competition for funds, the local relevance of the content of the operational programmes, and political lobbying. The independent variables in the models presented in the chapter cover several of these aspects. In any case, neither theory nor empirical evidence suggests that some of these factors would first determine whether funds would be spent in a locality at all and then, separately, would define the amount of those funds. In short, the assumption of the Tobit model that the same mechanism is responsible for producing the zeros and the positive values in the dependent variable is well-founded in the case of EU spending within local governments.

(2) Second, the regression models for the Hungarian data need to address the problem of corner solutions and data censoring. Because of the concentration of observations at zero, the assumptions of ordinary least-squares (OLS) regression models are not satisfied. In addition, the local governments with nonzero values are not randomly selected from the population or to put it differently, the sample of localities that received funds is not independent from the sample of those that did not. Applying OLS in this situation will lead to inconsistent parameter estimates. However, Tobit models can deal both with the censored and uncensored observations simultaneously, which makes this statistical technique appropriate in the case of the Hungarian data.

(3) Third, the data has a hierarchical structure in that the dependent variable varies not only across local governments but across regions as well. This poses an additional problem for the analysis because the hierarchical data involves that the error structure is also likely to be correlated within regions and to vary across regions. This violates the assumption of uncorrelated errors, which leads to the underestimation of the standard errors of the parameters. However, multilevel models can account both for heterogeneity in coefficients across regions and for the fact that the errors are also correlated among the higher-level units (the regions). This is the reason why a multi-level Tobit model is expected to offer the best fit to the data.

The decomposition of the standard deviation of the dependent variable into within- and between-region components confirms that there is indeed significant variation across the regions (the NUTS 3 level counties). The two tables below provide the decomposed figures for both periods considered in the chapter. The overall and within values are calculated over the 3151 localities whereas the between values are calculated over the 19 regions. The within number refers to the deviation from each region's average, while the between value stands for the deviation across the regional averages. The T-bar shows the average number of local governments in the regions.

| Natural log of EU funds per capita in HUF (awarded during the MSZP-SZDSZ government) | Mean | SD | Min. | Max. |
|---|---|---|---|---|
| overall | 6.27 | 5.65 | 0 | 16.52 |
| between regions | | 2.04 | 3.46 | 9.45 |
| within regions | | 5.27 | -3.18 | 18.50 |
| Number of localities | 3151 | | | |
| Number of counties | 19 | | | |
| T-bar | 165.84 | | | |

During the term of the socialist-liberal government, logarithmic EU fund per capita across the local governments varied between 0 and 16.52. At the same time, average logarithmic EU fund per capita across regions varied between 3.46 and 9.45 (the smallest regional average was 3.46 and the highest was 9.45). The variation within the regions was between -3.18 and 18.5.[156] Because the within number refers to the deviation of the values from each region's average, some of those deviations must be negative. Although there is less variation across the regions than within them, the cross-regional variation is still high enough to require modeling.

| Natural log of EU fund per capita in HUF (awarded during the Fidesz government) | Mean | SD | Min. | Max. |
|---|---|---|---|---|
| overall | 8.33 | 5.49 | 0 | 17.51 |
| between counties | | 2.02 | 5.00 | 11.33 |
| within counties | | 5.06 | -2.99 | 18.72 |
| Number of localities | 3151 | | | |
| Number of counties | 19 | | | |
| T-bar | 165.84 | | | |

During the term of the conservative government, the logarithmic value of EU funds per capita varied between 0 and 17.51 across localities. The cross-regional average varied between 5 and 11.33, while the observations varied within the regional means between -2.99 and 18.72. In both periods the magnitude of the cross-regional variation is comparable to the within-region variation thus the estimation technique has to account for cross-regional variance. In short, the application of a multi-level Tobit model is justified.

[156] The global average is added to the within values thus the maximum value means that the variation within one region was 18.5 - 6.27 = 12.23

**Alternative estimation techniques**

The problem with Tobit estimators is that they may be inconsistent if the errors are not normally distributed or if they are heteroskedastic (see Chapter 16 in Cameron and Trivedi 2009). Alternative estimation techniques such as two-part models or selection models offer more robust estimates because neither the condition of homoskedasticity nor normality is necessary for the consistency of their estimators. Although using one of these methods may resolve the issue of consistency, the problem is that none of them fulfill all the three key conditions that multi-level Tobit models do.

One of the possible alternatives is the two-part model, which in this case would first estimate the probability of a locality receiving funds and then, separately, in the second stage would calculate OLS parameter estimates for the observed positive values. This model assumes that the two parts (who gets and who doesn't get funds and the amount of funds spent in a locality) are independent from each other. As it has been demonstrated above, it is not a plausible assumption because the local governments with funding are not randomly selected from the population. The other alternative is the so-called selection model, which is a similar approach comprising of a selection equation and an outcome equation but it is more flexible because it allows for possible dependence in the two parts of the model. The selection model (Heckman 1979) specifies a joint distribution for the censoring mechanism and the outcome, and then finds the implied distribution conditional on the outcome observed (Cameron and Trivedi 2009 p. 538). In the present case, the selection model calculates a latent variable $y_1^*$ that determines whether a local government has any EU funding, while $y_2^*$ determines the actual level of funding. It is important to note that $y_1^* \neq y_2^*$, whereas the Tobit model is a special case where $y_1^* = y_2^*$ (Cameron and Trivedi 2009 p. 542).

The selection (or Heckit) model thus first determines the probability of whether a locality receives funds or not and then provides estimates for the size of funds based on the joint distribution. This approach also has drawbacks because the results are sensitive to the set of variables used for the estimation of the selection equation (Bodenstein and Kemmerling 2011). Because of the lack of theory on the determinants of the selection process of local governments, the choice of the variables is arbitrary, which is anything but ideal. Nevertheless, a more robust variant of the selection models is the two-step Heckit, which relies solely on univariate normality of the marginal distribution, thus it is considered to be more robust than the simple selection model and the Tobit model. However, the two-step selection model does not allow for incorporating the hierarchical data structure into the estimates thus the potential cross-regional variation in the errors remains unaddressed. Another caveat is that while Tobit models treat the zeros as real zeros, the selection models consider them as unobserved values. In spite of these concerns and caveats, the two-step selection model may be appropriate for testing the consistency of the multi-level Tobit models.

To perform this test, in the first stage simple Tobit models with clustered standard errors (clustering on the regions) were estimated based on Model 28,29, 35 and 36, which are the full final multi-level Tobit models. The main difference between simple and multi-level Tobit models is that the former do not provide estimates for the random effects whereas multi-level Tobits calculate random intercepts based on the grouping variable. Next, these models were estimated using Heckit (two-step selection) models in which the same variables were included in the outcome equations as in the Tobit models, while the following indicators were chosen for the selection equations: population size, the local government's total own budget revenue per capita, density of private companies, regional GDP per capita, regional unemployment and regional vote share of the governing parties. The table below summarizes the results.

| | Simple Tobit with clustered SE | | | | Two-step selection model | | | | Simple Tobit with clustered SE | | | | Two-step selection model | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Model 28 | | Model 29 | | Model 28 | | Model 29 | | Model 35 | | Model 36 | | Model 35 | | Model 36 | |
| | | | | | *Second stage: amount of EU funds* | | | | | | | | *Second stage: amount of EU funds* | | | |
| | B | SE | B | SE | B | SE | B | SE | B | SE | B | SE | B | SE | B | SE |
| Constant | 4.19*** | .65 | 4.16*** | .62 | 9.61*** | .23 | 9.59*** | .23 | 7.53*** | .26 | 7.53*** | .23 | 10.68*** | .13 | 10.64*** | .13 |
| *Local-level effects* | | | | | | | | | | | | | | | | |
| Population | 4.14*** | .37 | 4.17*** | .34 | .61*** | .13 | .62*** | .13 | 2.75*** | .28 | 2.78*** | .26 | .48*** | .09 | .52*** | .09 |
| Own revenue | 1.26*** | .38 | 1.25*** | .38 | .50*** | .07 | .50*** | .07 | 1.46*** | .26 | 1.47*** | .25 | .59*** | .06 | .62*** | .07 |
| Private companies | 1.28*** | .35 | 1.34*** | .33 | .54*** | .11 | .57*** | .12 | .58** | .29 | .46* | .25 | .27*** | .09 | .24** | .10 |
| Unemployment | .06 | .05 | .03 | .04 | .04*** | .01 | .03*** | .01 | .01 | .03 | -.03 | .03 | .02*** | .01 | .01 | .01 |
| No NGOs | -3.89** | 1.86 | -3.70** | 1.82 | -.33 | .22 | -.35 | .22 | -2.12*** | .67 | -1.98*** | .63 | .34* | .18 | .33* | .19 |
| Government vote share | -.02 | .01 | -.02 | .01 | .01* | .00 | .01* | .00 | -.01 | .02 | .00 | .02 | .00 | .00 | .00 | .00 |
| Government mayor | 1.70* | .94 | 1.73* | .93 | .81*** | .26 | .82*** | .26 | .57 | .40 | .45 | .40 | .20* | .11 | .20* | .11 |
| Opposition mayor | .83 | .88 | .84 | .87 | .48** | .20 | .49** | .20 | .83 | .84 | .88 | .82 | .15 | .31 | .13 | .33 |
| Mayor also government MP | -1.38 | 1.06 | -1.34 | 1.06 | -.58 | .44 | -.56 | .44 | 3.12*** | 1.20 | 3.25*** | 1.18 | 1.24*** | .45 | 1.26*** | .47 |
| Mayor also opposition MP | -1.47 | 1.53 | -1.43 | 1.51 | .31 | .56 | .30 | .57 | | | | | | | | |
| *Regional-level effects* | | | | | | | | | | | | | | | | |
| GDP per capita | -2.83* | 1.72 | | | -.46* | .26 | | | -3.20*** | 1.08 | | | -1.04*** | .24 | | |
| Regional unemployment | | | .26** | .11 | | | .04** | .02 | | | .32*** | .05 | | | .10*** | .02 |
| Government vote share | .26** | .10 | .23** | .09 | .05*** | .01 | .05*** | .01 | -.19*** | .05 | -.16*** | .03 | -.05*** | .01 | -.04*** | .01 |
| MSZP-SZDSZ MP | -.37 | .44 | -.34 | .41 | -.15 | .09 | -.15 | .10 | | | | | | | | |
| *Interaction effects* | | | | | | | | | | | | | | | | |
| Population * gvt. mayor | -2.31*** | .54 | -2.35*** | .51 | -.32** | .16 | -.34** | .16 | -1.01*** | .27 | -.97*** | .27 | -.03 | .09 | -.04 | .09 |
| Population * opp. mayor | -2.06*** | .48 | -2.09*** | .46 | -.18 | .13 | -.19 | .13 | -1.51*** | .46 | -1.63*** | .44 | -.12 | .18 | -.15 | .19 |
| Population * mayor gvt. MP | | | | | | | | | -1.78*** | .45 | -1.86*** | .44 | -.40** | .17 | -.42** | .18 |
| Population * gvt. vote share | -.09** | .04 | -.09** | .04 | -.02* | .01 | -.02* | .01 | .16*** | .02 | .14*** | .02 | .03*** | .01 | .02*** | .01 |
| | | | | | *First stage: selection of localities* | | | | | | | | *First stage: selection of localities* | | | |
| Constant | | | | | .29*** | .03 | .29*** | .03 | | | | | .90*** | .03 | .91*** | .03 |
| Population | | | | | .80*** | .03 | .81*** | .03 | | | | | .76*** | .03 | .77*** | .03 |
| Own revenue | | | | | .18*** | .04 | .19*** | .04 | | | | | .31*** | .04 | .33*** | .04 |
| Private companies | | | | | .24*** | .06 | .28*** | .06 | | | | | .18*** | .06 | .17*** | .06 |
| GDP per capita | | | | | -.58*** | .13 | | | | | | | -.76*** | .16 | | |
| Regional unemployment | | | | | | | .05*** | .01 | | | | | | | .07*** | .01 |
| Gvt. vote share (regional) | | | | | .04*** | .01 | .03*** | .01 | | | | | -.05*** | .01 | -.03*** | .01 |
| Mills lambda | | | | | 2.12*** | .31 | 2.14*** | .31 | | | | | 2.04*** | .27 | 2.13*** | .28 |
| rho | | | | | >1 | | >1 | | | | | | >1 | | >1 | |
| sigma | 7.13 | .50 | 7.12 | .50 | 2.12 | | 2.14 | | 5.84 | .51 | 5.81 | .51 | 2.04 | | 2.13 | |
| N (uncensored) | 3135 (1767) | | 3135 (1767) | | 3135 (1767) | | 3135 (1767) | | 3151 (2234) | | 3151 (2234) | | 3151 (2234) | | 3151 (2234) | |
| -2Log-likelihood | -13766 | | -13759 | | | | | | -15832 | | -15807 | | | | | |
| Wald Chi-square | | | | | 168.6*** | | 165.3*** | | | | | | 200.4*** | | 192.0*** | |
| F-value | 108.5*** | | 190.7*** | | | | | | 153.2*** | | 140.1*** | | | | | |

Unstandardized coefficients. * p < .1 ** p < .05 *** p < .01

The simple Tobit models with clustered standard errors provide very similar coefficients and significance levels to the multilevel Tobit estimates, which are reported in Table 5.2. In fact, both estimation methods generate virtually identical results for Model 35 and 36. The only differences appear in the case of Model 28 and 29: in the clustered Tobit models the local level of unemployment keeps its positive sign but is not significant while the main positive effect of government-affiliated mayors becomes significant compared to the not significant coefficient in the multilevel models. In spite of the similarities of the parameter estimates, the lower -2Log-likelihood values of the multilevel models reveal that they offer a better fit to the data than the clustered Tobit models.

To a great extent, the results of the two-step selection models confirm the findings of the previous estimations. All the variables that entered both the first and the second stage show a significant relationship with the outcome. Moreover, the sign of these effects are the same in both equations, which suggests that there is indeed dependence between the two stages: the mechanism that determines the amount of EU funds spent in a local government is not independent from the selection of the localities. In fact, the same factors seem to play a role in both processes, thus one of the key assumptions of the Tobit models have been verified.

Furthermore, the ancillary parameter rho, which is the correlation of the residuals in the two equations, converged to a value that is greater than one although correlation coefficients should fall between minus and plus one. On the one hand, the large rho is a further evidence for the dependence between the two stages. On the other hand, the out-of-bound value is problematic in that it warrants problems with the estimates. Selection models work well if an exclusion restriction is specified, which requires that the selection equation have an exogenous variable that is excluded from the outcome equation (Cameron and Trivedi 2009 p. 546; Wooldridge 2012). Because of the lack of a theory on the process of selecting the localities where EU funds are spent, it is not possible to choose such an exogenous variable.

In spite of the above concerns, the sign and significance of most of the main and the interaction effects estimated in the selection models correspond to the results of the multi-level Tobits, which raises confidence in the consistency of those parameters. There is only a single variable where the two estimation techniques report differences in both the sign and the significance level. According to the Heckit models, in Model 35 and 36 the dummy indicating the presence of NGOs in a locality has a significant positive effect on the dependent variable, whereas the Tobit models show a significant negative relationship. Apart from this case, the sign of all the other parameter estimates match those calculated by the multi-level Tobits and most of them also show a similar level of significance. This exercise has thus brought sufficient evidence for the justification of the use of multi-level Tobit models for the analysis of the Hungarian EU funds data. Moreover, the results of the alternative, presumably more robust estimation techniques have reinforced the previous findings. All things considered, the multi-level Tobit seems to be the correct model to apply to the data.