Cohesion and Growth in the EU: Is there a conflict between national and regional convergence?

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Abstract

The analysis of economic disparities within the European Union strongly depends on the regional level concerned. Whereas the economic gap between the member states of the EU15 has decreased over the last decades, regional disparities on the NUTS2-level have rather deepened. The reason for these contradictory findings can be found in the increasing disparities within many of the member states: Especially in growing economies the gap between the urban centres and the rural periphery tends to widen. The strong concentration of research and development, high skilled labour, infrastructure and foreign investment in the capitals will therefore supposably become a big challenge for the accession countries, which will have to face enhanced international competition. EU-policies act in the dichotomy between the conflicting goals of economic growth and cohesion. Since all of them have regional impacts by changing economic conditions for production it is of great political interest whether a certain measure fosters economic efficiency by favouring the highly developed centres or rather enhances convergence by promoting lagging regions. The answer is, however, not always trivial and needs closer examination: Measures encouraging regional cohesion on the European level can also increase disparities within a state or a region at the same time. This is the reason why the regional effects of EU-policies have to be analysed on different spatial levels.

Dealing with the spatial impacts of different European Policies (Regional Policy, Trans-European Networks, Common Agricultural Policy, Research and Technological Development Policy) there is some evidence that these policies try to compensate the effects of enhanced competition in the common market by concentrating their efforts on urban growth poles within the underdeveloped countries. Doing that, the European Union comes up to the two conflicting goals of growth and cohesion by promoting efficient economic development in the member states on the one hand and regional convergence on the European level on the other. This approach is of course mainly directed at European objectives and brings about new problems for the member states: Referring to the principle of subsidiarity the growing divergence within the member states is, however, not a duty of the European Union but of the member staates themselves: Therefore national politics are still required to take on responsibility for these intranational problems by adopting their transport, regional and economic policies to the new challenge.

Cohesion and growth as main goals of the European Union

The European Union strives for the goal of cohesion and convergence as well as for economic competitiveness and growth. According to Article 2 of the Treaty establishing the European Community the Community aims at promoting “a high degree of competitiveness and convergence of economic performance”. Article 3 says that the activities of the Community shall include “the strengthening of economic and social cohesion” as well as “the strengthening of the competitiveness of Community industry” (European Communities 2002). Although these two goals are of equal importance, it is not easy to meet the requirements of both at the same time. Cohesion and growth might be conflicting and sometimes even contradictory goals, since measures in the economically lagging regions are normally less efficient than in highly developed areas. Assuming that productivity of public investment depends on qualification of labour, infrastructure supply and economic structures economic growth

can more easily be achieved by promoting projects in the urban agglomerations than by supporting measures in the lagging areas.

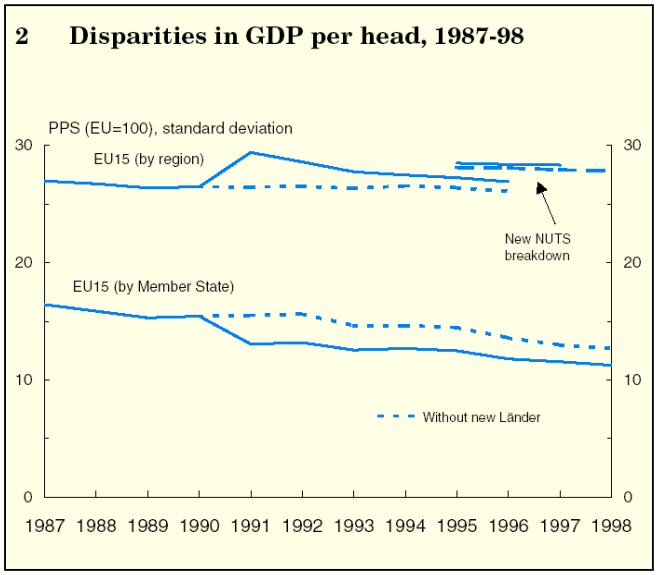
This conflict of policy goals leads to the question whether the European funds should rather be used for fostering total economic growth or for the reduction of regional disparities. In this context this paper deals with the question, whether disparities have decreased over the last decades and in which way European policies could contribute to the goal of cohesion. The different changes of disparities between and within the member states are therefore examined both on a national and on a regional scale. The main findings are contrasted with the actual measures of the European Union in the fields of Regional Policy, Common Agricultural Policy, Research and Development and Transeuropean Networks, in order to find out to what extent they can be explained by European policies.

Regional and national disparities in the European Union

The analysis of economic disparities within the European Union strongly depends on the regional level concerned. Regarding the national differences in GDP per capita the gap between the rich and the poor member states of the EU15 has clearly decreased over the last decades. Between 1988 and 2001 the cohesion countries have significantly converged to the European average (see European Communities 2004): The GDP per capita in Portugal has increased from 58,9% to 70,7% of the EU15 average, Greece from 58,1% to 67,1%, Spain from 74,0% to 84,2% and Ireland has even become one of the richest countries almost doubling its economic performance in comparison to the EU15 from 65,9% to 117,6%. On the other hand the wealthier countries could maintain their competitive edge to a large extent without improving their privileged position. These different developments induce a reduction of national disparities, which is expressed by the reduction of standard deviation of national GDP per capita in PPS (see fig. 1).

Whereas the economic gap between the member states of the EU15 has decreased over the last decades, regional disparities on the NUTS2-level have not significantly changed. The ratio between the richest and the poorest regions each accounting for 10% of the total population has slightly decreased from to 2.8 to 2.6 from 1988 to 1998, and has remained unchanged at 2.0 when covering 25% of the total population (see European Communities 2001). These findings are confirmed by the almost constant standard deviation of regional GDP per capita in PPS, even when eliminating the statistical effect resulting from the German Unification (see fig.1).

Fig. 1: Change of disparities on regional and national level



Source: European Communities (2001)

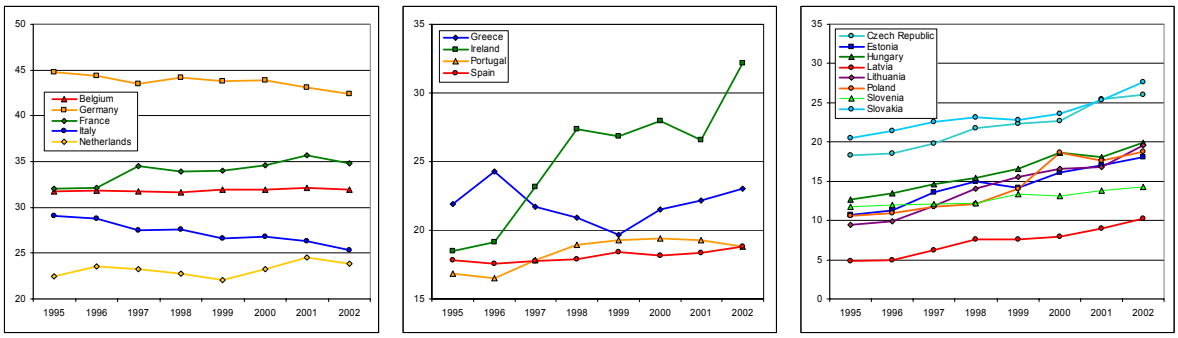
The reason for these contradictory findings on different spatial levels can be found in the increasing disparities within several member states: Due to the strong concentration of research and development, high skilled labour, infrastructure and foreign investment the gap between urban centers and rural periphery tends to widen especially in growing economies. The high growth rates of Spain (3,7%) and Portugal (3,5%), which reduced the gap from the European average, were mainly caused by the capital regions of Madrid (4,2%) and Lissabon (4,1%)[1], which developed more dynamically than most parts of the country (see European Communities 2004). The spatial concentration of economic development in a few national centres, however, is a dangerous threat for cohesion within economically lagging countries in their catching-up process: While regional disparities within most of the highly developed Central European countries have not significantly changed or have even declined over the last years (especially in Germany and Italy the gap could be reduced), the cohesion countries are confronted with growing inequalities: Figure 2 shows that contrary to most Central European countries, the standard deviation of GDP per capita of the NUTS3-regions has increased between 1995 and 2001 within each of the cohesion countries.

[1] Average annual growth of GDP on the NUTS2-level 1995-2001

Growing disparities are even more pronounced in the Middle and Eastern European accession countries that have joined the EU in 2004. As shown in the third diagram of figure 2 the standard deviation of GDP per capita has increased in all former socialist accession countries over the last years. With the exception of Poland, which is characterized by a rather polycentric settlement structure, these countries are economically dominated by their capital cities, which profit from their relative advantages of location to an increasing degree. Therefore economic growth in the capital regions distinctly exceeds the national average in most the lagging countries: Prague, for example, had an average growth rate of 4,4% between 1995 and 2001, while the economic output of the Czech Republic only increased 1,5% per year. The same is true for Hungary, where economic growth of 4% was largely determined by the development of the region Közép-Magyarország (+5,2%) and Slovakia, where GDP grew much faster in the capital region of Bratislavský (+5,7%) than in the whole country (+3,9%) (see European Communities 2004).

The reason for increasing disparities within these growing economies are to be found in different production conditions between urban centers and rural periphery. In these countries only a few locations are able to cope with the new challenges of a European or even global competition of regions. Therefore research and development activities, education programs and infrastructure investments are increasingly concentrated in a few urban agglomerations, while large parts of the countries are largely neglected. This development improves the position of a small number of urban agglomerations characterized by skilled labour force, high quality of physical and social infrastructure (especially with regard to transport and communication networks) and innovative power.

Fig. 2: Change of disparities within selected developed, cohesion and accession countries



Standard deviations of standardized regional GDP (on NUTS3-level) by capita (PPS) 1995-2002
Datasource: Eurostat (2005)

All these conditions are a crucial benefit for the firms located in the urban centres and make them more attractive for foreign investors. As shown in Table I spatial concentration of foreign direct investment (FDI) predominantly appears in the economically lagging countries. Although in Germany and Italy FDI significantly concentrates on the higher developed (Western respectively Northern) parts of the country, a reasonable part of the provinces profit from foreign investment, whereas in Spain more than 80% of all FDI concentrate on the two dominating cities of Madrid and Barcelona.

Tab. I: Concentration of Foreign direct investment in selected EU15 and accession countries

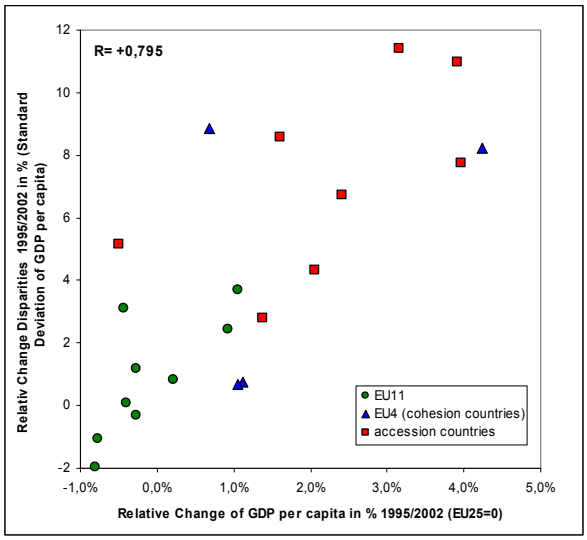
Germany	1998-2000	Spain	1999-2001	Italy	2000
Nordrhein-Westfalen	37,5	Madrid	69,5	Lombardia	43,5
Hessen	21,6	Cataluña	13,5	Piemonte	14,9
Baden-Württemberg	11,7	País Vasco	5,5	Lazio	8,4
Bayern	9,0	Com. Valenciana	2,7	Emilia-Romagna	7,8

Czech Republic	2001	Hungary	2001	Slovakia	2001
Praha	49,3	Közép-Magyarország	67,7	Bratislavský	63,2
Stoední Cechy	10,7	Közép-Dunántúl	9,4	Východné Slovensko	18,8
Jihozápad	7,6	Nyugat-Dunántúl	7,5	Západné Slovensko	10,3
Severozápad	8,2	Észak-Magyarország	6,2	Stredné Slovensko	7,7

Source: European Commission (2004)

As expected the concentration of foreign investment is much more pronounced in the accession countries where it has become a serious problem for a balanced economic development. As shown in the bottom of table 1 the position of the national capitals in the Czech Republic, Hungary and Slovakia is so dominant, that they attract half or even two thirds of all FDI, which goes far beyond their population share.

Fig. 3: Correlation between economic growth and disparities within the member states



Datasource: Eurostat (2005)

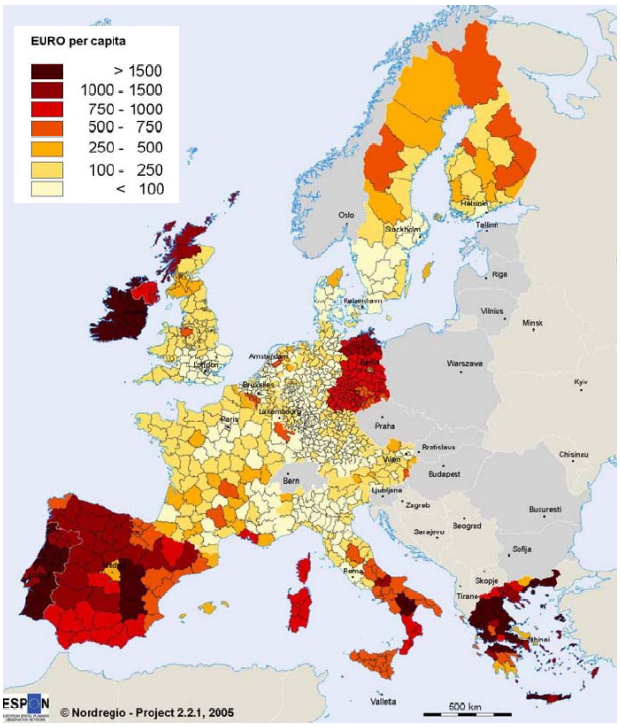
These findings give rise to the assumption that there is a causal interrelation between total economic growth and the change of intranational disparities in the EU25: While the higher developed states in Central Europe show modest but constant growth rates (on a high level) in most regions, the dynamic economic development of the lagging states in the European periphery and in Middle and Eastern Europe largely concentrates on only a few locations. Due to the increasing international competition of regions it seems that only the big urban agglomerations (in many cases only the capitals) are able to compete with highly developed regions in Central and Western Europe, while smaller regional and local centres and especially rural areas constantly lose economic attraction and productivity. Therefore the catching-up process of the lagging countries seems to be intrinsically tied to growing disparities on a national scale. Figure 3 reveals the positive correlation (R=0,795) between economic growth and the change of intranational disparities in a highly impressive way.

Cohesion effects of European Policies

Regional Policy

These empirical results indicate that the dynamic development in the lagging countries has caused a reduction of economic disparities between the member states and has therefore fostered cohesion on a national scale. At the same time growing regional inequalities within many of the member states have superposed this development and therefore constrained European cohesion on a regional level. In this context it is of great interest whether European policies can be called to account for these findings or whether they work in the opposite direction.

Fig. 4: Spatial distribution of Structural Fund spending



Source: ESPON (2004c)

Regional Policy, which explicitly aims at "reducing disparities between the levels of development of the various regions" (European Communities 2002), spends more than 30 Billion € a year on economic and social cohesion. Although there is no clear statement about the spatial level on which this should happen, it can be assumed that "regional" refers to NUTS2 or NUTS3-regions. Looking at the spatial distribution of Structural Fund spending during the last financing period it becomes evident that according to the definition of Cohesion Policy goals the major part of the money goes to the lagging regions at the European periphery (see figure 4). This way of distributing Structural funds is definitely suitable for reducing regional and national disparities on a European scale, but it hardly considers intranational and intraregional inequalities. With the exception of Italy and Germany, where the less developed parts are clearly privileged in comparison to the rest of the country, the differentiation within the member states is not very distinct: Even the richer parts of the cohesion countries get higher funding than most of the less favored regions in the highly developed countries in Central Europe.

A more accurate insight into the redistributive effects of structural subsidies can be obtained by considering the distribution of funds on different types of settlements. Surprisingly, there are only little differences when comparing the average funding according to the position in the European hierarchy of locations (see ESPON 2004c). As shown in Table II the international and national "Functional Urban Areas (FUA)", which include the big urban centres, do not get significantly less financial help from the Structural Funds than the rural regions outside the FUA defined. The fact that regional and local FUA, which cover middle sized cities (most of them with a population of 50.000 to 100.000) receive the highest donations per capita indicates that regional policy aims at reducing regional disparities on a European scale by supporting selected regional centres.

Table II: Structural Funds assistance for different types of functional urban areas in EU15

	International FUA	National FUA	Regional / Local FUA	Non FUA
Structural Fund spending p. capita in €	212	220	321	255

Source: ESPON 2004c

Common Agricultural Policy

The biggest part of the EU-budget, however, is still dedicated to Common Agricultural Policy (CAD). Almost 50 billion € are spent on market price support for agricultural products, direct income payments to farmers and rural development, which amounts to almost 45% of the total budget. Although these measures are not explicitly targeted on favouring the lagging reasons, it is widely assumed that they predominantly affect the less productive rural areas. The spatial distribution of financial resources spent by CAP, however, does not indicate any preference of the less developed regions (see ESPON 2004b). As shown in Table III the payments for market price support and rural development in the NUTS3-regions are even positively correlated with regional GDP per capita, only direct income payments are slightly higher in poorer regions. These findings point out that Common Agricultural Policy does not contribute to the reduction of regional disparities at all, neither on a European level nor within the member states. Thus, it does not support the goals of social and economic cohesion.

Table III: Correlation between CAD-payments and GDP per capita in NUTS3-regions (EU15)

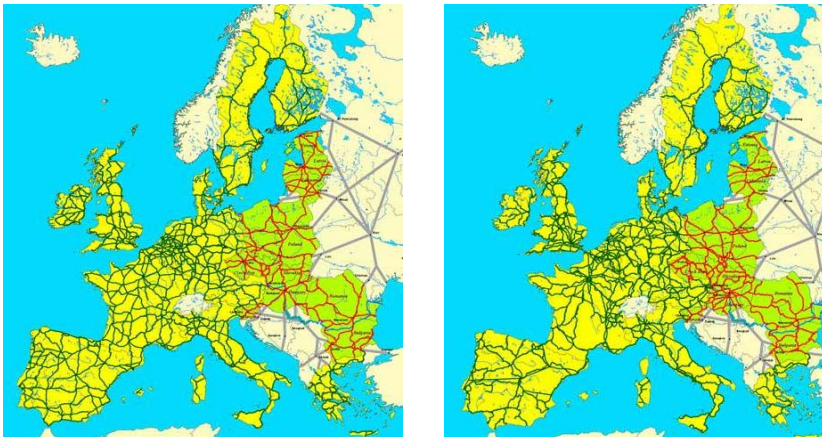
Support per Utilisable Agricultural Area (UUA)	GDP per Capita
Market Price Support (Pillar 1)	+ 0.113 (**)
Direct Income Payments (Pillar 1)	- 0.156 (**)
Rural Development (Pillar 2)	+ 0.143 (**)

Source: ESPON (2004b)

Trans-European Networks

According to the Treaty establishing the European Community the "development of trans-European networks in the areas of transport, telecommunications and energy infrastructures" (European Communities 2002) is not only directed at facilitating the free movement of goods, persons, services and capital, but also at supporting social and economic cohesion. Although financial funding of transport infrastructure projects is rather modest (with some exceptions only a maximum of 10% of the investment can be financed by the EU), the strategic road and rail networks express political intentions. Since the Trans-European Transport Networks (TETN) have been put up as an ambitious plan for the future shape of high-ranking transport corridors their spatial effects are definitely worth being examined. Figure 5 shows that both road and rail connections make up dense networks which cover the whole area of the EU25 and make the majority of NUTS2-regions well accessible.

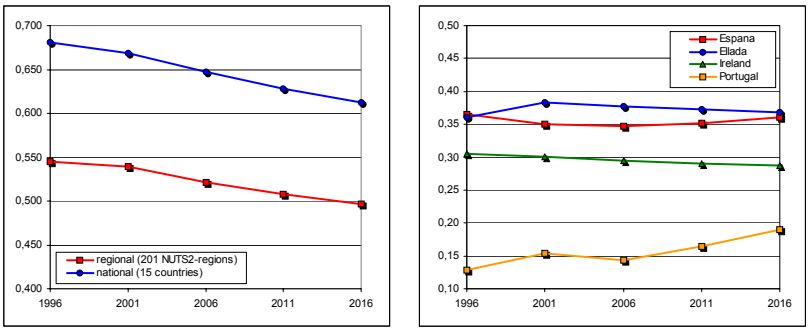
Fig. 5: TEN: Strategic road and rail networks



Source: TINA Secretariat (1999)

Consequently the Trans-European Transport Networks foster regional convergence from a European perspective by making the Central European markets better accessible from the periphery of the Union. Figure 6 indicates that the realization of all missing links of these strategic networks until the year 2016 would cause a significant decrease of disparities in market accessibility in the EU 15 both on a national and on a regional level[2].

Fig. 6: TETN-effects on disparities in market accessibility on a national and regional level and within the cohesion countries



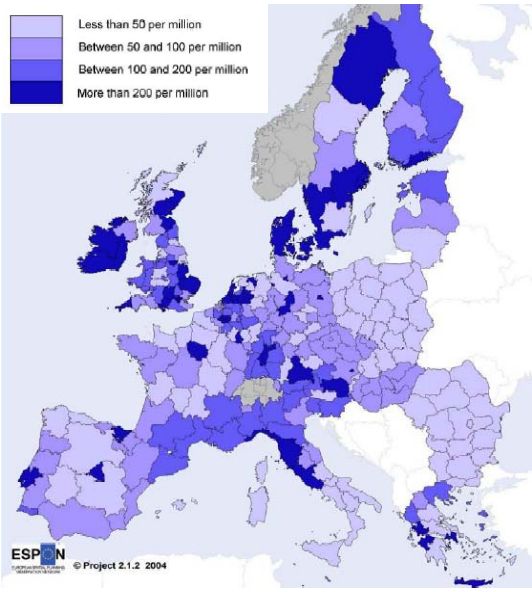
Data Source: SASI modelling results

A closer look to the networks, however, reveals that only the bigger regional and national centers are connected, whereas many rural and densely populated areas are largely ignored. Therefore the TETN do not support convergence within the less developed member states: Spatial inequalities in market accessibility on the NUTS2-level would not be reduced in three of the cohesion countries and would even increase in Portugal. Considering the actual shape of the projected networks, which should mainly facilitate trans-European and not primarily national transport of goods and persons, these findings are not surprising and do match the political intentions of the European Union to a large extent.

Research and Technological Development (RTD)

Finally the promotion of Research and Technological Development (RTD), which is one of the most ambitious policy fields of the European Union (approximately 4,2 billion € within the Framework Programs and other policies per year) is examined with regard to its cohesion effects. Even though RTD-Policy is not explicitly directed at reducing regional disparities, the spatial impacts of financial support for Research and Development should not be ignored.

Fig 7: Participation in the 5th Framework Programme



Source: ESPON (2004a)

Although there is no empirical evidence on the regional distribution of funds, the share of researchers participating in the 5th Framework Programme (see figure 7) clearly demonstrates that RTD policy strongly concentrates on the big urban agglomerations (see ESPON 2004a). This observation especially applies to the less developed countries, where a predominant part of research is done in the capital regions and a few innovative centres. The negative cohesion effect of RTD efforts is underlined by the fact that the average share of participants by population in Objective-1-regions is some 63% of the EU15 average, which is even below their level of GDP (70%). Furthermore the share of firms and organizations based within Objective 1 regions account for only 14% of total participation and for 12% of all project leaders, although these regions cover about 27% of the population. In all likelihood this uneven distribution will not be confined to the EU15, but it will affect the accession countries even to a higher degree. Due to their monocentric economic structure spatial concentration of RTD will probably grow there within the next few years and increasingly become a major threat to balanced economic growth.

[2] Accessibility effects of the TETN have been assessed in the "SASI"-project ("Socio-economic and Spatial Impacts of Transport Infrastructure Investments and Transport System Improvements") that was funded by the 4th framework programme of the EU. In this project regional accessibility was interpreted as the market potential of a region and defined on the base of a gravity- based potential model (see Bökemann & Wegener 1998)

Conclusions with regard to regional policies in the member states

At first sight the four EU-policies considered show different impacts on regional convergence. While Common Agricultural Policy (CAP) and the field of Research and Technological Development (RTD) do not support cohesion goals at all, Regional Policy and Trans-European Networks (TEN) are clearly directed at reducing regional and national disparities on a European scale. The idea behind these strategies, however, is to foster economic development in the lagging areas by focusing on selected locations instead of granting relief all over the country. Assuming that efficiency of public funding rises with the quality of specific location factors economic development can more easily be achieved by concentrating activities on the urban agglomerations. In this way these two policies combine the idea of redistribution with the efficient application of funds and therefore give consideration to total economic growth as well as to regional cohesion from a European perspective. At the same time, however, they abet the problem of intranational and intraregional disparities. Especially the economically lagging countries, which receive the major part of the subsidies, are increasingly confronted with growing inequalities between a few prospering urban regions and a majority of provincial areas.

The fact that Regional Policy and Trans-European Networks contribute to growing disparities on a national scale, however, cannot be considered as a failure of EU cohesion policies. According to the principle of subsidiarity the goal of economic convergence is confined to reducing regional disparities on a European scale. The empirical data, which demonstrate that the lagging countries have been able to reduce their handicaps, prove that the European Union has been successful in that ambition over the last decades. It is highly plausible that these positive results have been promoted by the effective use of subsidies by focusing them on national and regional centres. At the same time this strategy has certainly aggravated the problem of increasing economic disparities within the less developed member states. Since the solution of this problem is definitely not the duty of the European Union, the political bodies in the member states have to face these facts and meet the challenge of enhancing cohesion within their territories.

Consequently national and regional governments cannot be let off the hook regarding their responsibility for intraregional inequalities. In order to make all regions benefit from the economic boom in the centres, they would be well advised to adapt their regional and transport policies to the European measures in that field. On the one hand regional and structural programmes of the member states have to improve the basic local parameters in the rural and underdeveloped regions making use of the available endogenous potentials. On the other hand national transport planning departments have to provide an adequate secondary road and rail infrastructure supplementing the high-ranking Trans-European Networks, so that the growth effects induced in the regional centres can spread to the surrounding areas (see Kramar 2002). Considering the fact that growing international competition has accelerated the spatial concentration of investment and economic growth, especially the accession countries will have to meet this challenge in order to guarantee a balanced development and to prevent further decay of the underdeveloped regions.

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