Conditions for a contribution by the Structural Funds to real convergence of the Recently Acceded Member States

Michael H. Stierle[1]

Introduction

The recent EU enlargement poses immense challenges for EU regional policy. This is not only due to the significantly increased disparities within the enlarged EU and the by far lower per capita income in the Recently Acceded Member States, but also because these economies are far from being homogenous. However, the characteristics of these countries will not be the focus of this paper, but rather the question will be discussed, whether – or more precisely under which conditions – EU structural funds can be effective in making a significant contribution to real convergence in Europe. Based on theoretical insights and experiences in the incumbent Member States, conclusions will be drawn (though not exclusively) for the new member states.

In view of the very limited budgetary means of EU cohesion policy, representing less than 0.5 per cent of the EU-15 GDP, the following conditions will be identified as being important for maximising the impact: First, sound and supportive national policies, including macroeconomic policies, national regional policies and good governance, are an essential precondition for the achievement of a real impact. Second, the scarce financial means must be concentrated spatially, i.e. on the poorest Member States and regions and particularly in these countries they must be focused on national growth and growth poles rather than on equalising living conditions across the country and more dispersion of economic activity. Third, the strategic design of Structural Funds programmes must allow for a concentration on those types of expenditures most likely to lead to growth and employment. Fourth, ways have to be found to achieve the most effective use of EU Structural Funds. Before these conditions for maximising the impact of Structural Funds are described, empirical evidence and methods for assessing their contribution to real convergence in Europe will be discussed.

1 Evidence of structural funds impact

Can European Regional Policy contribute to real convergence? Some authors raise strong doubts by criticising Structural Funds as having only a marginal, if any, impact on real convergence in

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Europe.[2] However, in contrast to the impression one could get from the frequently cited studies, with few exceptions[3] most regressions tend to find a significant positive effect of cohesion support on national growth and convergence.[4] At the regional level, across the EU and in some case within countries, most studies also identify a positive impact.[5]

Nevertheless, most of these attempts to link national and regional GDP or productivity growth to cohesion assistance by econometric regressions are plagued with methodological, econometric and data weaknesses. Even if in principle regressions would be expected to be an adequate approach for a realistic "ex-post" assessment, standard growth regressions testing for absolute or conditional ß-convergence cannot as such provide any evidence on the impact and effectiveness of the EU cohesion policy. No causality can be inferred from either the occurrence or the lack of convergence or from its speed which may result from many economic, social and policy factors other than the EU assistance. No structural model of such a complex mechanism as growth can be represented by a single equation linking the former to one variable i.e. the amount of Structural Funds transfers as was done in Boldrin and Canova (2001) or two variables if initial income per capita is also considered. Moreover, since the beneficiaries of EU cohesion policy are poor economies, the amount of EU assistance works in some regressions as a proxy for the omitted variables that presumably explain why they have below average incomes.[6] As a result, the estimated coefficient on the volume of aid is negative while the inclusion of additional variables in the equation, even in a simple form, leads to a positive impact of EU assistance on growth.[7] In other words, imposing the assumption of absolute convergence creates a downward bias on the estimated impact of cohesion support while it can be significant and positive if convergence is only conditional, which seems to be the consensus view today. In addition, such regressions, when performed at regional (NUTS II) level, are faced with acute problems of data availability and reliability. Not only is the bulk of cohesion support national or transregional and thus difficult to attribute to regions but available statistics are insufficient to control for other factors that can influence growth.

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[2]   See e. g. Boldrin and Canova 2001, Ederveen and Gorter 2002 or Midelfart 2004.

[3]   See e.g. Ederveen and Goerter 2002.

[4]   See e.g. García Solanes and María-Dolores 2002 or Beugelsdijk and Eijffinger 2003.

[5]   See e.g. Fayolle and Lecuyer 2000; García Solanes / María-Dolores 2002 or de la Fuente 2003, although some do not find a positive impact such as Boldrin and Canova 2001 and Basile and Kostoris Padoa Schioppa 2002.

[6]   See de la Fuente 2003.

[7]   This is illustrated by Ederveen et al. 2002. Their results, at NUTS II regional level for the period 1981-1996, suggest a negative impact of the cohesion policy when other factors than initial productivity and cohesion support are not controlled for. When they are, the estimated impact is positive and significant. An additional amount of cohesion support of 1 per cent of GDP leads to an annual increase in GDP per capita of 0.7 per cent.

Consequently, results of regression based impact assessments have to be considered with extreme caution as they are not only very sensitive to the different methods, time periods and data sets on which they are based but also fail in many cases to include sufficient control variables to explain the complex convergence process.

As an alternative method for the assessment of the impact of the EU cohesion policy macroeconomic model simulations are applied. Modelling has two main advantages. It shows how the policy affects the demand and supply sides of the domestic economy depending on a wide range of other factors and allows for a counterfactual (i.e. without policy) simulation. On the other hand, simulations tend to assume that cohesion support is fully turned into productive public investment, overlooking possible weaknesses in policy delivery. They may thus assess the potential rather than the actual impact of the cohesion policy.[8] However, several positive effects are not reflected in the model simulations. Possible examples are: strengthening the strategic planning capacity by setting-up of an integrated development strategy in a multi-annual framework; introducing or enforcing the monitoring and evaluation culture or financial management and control rules and minimal standards for public procurement.

Two frequently used macro-economic models are *QUEST II* and *Hermin*, trying to assess both (short term) demand side and (long term) supply side effects by comparing the simulation results with and without Structural Funds support.[9] The *Hermin* results of the ex-post evaluation for the last programming period (1994-1999) identify their continuing supply-side effects by assuming that funding terminates after the programming period. The results for the cohesion countries (see figure 1) range from a relatively modest long-term impact in the cases of Greece and Spain to a real GDP level in Portugal that is more than 2 per cent higher in 2010 than in the absence of Structural Funds and national co-financing, both ending in 2000 according to the assumption made for the calculation.

Figure 1**: Impact of the European regional policy, programming period 1994-99**

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[8]   See Ederveen et al. (2002).

[9]   A short description of these two models with further references also to other models and approaches can be found in European Commission 2004c.
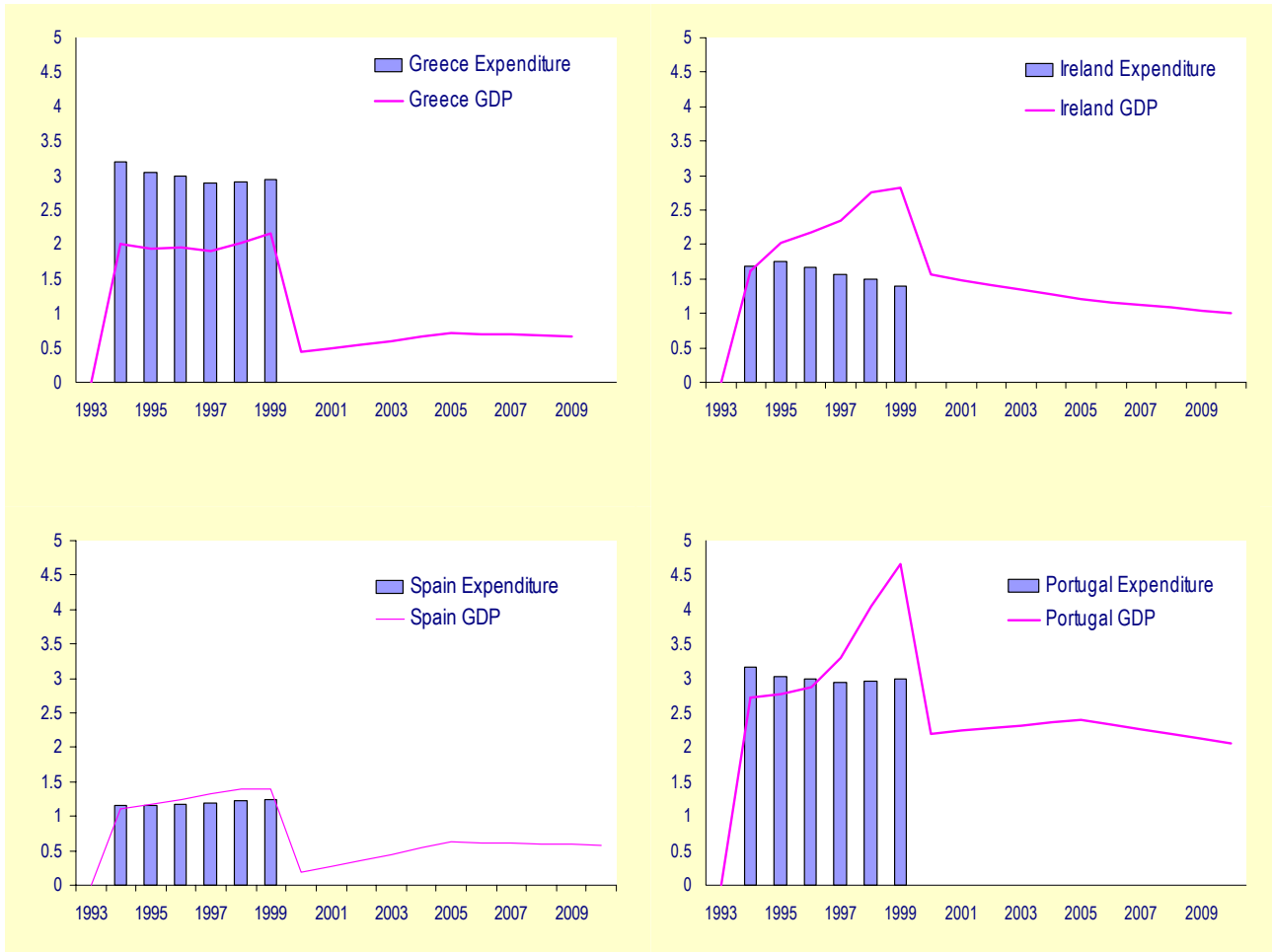
Note: Bars: CSF expenditure as percentage of GDP of the programming period 1994 – 1999, i.e. under the assumption of ending support in 2000; lines: CSF induced change of GDP level against baseline in percent.

Source: European Commission 2003a.

The results of the ex-ante macroeconomic evaluations for the new Member States are not easily comparable as the applied methodologies are heterogeneous. However, they also show a substantial impact. In Poland, for example, according to the *Hermin* model's impact assessment, real GDP would be higher in 2010 by approximately 1 per cent due to the support provided in the period 2004 to 2006.[10]

Summing up, while the magnitude of the impact may vary depending on the model specifications, the economy's characteristics, the amount of assistance and the types of public investments targeted, all model simulations conclude that cohesion support contributes significantly to growth and employment at national and, when analysed, at regional level. The role of the Structural Funds is, in essence, to co-finance investments in physical and human capital, using financial means coming mainly from other economies. If public investment has an impact on productivity

and growth as well as a leverage rather than a crowding-out effect on private investment, EU cohesion policy can be expected under both the neo-classical and the endogenous growth models to be effective since it adds to physical and human capital stocks and promotes technological progress. EU regional policy should therefore have the potential to significantly contribute to growth and employment in the recipient regions and Member States. There is nevertheless a range of factors that could hamper such effectiveness. To what extent this potential is realised, therefore depends on various conditions.

2 The role of national policies

A sound and supportive national economic and political environment can be regarded as a necessary condition for maximising the impact of Structural Funds. Structural Funds cannot achieve a self-supporting growth led by additional private investment, if national economic policies have not achieved sound framework conditions. In this context, the importance of the national political environment has three main aspects: First, a sound macroeconomic and regulatory framework, national regional policies, and good governance including administrative capacity.

In the area of a sound macro-economic environment the general and country-specific recommendations of the Broad Economic Policy Guidelines (BEPGs), where in 2004 the new Member States have been included for the first time (European Commission 2004a), show the still existing need of further reforms and progress. Several countries have also been given specific recommendations concerning their regional labour markets. In particular, measures allowing wages to better reflect productivity and skill differentials would facilitate the attraction of investment flows into higher unemployment areas. However, the 2004 report on the implementation of the 2003-2005 BEPGs (European Commission 2004b) indicates that progress made by the EU-15 Member States remains uneven and overall insufficient.

Empirical studies show that a sound economic-political environment not only increases the growth and employment perspectives of the corresponding country and its regions, but is also crucial for the effectiveness of international support. Drawing on a study by Burnside and Dollar (2000), Ederveen et al. (2002) perform cross-country regressions on the effectiveness of Structural Funds with panel data for 13 EU countries and 7 year-periods from 1960 to 1995, based on a standard neo-classical growth model as introduced by Mankiw, Romer and Weil (1992). When they introduce into their regression a variable that proxies openness; the interaction

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[10] First *Hermin* based estimations for the programming period 2007 – 2013 (Bradley et al. 2004) show a substantially higher

is significantly positive. Similar results are obtained with some variables which proxy the institutional context, namely a corruption perception index and an index of institutional quality. These results, in line with previous studies on the determinants of long-term growth, tend to confirm that the effectiveness of the cohesion policy is highly dependent on the growth-orientation of national policies.

EU Structural Funds have to a certain extent internalised some of the implications: First, the payments of the Cohesion Fund are conditional upon sound public finances. Second, a reference to the key role of national policies for the impact of Structural Funds has been introduced, in particular, in the programming documents 2004-2006 for the new Member States. These include, inter alia, macroeconomic stability, the continuation of privatisation and restructuring, a reduction and re-orientation of state aid, the implementation of mechanisms reducing labour costs and improving flexibility (and mobility) in the labour market. They can translate into concrete requirements e.g. on the pursuit of labour market reforms including the obligation to report to the Commission on progress and results.

Besides the macroeconomic environment, an effective national regional policy is needed for the achievement of real convergence between European regions. Regional policy instruments used by the Member States can be classified mainly into two categories: on the one hand instruments with a rather redistributive character, aiming at an equalisation of public finance resources or living conditions among regions; on the other hand pro-active policy measures aiming at achieving economic development in the poorest regions. However, even if a "tendency for the policy focus to shift to wealth creation from wealth distribution" (Yuill and Wishlade 2001) can be observed, national regional policies, if compared with the pro-active design of EU Structural Funds, are still rather redistributive in nature. In Germany, for example, estimates on the gross transfer to eastern Germany arrive at € 116 billion in 2003 and net transfers representing nearly one third of eastern German GDP. The main part of these transfers is redistributive as transfers via the social security system or unconditional grants represent 45 per cent and 21 per cent of gross transfers respectively. In contrast, only 9 per cent of gross transfers are spent for support to the private sector and 13 per cent for infrastructure investment.[11] A mix of fiscal transfer schemes and active regional policy exists also in other Member States like Spain.[12]

A further factor of crucial importance for the impact of Structural Funds is a sound institutional and public administration environment. One of the expected effects of Structural Funds is the

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impact particularly in the recently acceded Member States.

[11] See Institut für Wirtschaftsforschung Halle (2003).

[12] See e.g. Davies and Hallet (2001).

improvement of the administrative capacity due to co-financing of capacity-building measures and the introduction of corresponding legislation. This is of particular importance to the new Member States as their institutional quality is in general poorer than in the old Member States[13] and because they still have to adapt to the management system of the Structural Funds as most incumbent Member States have done more than a decade ago. Consequently, guaranteeing a substantial absorption of the Structural Funds can be seen as one of the crucial challenges for the new Member States.

3 Achieving spatial concentration

For the achievement of a significant impact on convergence in Europe, cohesion policy has in the first place to concentrate its scarce financial means, representing about half a percentage point of EU GDP, on those regions and Member States most in need. Eligibility criteria for Cohesion and Structural Funds try to achieve this spatial focus. While the Cohesion Fund supports Member States having, in the reference period, a Gross National Income (GNI) per capita in Purchasing Power Standards (PPS) below 90 per cent of the EU, some 65 per cent of Structural Funds (SF) are allocated to the poorest, so-called Objective 1 regions with a GDP per capita in PPS below 75 per cent of the EU average. Figure 2 shows on the one hand that these eligibility criteria have been instrumental in achieving a spatial focus, on the other hand it makes clear that, at the same time, relatively rich countries, well above the EU average, also receive substantial support. This has led to strong criticisms and proposals to grant Structural Funds only to poorer Member States, while comparatively rich Member States should support their poor regions from their own financial means and reduce their contributions to the EU budget accordingly.[14] This discussion gained importance through EU enlargement because the need to spatially concentrate Structural Funds has become even more urgent with the accession of ten countries with income levels below – and often far below - the EU average, increasing the diversity within the EU substantially.

Figure 2: Relation between per capita income and funds by member state

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[13] See chapter 2, section 3.2.3 in European Commission 2004c.

[14] See Ederveen et al. (2002), Weise (2002) or Sapir et al. (2003).
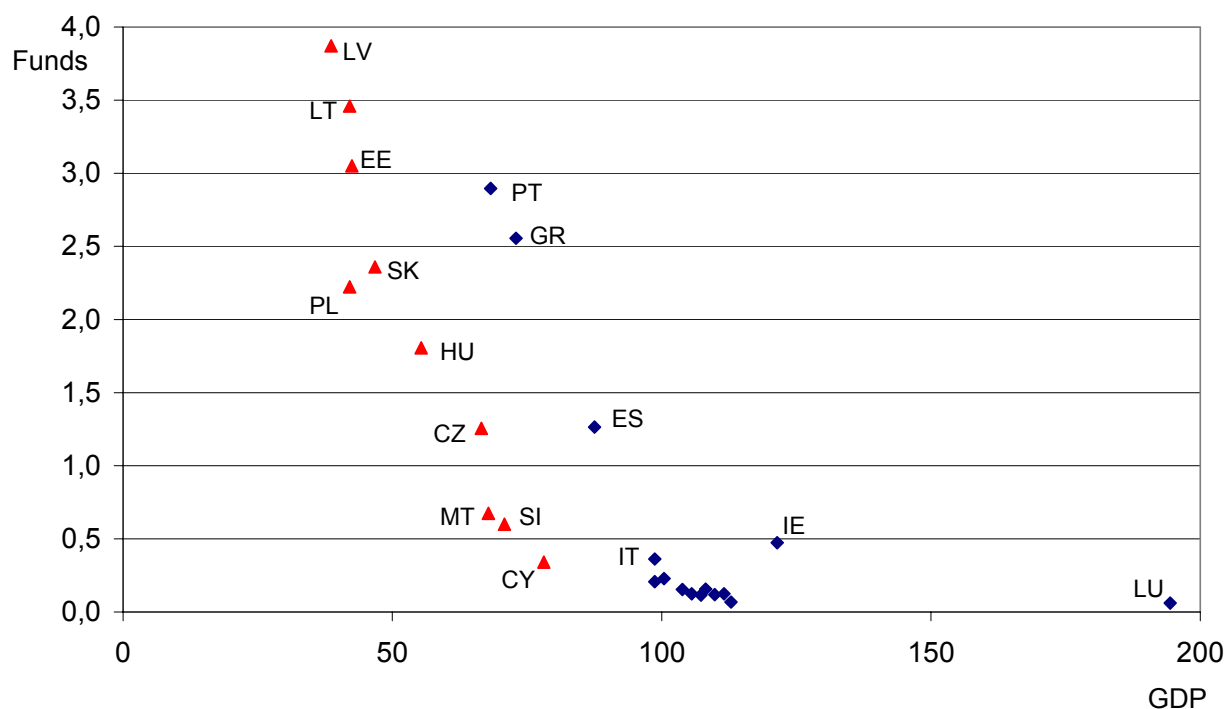
Notes: Funds: Annual average of Estimated Commitments for Structural Funds and Cohesion Fund as % of GDP.
GDP: GDP per capita in PPS in 2003, average of EU15 = 100.
Source: Own calculations based on Eurostat and European Commission (2004c).

An additional effect of accession is that the average level of GDP per head has decreased statistically by nearly 10 per cent. As a consequence, some regions in EU-15 Member States having a GDP per capita in PPS below the ceiling of 75 per cent surpass this threshold when measured against the EU-25, exclusively due to the inclusion of poorer Member States.[15] On the one hand, it can be argued that their economic situation has not changed through the purely statistical effect and therefore support has to be continued. On the other hand, allocation of scarce financial means requires prioritisation and Structural Funds should favour only the poorest, i.e. nearly exclusively the new Member States and their regions.

A second crucial aspect of spatial concentration of the Funds is the possibility of an equity/efficiency trade-off as for example described by the Kuznets-Williamson hypothesis[16] Particularly in earlier stages of a country's catching-up process the maximisation of national growth can be accompanied by a (temporary) rise in regional inequalities as economic growth is driven by only few growth poles. Current experience of the new Member States supports this

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[15] See e.g. the main regional indicators in the annex of European Commission 2004.

[16] See e.g. section 2.3.2 of chapter 2 in European Commission 2004c.

argument as national growth in these countries seems to be largely localised in the most dynamic areas around the capital cities and other major agglomerations where investment, including public investment, is likely to be more productive.

These findings have important implications for regional policy. Namely, consideration should be given to proper sequencing when designing the strategy for EU regional policy by taking into account the differences between the stages of development achieved in the catch-up process. In those countries where the convergence gap is highest, in particular when the territory is completely covered under Objective 1 like in most new Member States, more emphasis should be given to national growth as trying to counteract market forces would be inefficient if not even unsuccessful.[17] In those incumbent Member States which have already reached an income level which is closer to the EU average, relatively more focus can be given to the reduction of regional income dispersion.

Sequencing and prioritisation have, to some extent, been implemented in the EU-15 cohesion countries. In Ireland, the country with the most impressive growth performance, the main objective since the 1960s has been the maximisation of national growth. It is only towards the end of the 1990s that a specific regional policy has emerged and more emphasis has been given to the reduction of regional inequality. Similarly, in the 2004-2006 period, structural expenditures in the new Member States have been mainly focused on national, interregional measures.

Linked to the trade-off between equity and efficiency within a country, the third aspect of spatial concentration concerns the intra-regional focus of regional policies. According to the New Economic Geography (NEG), enterprises can tend to locate in clusters and areas with high purchasing power and close to other enterprises in order to benefit from agglomeration economies.[18] This can at least partially explain why, in the new Member States, business activities tend to locate in the most developed areas.

In this context regional policy has to make a strategic decision between supporting on the one hand the development of clusters and growth poles and thereby increasing overall growth or trying on the other hand to favour the dispersion of economic activities. The latter may be particularly inefficient at early development stages and may run counter to market forces. For instance, the relocation of public enterprises to southern Italy from the 1960s to the mid-1970s with national support under the form of capital grants and wage subsidies did not succeed in

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[17] De la Fuente (2004) shows that overall efficiency can be increased when EU regional policy follows efficiency considerations while national policy instruments are used for redistributive purposes.

[18] For an overview see Puga 2002.

attracting small and medium-sized private firms and thus in enlarging the industrial basis in the South. While clusters have developed in the Centre-North, no similar agglomeration effects can be found in the Mezzogiorno. On the other hand, the promotion of clusters has been a major feature of the Irish development strategy since the 1970s and horizontal and vertical linkages between industries and research centres are promoted in Portugal. However, as has been argued by some authors, artificially creating comparative advantages has in most cases proved to have little impact.[19] Therefore, regional policy should rather try to build upon existing clusters than try to create new ones. Dispersion of activities is more an issue in relatively wealthy member states where costs of agglomeration, such as high factor prices, pollution, and congestion tend to overwhelm agglomeration benefits. However, a more complete internalisation of negative externalities through efficient pricing and environmental taxes may be more efficient instruments than regional policy in order to divert activities towards other areas. Still, it has to be underlined that firstly: giving priorities to some regions does not imply a black or white decision, secondly: several measures like intra- and inter-regional infrastructure investments also link remote areas to growth poles and that thirdly the population in rural areas are also taking part in projects like education measures in urban centres.

4   The strategy and investment mix

EU regional policy is based on a pro-active, allocative approach aiming primarily to enhance efficiency and growth in the economy supported. The co-financing of investment targeting the determinants of long-term sustainable growth should:

- improve the availability of public goods, i.e. mainly basic infrastructure,
- enhance human capital, and
- improve the business environment for private investment and offering investment support.

However, empirical evidence indicates that not all of these investments are equally effective under all circumstances. Rodriguez-Pose and Fratesi (2002) test the design of the development strategies co-financed by the Structural Funds. They regress Structural Funds commitments for each of the four main areas of intervention (infrastructure – business/tourism – human resources – agriculture/rural development) on regional growth in all NUTS 2 and Objective 1 regions for three periods from 1989 to 1999, also taking into account a number of structural variables. They find that agricultural/rural support has a strong immediate effect on growth in Objective 1 regions but this impact vanishes almost immediately and turns negative in later years, suggesting that it

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[19]   See e. g. Midelfart-Knarvik and Overman 2002 and Midelfart 2004.

fulfils an income support rather than a sustainable development objective. Returns to infrastructure in transport and environment as well as business/tourism are relatively disappointing having little or no short-term or medium-term impact. However, for infrastructure, this result may be due to a too short period to assess its full impact. Human resources, on the other hand, have both short-term and medium-term impacts if some characteristics of the labour market are controlled for. On the whole, regions with a balanced distribution of funds have performed well while those with unbalanced strategies (e.g. emphasis on business support or agricultural/rural preferences) have not. Such results contribute to highlight the importance of adequate strategies i.e. the investment mix chosen for co-financing as the third condition for an effective regional policy.

As the list of eligible expenditures for EU Structural Funds support is long and not all eligible expenditures can be regarded as equally effective, the strategy and main areas of support have to be adapted to the needs of the corresponding Member States and regions. Therefore, programmes are set up in a bottom-up approach. Regional and national authorities present, ideally based on a sound analysis of the current situation including a SWOT analysis and with involvement of the relevant actors, development plans which are then negotiated in partnership with the European Commission and adopted as multi-annual programmes. Even if the programmes have to reflect the needs in the individual area, both theoretical and empirical economic literature offers some general guidelines which a strategy could follow and what should be avoided. Therefore, in the following section evidence on the effectiveness of different types of investment is first discussed before analysing the strategy chosen for Structural Funds support in the old and the new Member States.

Infrastructure projects are one of the main areas of Structural Funds co-financed investment. A relatively abundant literature argues that enhanced endowments in transport infrastructure raise the total factor productivity of all inputs (i.e. via reduced transaction costs for enterprises and also improving workers' labour mobility) and thus the growth perspectives of regional or national economies. This is supported by evaluations of Structural Funds programmes and numerous empirical studies.[20] However, the available empirical evidence is still subject to debate as causality and econometric issues have not been fully clarified. Three main points seem to emerge from the existing literature. First, the provision of transport infrastructure can be regarded as a necessary precondition for economic development, but will not per se solve all problems of

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[20] See e.g. Moreno et al. 2002, de la Fuente 2003a or del Mar Salinas-Jiménez 2004.

lagging regions, especially if they lack adequate factors of production. Second, the returns to such investments are probably high when infrastructure is scarce and basic networks have not been completed but may be decreasing if a certain threshold has been reached. Both theoretical models (see e.g. Baldwin et al. 2003) and empirical studies (e.g. Bougheas et al. 2000) show a non-monotonic relationship between infrastructure and long-run growth. This is to be taken into account in the context of EU enlargement, where regions with a substantial lack of infrastructure (in most new Member States) co-exist with regions with higher endowments. Finally, according to the New Economic Geography, infrastructure opening up interregional trade may under certain conditions have the paradoxical effect of concentrating production in the wealthier regions. However, the evidence is quite mixed. Concentration has been highlighted in some cases[21] while a positive effect on disadvantaged regions has been evidenced for others.[22]

Besides transport infrastructure, increasing support is given to environmental infrastructure like waste water treatment plants. Even if the short term contribution of these investments to growth and employment is ambiguous[23], European Structural Funds contribute, if effectively spent, to the achievement of a long-term sustainable development in all European regions. Finally, as the discussion of the "new economy" has shown[24], not only investment in transport but also in information and communication infrastructure can substantially contribute to productivity and growth. Therefore, investments in information society related infrastructure are eligible for structural funds co-financing as long as similar investments cannot be expected to be undertaken by private means.

Recent theories of economic growth, in particular the literature on endogenous growth, point to the important role of *human capital*. The result that economies only grow fast if they have high levels of human capital seems robust both theoretically and empirically. This is confirmed by cross-country studies like Mankiw, Romer and Weil (1992) and Barro and Lee (1994) and similar studies inspired by these papers.[25] However, studies tend to assess human capital at a very aggregate level without precisely defining the mechanisms through which it influences economic growth. The specific types of educational and training expenditures to be undertaken by policy-

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[21] See Combes and Lafourcade (2001) or Faini (1983).

[22] See e.g. Martin and Rogers (1995).

[23] See chapter 6 of the European Economy Review 2004, European Commission 2004c.

[24] See e.g. Stierle 2000.

[25] Some studies (e.g. Pritchett (1998) or Caselli et al. (1996)) using different (panel data) techniques have questioned the link between education and productivity, but recent investigations explain their negative results by poor data and econometric problems.

makers are thus less clear. A recent study[26] provides policy suggestions, to be adapted to the specific national and regional conditions, in favour of a moderate increase in human capital investment but not in favour of an across-the-board increase in subsidies for post-compulsory education as incentives for individuals to invest are found to be adequate. More important may be the elimination of implicit barriers to access to higher education such as liquidity constraints and lower basic skills levels among individuals from disadvantaged backgrounds. In addition, guidance on the most productive types of investments include giving technology-related skills to a broad segment of the population, supporting life-long learning and improving conditions for the accumulation of research-related human capital.

Even if in the area of the *support for the private business sector* some part of the Structural Funds are used to co-finance the provision of technical and business services (mainly to SMEs), technology diffusion and more market-based forms of investment financing, the co-financing of direct state aid to enterprises remains quantitatively a main area of intervention.[27] Such aid can have important deadweight, displacement or substitution effects which call into question the impact of support and subsequently the effectiveness of EU cohesion policy.[28]

Evaluations of state aid are relatively scarce. Nevertheless, the extent of their effects has been assessed by some studies, in nearly all cases concluding that only 10 per cent to 20 per cent of the projects are not subject to total or partial deadweight.[29] Consequently, co-financing of state aid seems not be the most effective channel for EU cohesion policy. Therefore, EU cohesion policy should be targeted to those investments where deadweight seems lower according to existing studies, namely in start-up companies, in small businesses and for technological upgrading, research and development and human capital training.

Besides these types of investment, support for rural development, mainly for the agricultural sector, is quantitatively the most important area. However, the economic importance of primary agriculture for the economy as a whole is limited, even in predominantly rural areas within the enlarged EU. In addition, the trends clearly indicate a further decline in the agricultural share in

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[26] De la Fuente and Ciccone (2002). See also Chapter 3 in the EU Economy Review 2003, European Commission 2003b.

[27] However, it is incorrect to assume that EU Structural Funds would mainly distribute state aid, and conclude, based on this assumption that Structural Funds are ineffective as in Midelfart-Knarvik and Overman 2002 or Midelfart 2004.

[28] A deadweight effect is if the enterprise would have invested even without support; a displacement effect is if it would have invested anyway but in a different region and a substitution effect is if a different enterprise would have undertaken the investment.

gross value added and employment. Thus, in order to help lagging rural areas, it seems necessary to concentrate the efforts increasingly outside the agricultural sector. The standard measures targeted to the agricultural sector are, furthermore, not exempt from criticism. Early retirement schemes for instance have little proven effects on the restructuring of the sector and run counter to the Community employment strategy by reducing the participation rate. The lump sum support to farmers in rural areas is neither targeted nor supportive to a positive sectoral restructuring. Moreover, empirical studies[30] indicate that farm investment support could be implemented more efficiently. Finally, it should not be forgotten that this sector already receives substantial financial support from the market and income oriented measures of the Common Agricultural Policy.

Furthermore, Structural Funds also offer co-financing of projects where the link to economic growth and employment is in most cases doubtful. For example, a positive impact on regional development will be difficult to find for most small scale cultural projects or support for sport facilities.

The investment mix in the EU-15 and the new Member States

For the EU-15 Objective 1 regions (see tables 1 and 2) there is mixed evidence on whether financial support is shifting over time towards investments that are more conducive to growth and employment or not. Using very rough categories and only considering Structural Funds, the share of basic infrastructure has increased in the first years of the current programming period compared with the late 1990s. In contrast, the share of the support for human resource development has been reduced. However, as Table 2 displays, this is not only due to investments in "concrete rather than brain", but it is also due to a stronger focus on environmental and ICT investments. In addition, Structural Funds can be more easily absorbed by large projects than by smaller and more complex projects. Consequently, Member States might have the incentive to use structural funds rather for transport infrastructure projects like constructing highways while using national means rather for small projects in the area of human resource development. In fact, national and structural funds show diverging developments for infrastructure and HRD related investments.

Table 1: Financial allocation of public spending eligible under Objective 1 in % of total

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[29] For a literature review incl. a discussion of the methodologies applied see Gerling (2002). For empirical studies, applying heterogeneous methodologies and analysing different kinds of aid schemes see e.g. Honohan (1998), Barry (2003) and Lenihan (2004) for Ireland, Arup Economics and Planning (2000) for the UK or Gerling (2002) and Ragnitz (2003) for Germany.

[30] See e.g. studies by Striewe, Loy, Koester (1996), Ebers (1998) and Forstner and Clemens (1998).

	Investment area	Old MS 1994/99	Old MS 2000/02	New MS 2004/06
National without EU co-financing	Infrastructure	51.7	43.5	58.4
	human resources development	28.4	36.2	19.8
	aid to the productive sector	19.9	20.3	21.8
National co-financing	Infrastructure	40.3	39.0	43.3
	human resources development	20.2	24.8	24.4
	aid to the productive sector	39.5	36.2	32.3
EU Structural Funds	Infrastructure	33.4	36.1	44.9
	human resources development	29.3	28.8	25.8
	aid to the productive sector	37.3	35.1	29.3

Percentage share of the corresponding investment area in total expenditures excluding other spending. Data for the new Member States are ex-ante.

Source: Own calculations based on tables submitted for the verification of additionality of Objective 1 programmes.

Table 2: Financial allocation of EU Structural Funds in EU-15 in % of total

	Objective 1		Non-Obj.1
	1994-99	**2000-06**	**2000-06**
Infrastructure	**29.8**	**41.3**	**14.1**
Transport	15.7	19.8	3.5
ICT	1.6	3.5	1.7
Energy	2.3	1.2	0.4
Environment & water	7.5	12.8	7.5
Health & social inf.	1.7	3.9	0.7
Other	1.1	0	0.3
Human resources	**24.5**	**23.1**	**53.3**
Education	6.9	n/a	n/a
Training	17.4	n/a	n/a
Other	0.1	n/a	n/a
Productive Environment	**41**	**33.8**	**29.1**
Industry and services	19.9	11.3	15.8
RDTI	3.5	6	4.5
Agric./rural dev./ fishery	15.2	13.7	5.1
Tourism	2.4	2.7	3.7
Other	**4.6**	**1.8**	**3.4**
Total	**100**	**100**	**100**

Source: European Commission 2003, p. 56 and 2004 pp. 182 and 185.

In the recent process of Objective 1 programming for the new Member States, the focus was on the main determinants of higher productivity and, in those countries where the labour market situation is a key challenge, on a rapid improvement in the use of human resources. Growth and employment have thus been the two main criteria against which priorities, investments and measures were selected. The approach of the new Member States and the Commission was to maximise, in partnership during the negotiations, measures with higher growth and employment potential, to promote concentration, suppress or at least reduce redistributive types of measures and to avoid the creation of distortions in economic activity. Against the background of uneven effectiveness of different investment areas as highlighted by available evidence, the aim was to select both adequate priorities and an effective mix of measures within each priority. The final results on the level of the Operational Programmes are illustrated for the four largest new Member States in table 3. Even if the figures on the financial allocation are not directly comparable,[31] they indicate that the higher investment need, compared to the EU-15, in the area of basic infrastructure has been reflected in the programmes and that more emphasis has been given to human resource development.

Table 3: Financial allocation in the new Member States

	Regional development	Human resources	Competitiveness and enterprises	Infrastructure*	Agriculture, rural development incl. fishery
Poland	35.9	17.8	15.1	14.1	16.8
Hungary	18.0	28.2	21.5	16.4	15.9
Czech Republic	31.2	21.9	17.9	16.9	12.0
Slovakia		27.3	14.5	40.6	17.6

*Figures given in % of total, Cohesion Fund and Technical Assistance Priorities excluded. *Excluding regional and local infrastructure, except for Slovakia. Source: European Commission 2004c.*

For regional programmes the aim was to avoid that they mimic the CSFs at regional level and widely disperse resources into numerous priorities and measures with most likely little effect on long-run growth and employment. Consequently, an even distribution of the Structural Funds across the whole territory as well as one favouring the most backward regions has been avoided. Focus was given on investment in areas and urban centres with growth potential while providing the necessary infrastructure to allow for their inter-connections and connections with major

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[31] Programmes with similar objectives are in different countries not identically designed. For example, a major part of the Polish Integrated Regional Development Programme is devoted to infrastructure, largely explaining the differences compared to other new Member States in the percentage shares of the corresponding two Operational Programmes.

transit routes. Financing of small-scale regional transport infrastructure was substantially reduced. The numerous requests for regional/local cultural or sport facilities were reduced in terms of financial allocations and made subject to conditions, in particular economic sustainability and significant regional economic impact. This has resulted in an overall scaling down of the regional programmes.

Since the development of human resources is key to long-term growth, the allocations to the corresponding programmes were increased both where employment is a major challenge as in Poland and where higher qualifications are called for by the upgrading of economic activity and by the need to activate participation in the labour market. Especially for human resources the measures have to be tailored to the country's situation. For example in Hungary where both unemployment and the participation rate are low and where in some sectors and regions shortages of highly skilled workers can be observed, the focus was put on those measures likely to increase participation and on education and training. In contrast, for example in Poland and Slovakia where unemployment is a key challenge, measures for social inclusion were granted limited financial allocation to the benefit of active labour market policies and in the latter support was shifted towards groups with the highest possibility to (re-)enter the labour market like the young.

Due to the high deadweight and displacement effects of state aid and because of the already high level of state aid in most new Member States,[32] it was in most cases agreed to reduce the support of EU Structural Funds to this area. This resulted, if not counterbalanced by increasing support for the business environment as in the Czech Republic, in a reduction of the competitiveness/enterprises financial allocations e.g. in Poland and Hungary. Simultaneously, state aid was re-oriented towards SMEs and targets ensuring that priority is given to SMEs in the financial allocation have been set for example in Poland, Hungary and the Czech Republic. All sectoral preferences were suppressed to avoid "protecting" declining industries or trying to pick up winners by targeting manufacturing or specific "high-tech" sectors. The remaining measures in this priority are thus more focused on soft aid for knowledge, innovation and technology and the business environment.

More emphasis was put on infrastructure as this is regarded as a major weakness impeding higher growth in several new Member States. A hierarchy of priorities for the period 2004-2006 were followed with a view to maximising investments that yield higher returns in terms of enterprises competitiveness while facilitating labour mobility. This has lead, depending on the situation in

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[32]   European Commission (2004e).

the country, to giving international and interregional transport infrastructure clear priority and to suppress or impose conditions on aid for regional airports.

Even if agriculture is still of importance for some rural areas in the new Member States, it is questionable if this sector will be a driving force for growth and employment. In contrast, major restructuring and labour adjustment are still needed in some countries which will add to the expected decrease of the share of agriculture in gross value added and employment. Consequently, assistance for agriculture was reduced. Moreover, efforts were made to give higher importance to rural development aimed at offering alternative employment at the expense of state aids for the processing industry and on-farm investment support.

5   Effective use of funds

The fourth elemental condition for the European Funds to have a real impact is that they are effectively implemented, including an efficient administration and that crowding-out can be avoided.

The extent to which EU cohesion policy will be turned into capital formation depends on the magnitude of the administrative costs as these divert expenditures from productive investments. Costs can result form insufficient management and can be improved by capacity-building measures increasing public administrative efficiency. Though necessary, such measures will in turn diminish resources for investment. Costs can also result from regulatory complexity. The requirements of the Structural Funds regulations imply somewhat complex procedures and thus transaction costs for programming, monitoring, evaluations and control systems. Simplifications have been introduced, but there is a trade-off between simplicity and accountability. All the more so since the final accountability for the use of Structural Funds lies in the hands of the European Commission. The regulation for the current 2000-2006 programming period has tried to set incentives to achieve high quality in the implementation of Structural Funds programmes by introducing two new instruments. First, the "n+2"-rule has been introduced, according to which all commitments not implemented at the end of the second year after the year of commitment are automatically decommitted. Second, in 2004 the allocation of the reserve of about 4 per cent of total funding 2000-2006 has been executed with rather heterogeneous results (European Commission 2004d).

Structural Funds can also only effectively contribute to real convergence, if they do not lead to a crowding out of private or public national investments.[33] However, as Structural Funds mainly

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[33] This risk has been highlighted e.g. by Ederveen et al. 2002.

co-finance typical public investments where market failures can be assumed like the provision of environmental, educational or transport infrastructure, a crowding out of private investment is rather unlikely as they should rather stimulate private investments by an improvement of the business environment and reduced transaction costs. For national public investments, the principle of additionality has been enshrined in the Structural Funds regulations requiring for Objective 1 programmes that Member States agree ex-ante with the European Commission on a target for national public eligible expenditure that generally should not be lower than the level achieved during the former programming period. Ex-post and mid-term verifications for the periods 1994-99 and 2000-06 show that in most Member States additionality has at least nearly been met and that this result can be expected as well for the current period (European Commission 2004c, table 15 of chapter 2).

Conclusions

As has been shown by impact assessments based on macroeconomic modelling, in spite of its limited financial means, EU cohesion policy can have a substantial impact on catching-up. However, it can only have significant effects if several conditions are fulfilled, and here experience in the recent years shows that room for improvement exists. Among the various factors influencing the effectiveness of Structural Funds in achieving real convergence, particularly against the background of enlargement, the following aspects are important:

- Stronger spatial concentration,
- Better thematic concentration,
- More effective use of funds.

Spatial concentration means concentrating Structural Funds on those regions and Member States most in need. This implies, first, a decision whether to continue supporting regions in relatively rich Member States; and, second, if and to what extent to continue the support in regions whose eligibility is affected negatively by the statistical effect of enlargement. According to the Draft Framework Regulation of Structural Funds for the programming period 2007 – 2013 (European Commission 2004f) the European Commission proposes to strengthen the focus on the new Convergence Objective by allocating 78.5 per cent of the resources to this objective, in comparison to 72 per cent for the Objective 1 regions in the current programming period. Structural Funds in "statistical effect regions" would be continued, but only on a transitional and decreasing basis that cannot be prolonged for the years after 2013.

Spatial concentration also means not counteracting market forces in the selection of areas for support. As a response to the possible equity-efficiency trade-off, i.e. that high catch-up growth might temporarily be accompanied by higher inequalities between regions, a sequencing approach initially emphasising growth of the national economy as a whole and at a later stage giving more prominence to addressing regional disparities could be followed in order to make regional policy more efficient. In parallel, the catching-up process of poorer regions might be accelerated by supporting their growth poles and by building on existing clusters. But one should avoid any artificial dispersion of economic activities or creation of new clusters.

Thematic concentration, in turn, means choosing an effective investment mix. The question of what is an effective investment mix can only be answered on a case by case basis after a sound analysis of the situation in the corresponding Member State and region. However, some general arguments can be made. First, infrastructure endowment can be seen as a precondition for growth, though not as a growth-enhancing investment per se. Second, even if it generally takes time to achieve a needed enhancement of human capital, this can be regarded as key to long-term growth. Third, aid to the productive sector should be limited to specific projects enhancing the business environment, and support for start-ups and SMEs. Thus, in the draft new ERDF regulation business support is always directly linked to SMEs. Fourth, support for rural areas should take into account the limited and declining importance of agriculture in the process of catching-up, and should be focused on providing alternative employment and development opportunities. Finally, projects of doubtful economic benefit – such as for example cultural projects –- should not be co-financed.

In order to guarantee the effective use of Structural Funds, the draft regulation proposes further simplifications for the management of Structural Funds in order to reduce administrative problems and costs. In addition, particularly in the new Member States, building up the necessary administrative capacity will be of crucial importance.

While the draft new regulation for Structural Funds aims to introduce a stronger regional and thematic concentration, the contribution of EU cohesion policy to real convergence will depend predominantly on Member States' own national and regional policies. The role of regional and national authorities in setting up strategies to support and implement Structural Funds programs will be of key importance. More broadly, Structural Funds cannot achieve a self-supporting growth led by additional private investment, if national economic policies have not achieved sound framework conditions.

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