

Györgyi Nyikos

# *The Impact of Developments Implemented from Public Finances, with Special Regard to EU Cohesion Policy*

**SUMMARY:** In the latest, most recent phases of the economic crisis when the economic and governmental actors are regularly consulting with each other about the direction that should be followed, it is essential to determine how to use the limited resources available – for the purposes of this topic, the resources aimed at development – in the most efficient and sustainable way. Naturally, in order to be able to assess the efficiency of resource use, one must first decide what should be measured and how. The assessment of public investments and the impact of EU cohesion policy is controversial; assessing necessity, utility and sustainability is no easy task. It is clear, however, that the terms of the assessment of development policy interventions have shifted from the success of the absorption of development resources towards a stronger enforcement of the aspects of efficiency and effectiveness.

**KEY WORDS:** development-oriented utilisation of public funds, investment impact, effectiveness-utility, evaluation

**JEL CODES:** R11, E61, O47, P47, P48, H50

The efficiency of public spending has been an important issue throughout the course of history, and in the current economic and financial climate, the questions of on what and how the scarce resources available are spent, and what the impact of this spending is are of particular importance. In connection with the development-oriented utilisation of funds, it is of fundamental importance whether the use of public funds is justified, which areas require development and where the best result can be ensured (value for money principle). The issue arises, however, when examining results whether said examination concerns the short or the long-run and at what regional level.

The question, of course, is what exactly we consider development. The debate on the

concept of development has been long on-going; it is no coincidence that we find no clear definitions in encyclopaedias or that various adjectives are used in various definitions. According to the classical production function approach, greater welfare can be achieved by increasing the three GDP components: quantity of capital and labour force, and total productivity. This approach also allows for instance the categorisation of the various investment interventions: infrastructural measures increasing state or corporate capital, and training and R&D interventions increasing employability and productivity.

Intervention logic deduces socio-economic-environmental objectives from social needs and assigns tools and resources. Fund utilisation transforms the socio-economic environment through outputs, results as well as intended

*E-mail address:* nyikos.gyorgyi@uni-nke.hu

and unintended impacts. The EU's cohesion funding basically finances state tasks.<sup>1</sup>

In Europe, at the community-level, cohesion policy serves as the framework for the development-oriented use of public funds, the funds of which provide a significant portion of community expenditures. In certain Member States, the rate of the development-oriented use of public funds depends on the level of development; and, though with a different financing rate, EU cohesion funds make up the financial sources of development and with the narrowing of available budget resources in the coming period, this will become even more emphatic. As a result, it is certainly justified to examine on which areas and how these funds make an impact, as well as how their development-oriented utilisation could be made more efficient and effective: where and how these increasingly limited resources should be focused.

## THE ECONOMIC INTERPRETATION OF THE EU COHESION POLICY

The point of cohesion policy has always been to contribute – through investments into structural change – to reducing socio-economic differences in the European Union and creating true convergence. The objective of cohesion policy is to increase economic performance in the regions, in particular with respect to GDP, employment, productivity, investments and the foreign trade equilibrium. Within the framework of the policy, significant amounts of public funds are utilised – with the financial resources appropriated for the 2007–2013 period totaling EUR 347 billion, cohesion policy is providing significant support to public investments in EU Member States and regions.

The regional disparities observed in economic performance and income level

in the EU are more extreme than in similar economies, in the US or Japan for example, particularly following recent expansions. The richest regions are eight times richer than the poorest. Regional income inequality in the EU is primarily manifested on an East-West tangent, while the North-South dynamic is somewhat more moderate; there is also disequilibrium between the centre and the periphery both at the EU and the national levels. The fundamental reason behind the introduction of the EU cohesion policy was to facilitate a balanced economic development of the European community covering the entire European Union (including all Member States). In order to achieve this, however, one must first balance out the differences between the levels of development of the individual countries and their regions in a manner that ensures that the conditions of long-term economic development are established even in the countries where the per capita income is lower. In this sense, the main task of cohesion policy is to accelerate and facilitate the real convergence process between the regions. The true necessity of this is proven by the disproportions among Member States with respect to per capita production; however, the differences are also manifested on the side of social development levels (life chances, training and social indicators, etc).

Therefore, the purpose of cohesion policy is to reinforce the economic, social and regional solidarity of the community, to ensure the harmonious development of the community as a whole, and to reduce the disparities between the regions in order to successfully combat the backwardness of the regions that are at more of a disadvantage. Development targets include both competitiveness and convergence, and there is an ongoing debate about the relationship of these to each other. Nevertheless, cohesion policy is a policy framework that serves European-level

solidarity, where the Structural Funds and the Cohesion Fund serve as resources of implementation.

Recently, the economic and financial crisis has called everyone's attention to cohesion policy within the context of speeding up economic recovery of the EU.

Cohesion policy invests in the real economy. Seventy per cent of the overall 2007–2013 budget was allocated to implementing investments in four key areas of the growth and job creation strategy of the EU: employment, enterprises, infrastructure and energy, research and innovation (*See Table 1*).

This emphasis is of the utmost importance, because these priorities can contribute to faster recovery, the improvement of competitiveness and helping the EU adopt better to a low carbon economy. With investments geared

towards key infrastructures, the production capacities of enterprises and human capital potential, cohesion policy can stimulate internal demand in the short term, while maintaining the direction of sustainability in the medium term. This allows it to play a significant role in restoring the faith in real economy.

The EU's cohesion policy is regional in nature, i.e. it takes regions and not countries as territorial units (with the exception of the Cohesion Fund). This not only makes supporting poorer countries possible, but will also make it possible to support the regions of otherwise developed countries facing serious structural problems, and the centre vs. periphery differences can be ameliorated in every Member State. The eligibility for the more sizeable part of development funds available in the various

Table 1

**INTERVENTION AREAS: SUMMED UP UNDER FIVE TITLES (AS A PERCENTAGE OF TOTAL)**

Member State	Industry and service support	Human resources	Infrastructure	R&D	Technical assistance
Belgium (BG)	8.36	20.89	62.50	4.67	3.58
Cyprus (CY)	14.99	20.45	50.95	10.03	3.58
Czech Republic (CZ)	8.39	15.56	61.09	11.58	3.58
Germany (DE)	23.12	22.43	31.07	20.83	2.56
Estonia (EE)	8.04	10.87	62.31	16.75	2.04
Spain (ES)	12.10	21.54	50.47	14.74	1.15
Greece (GR)	6.83	21.53	63.52	5.69	2.42
Hungary (HU)	13.18	15.12	61.92	5.91	3.87
Italy (IT)	16.54	18.22	54.80	8.60	1.83
Lithuania (LT)	8.06	13.45	62.23	13.26	3.00
Latvia (LV)	4.13	11.49	67.81	14.07	2.51
Malta (MT)	14.40	12.82	65.96	5.30	1.52
Poland (PL)	7.81	13.67	63.00	11.94	3.58
Portugal (PT)	10.47	32.22	40.78	13.60	2.93
Romania (RO)	8.95	18.62	65.19	3.65	3.59
Slovenia (SI)	9.01	15.82	54.42	18.65	2.09
Slovakia (SK)	5.43	11.75	70.05	9.32	3.44

Source: DG ECFIN

funds is determined on the basis of the development level within the NUTS2-regions<sup>2</sup>, and this development level is also what defines the support intensity<sup>3</sup> of public grants available to enterprises under the regulatory framework of the use of funds.

The development policy priorities defined by the Member States depend on the existing regional disparities as well as other factors (for example, social preferences, distribution of power within the country, nature of regional challenges and the available financial resources, etc.). At the same time, the policies aimed at eliminating the disparities have gradually shifted towards policies aimed at the reinforcement of regional and national competitiveness, which focus on the exploitation of regional potential with a view to contributing to national growth.

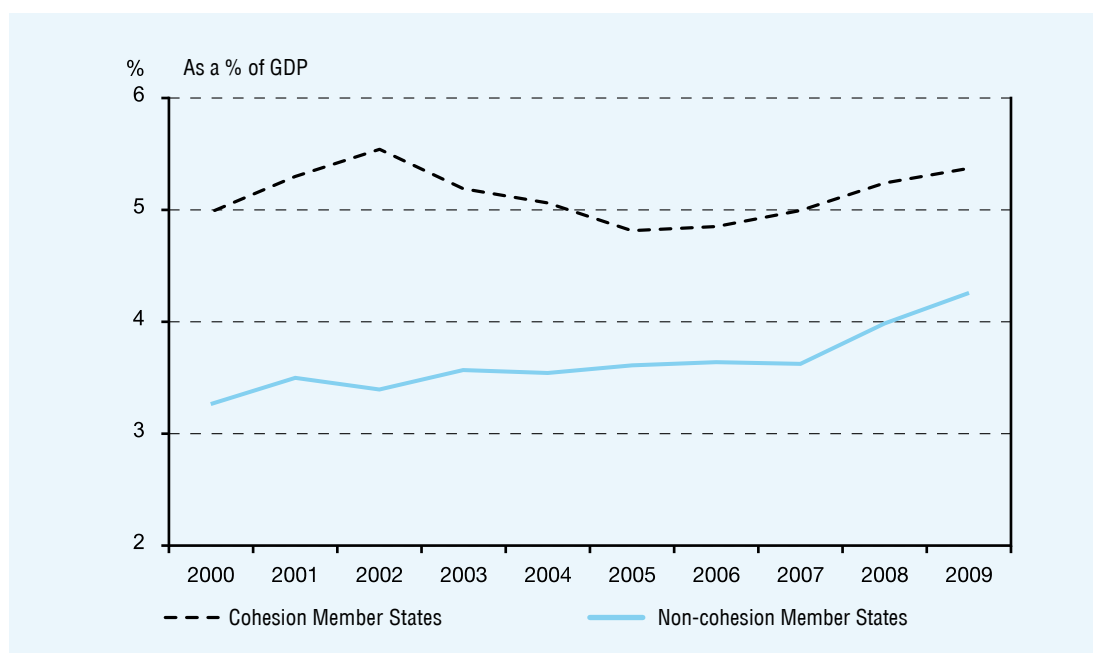
One of the unique features of the regional policy of the last ten years is that there has

been a certain shift towards supporting endogenous development<sup>4</sup>. Public investment policies aimed at reducing regional disparities should focus more on their effects on efficiency and economic growth as well as on their coherence with sectoral policy. There are fiscal equalisation mechanisms at work in the Member States, which promote the acceptable provision of public goods and public services in the country as a whole.

At the same time, in the less developed Member States the ratio of public investment is generally higher compared to the GDP (not, however, to the population). That is mainly the result of the grants advanced through the EU cohesion policy, which represent<sup>5</sup> nearly 55 per cent of the environmental public spending, more than 25 per cent of the transport, communication and energy public spending, and nearly 10 per cent of public spending on human capital development of the cohesion

Chart 1

### PUBLIC INVESTMENT AS A SHARE OF GDP IN COHESION AND NON-COHESION COUNTRIES



Source: Eurostat

countries<sup>6</sup>; secondly, the phenomenon reflects the relatively low supply level of infrastructure and, as a result, the greater need for investment compared to more developed countries. (See Chart 1)

In the recent period, public investments increased by approximately 14 per cent in real value in the EU. Growth was slightly higher in the cohesion countries (19 per cent) compared to the other countries (16 per cent), but there were considerable differences underlying the mean Chart; the real value of public investments in some of the cohesion countries has dropped (Greece, Hungary, Malta, Portugal, Slovakia), while in other countries it increased (Poland, Estonia, Romania, Lithuania, Latvia, Bulgaria). (See Chart 2)

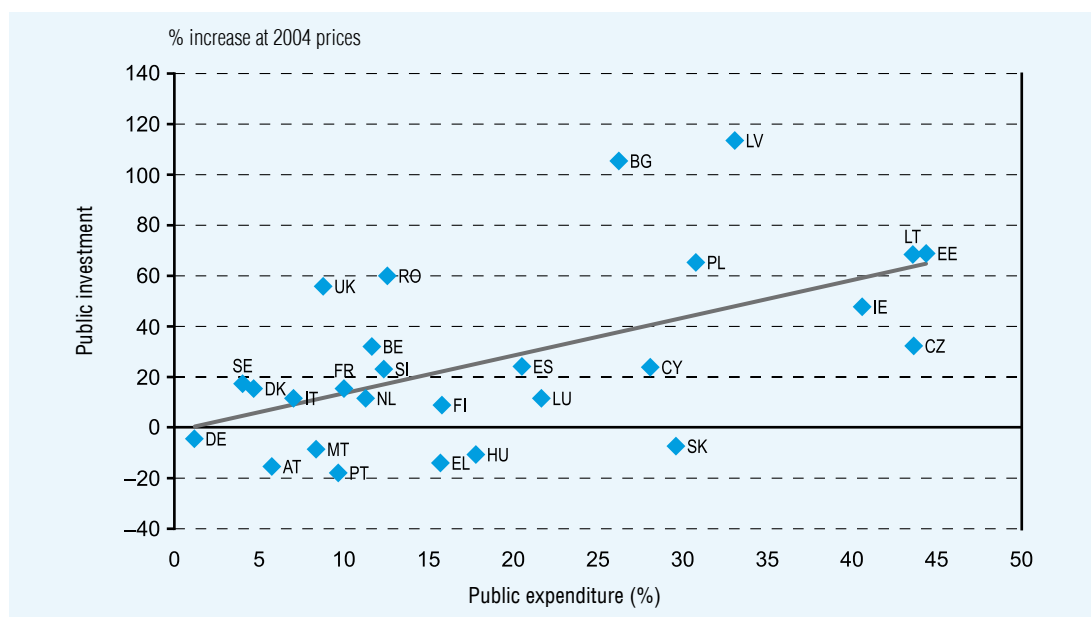
Based on the data, it seems there is a negative correlation between the change of public investments and the rate of public debt, which probably indicates that the necessary drop in

expenditures impacts public investments in particular. The countries where public investment in the 2000-2009 period was the highest compared to the GDP, also saw their per capita GDP Charts increase to the greatest extent (Luxembourg, Ireland, and the three Baltic states), although it is unclear which caused which.

As a result of the global financial and economic crisis the uncertainty about the future of the European economy and global economy is high. In this context it is even more important to examine the extent to which community policies have adapted to the challenges facing the European regions in the coming years, and what role these community policies should play in the responses given to these challenges. This situation has once again brought to the surface the two fundamental approaches to cohesion policy: is it in fact a mechanism of redistribution or a development tool? The

Chart 2

### CHANGE IN PUBLIC INVESTMENT COMPARED TO CHANGE IN TOTAL PUBLIC EXPENDITURE (2000–2004, 2005–2009)



Source: Eurostat, DG REGIO

adoption of the Europe 2020 Strategy<sup>7</sup> created a new strategic framework for the implementation of cohesion policy. Most of the areas of intervention of cohesion policy are in accordance with the priorities and targets of the new strategy. The key issue is to determine the logic behind the implementation of the interventions and the added value thereof to positive socio-economic changes.

### ECONOMIC THEORY APPROACHES TO THE EFFECTS OF DEVELOPMENT AND THE EVALUATION OF THE EFFECTS OF EU COHESION POLICY

The Commission is continuously trying to evaluate the utilisation of the funds used within the framework of cohesion policy, but the evaluation is exasperated by the differences arising from decentralised programming and execution and the lack of uniform methodologies and data. In addition, cohesion policy is only one factor in a complicated system; macro-economic developments, technological advances, and individual and corporate behaviour all have an effect on the economic, social and environmental processes.

Various methodologies can be applied to the evaluation task in order to gain a more detailed picture; as a result the work of the Commission and the Member States is aided by regional statistics, emission indicators, the analysis of control data, subsequent cost-benefit analyses, macro-economic models<sup>8</sup>, the application of models displaying the effects of changes<sup>9</sup>, and the preparation of case studies<sup>10</sup>.

The individual tools reveal important pieces of information – for example the output results (e.g.: length of roads built) may appear to be a good solution to follow-up on the programmes, but they say nothing about the economic effects, their justification

or necessity – however, they cannot in and of themselves present the effects of the policy; therefore, it would be reasonable to make evaluation observations on the joint application of these methods. Most often used methodologies to evaluate the efficiency of development interventions:

- econometric impact analysis based on micro data,<sup>11</sup>
- use of models based on macro-economic data.

The impact of cohesion policy on economic performance may be assessed through the use of macro-economic models. Macro-economic models are analytical tools designed to describe the economic mechanisms of individual countries or regions. The purpose of the models is to examine the changes in macro-economic variables, such as economic growth, employment, investments and prices. Today there are several model families<sup>12</sup>, which can be used to answer different kinds of questions. They can be used to map out and test theories of economics, and to forecast the effects of the changes in fiscal and monetary policies on the economy. Macro-economic models are more uncertain, but they can be used to measure national economy-wide effects (indirect effects, ripple effects, and substitutive and displacement effects).

The various Directorates-General of the European Commission employ two models for this: the HERMIN<sup>13</sup> and QUEST models.<sup>14</sup> It must also be added, however, that these models do not measure, but merely model the effects of the policies. If possible, the attributes of the models are consistent with the experiential data, but there are several presumptive scenarios that need to be applied to the model. The presumptive scenarios are always subjective, build on practical professional experience, and work with a reasonable amount of abstraction; therein lies both their strength and their weakness.

The two models start out from a different presumption of the operation of economic forces, but their joint application – if they are pointing in the same direction – may improve the reliability of the results.

In the relevant literature according to the projections of almost all of the theoretical economic growth models (beginning with Solow's 1956<sup>15</sup> model until the current endogenous and semi-endogenous growth models) the less developed countries converge on the economic directions represented by the more developed countries as a result of the faster accumulation of physical capital, which is funded by the rapid, above-average levels of return. Realistic convergence, on the other hand, requires the elimination of limitations such as the level of development of the basic infrastructure or the pursuit of high-risk economic activities. Moreover, having regard to limited mobility, the principal of

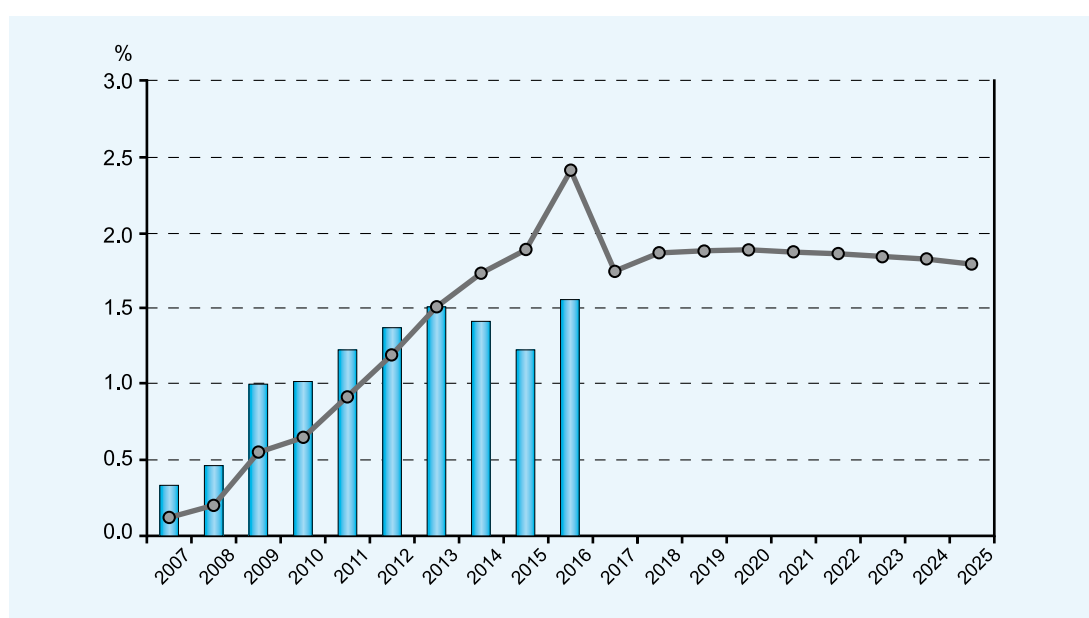
gradualism must apply to the adaptation (convergence). Therefore, the properly utilised funds advanced by the EU to its economically less developed regions, i.e. grants that serve to eliminate the boundaries mentioned, to support the necessary infrastructure and moreover to stimulate private investment could significantly speed up the convergence process. (See Chart 3)

The development of the basic infrastructure, however, is not one of the objectives of the EU 2020 Strategy.

The analogue convergence mechanism may affect the accumulation of human (labour force) capital.<sup>16</sup> Professional continuing training is a process that will only yield results measureable by the whole of the economy in the medium or long-term (it is also influenced by the multi-year schooling cycle, which takes the employee age restriction, the most important element of education, into account).

Chart 3

### COHESION SPENDING IN 'NEW' MEMBER STATES ON INFRASTRUCTURE AS A PERCENTAGE OF GDP AND ITS IMPACT ON GDP



Source: Varga, J. in 't Veld, J. (2011), „Cohesion Policy spending in the New Member States of the EU in an endogenous growth model", Eastern European Economics, 49(5), pp. 29–54

Looking at it from a multi-year perspective, higher education costs have more of an effect on the labour market situation of the individual rather than the aggregated macro-economic indices (GDP, unemployment rate). The distribution of the level and field of the education of the population plays a material role. It follows, therefore, that first of all the inclination to education decreases with the potential attainability of the next grade, and secondly that the potential long-term effect on increasing productivity levels is mostly related to technical/engineering and precision specialisations.

Considering the major impact the differences present in the human capital and labour capital portfolios have in terms of the level of development of the individual areas, the use of EU assets to develop labour capital could considerably speed up the convergence of these areas. Speeding up

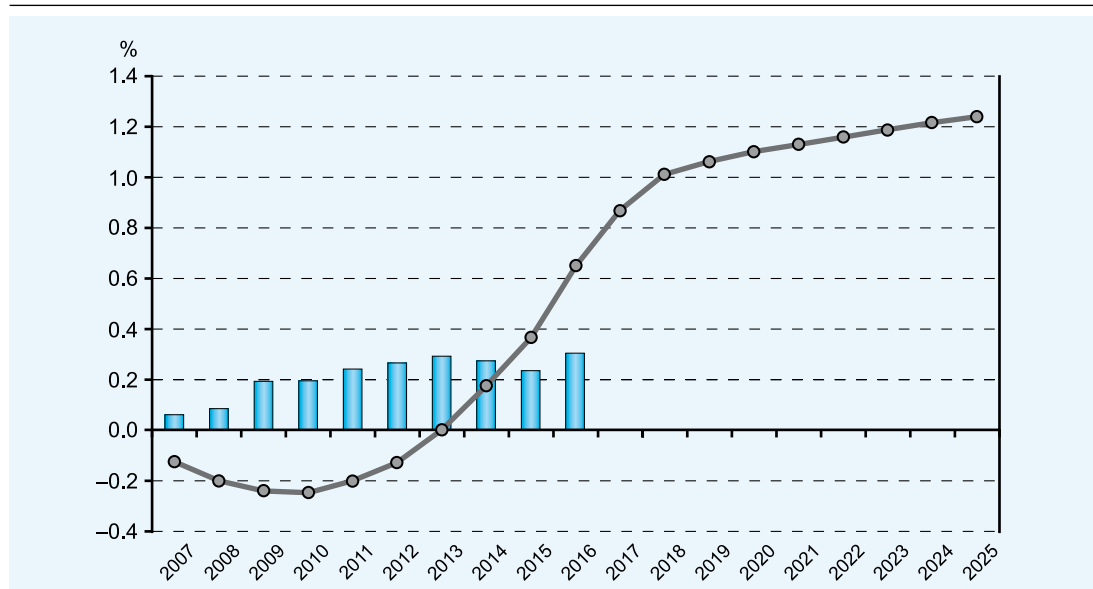
investments, however, requires the restriction of consumption in the short term and the modernisation of physical capital<sup>17</sup> may bring with it a loss of the up-to-dateness of a certain part of the labour force, which could result in decreasing real wages and a (potential) increase in unemployment. The purpose and task of cohesion policy is to help the poorer countries and regions of the EU weather the transitional period of modernisation.

The majority of the theoretical models – such as empirical findings – however, show a similarity between the accumulation of human resources and physical capital impacting convergence; the higher the level of development of a region, the more difficult and less efficient it is to further increase investment.<sup>18</sup>

In accordance with this, *Mohl and Hagen*<sup>19</sup> establish in their assessment of the previous 2000-2006 period that while the payments made within the framework of Objective 1 –

Chart 4

#### COHESION SPENDING IN 'NEW' MEMBER STATES ON HUMAN CAPITAL, AS A PERCENTAGE OF GDP AND ITS IMPACT ON GDP



Source: Varga, J., in 't Veld, J. (2011), „Cohesion Policy spending in the New Member States of the EU in an endogenous growth model”, *Eastern European Economics*, 49(5), pp. 29–54



i.e. in the less developed regions – supported regional economic growth, payments made within the framework of the other objectives (2 and 3) – i.e. in the developed regions and within the framework of regional cooperation – did not result in any measurable, positive economic impacts. At the same time, the authors also indicate that the impact on growth is not immediately apparent; rather there is a two to three year lag before it can be seen.

The findings of the “Fifth report on economic, social and regional cohesion” (p. 205) show that there is a palpable correlation between a higher rate of growth in the regions under Objective 1 compared to the non-Objective 1 regions of the 1995–2006 period. “A recent academic study of the dynamics of regional GDP growth in the EU15 (*see Chart 4*) found a sharp jump between those regions in receipt of Objective 1 funding over the period 1995–2006 and other regions. Comparing re-

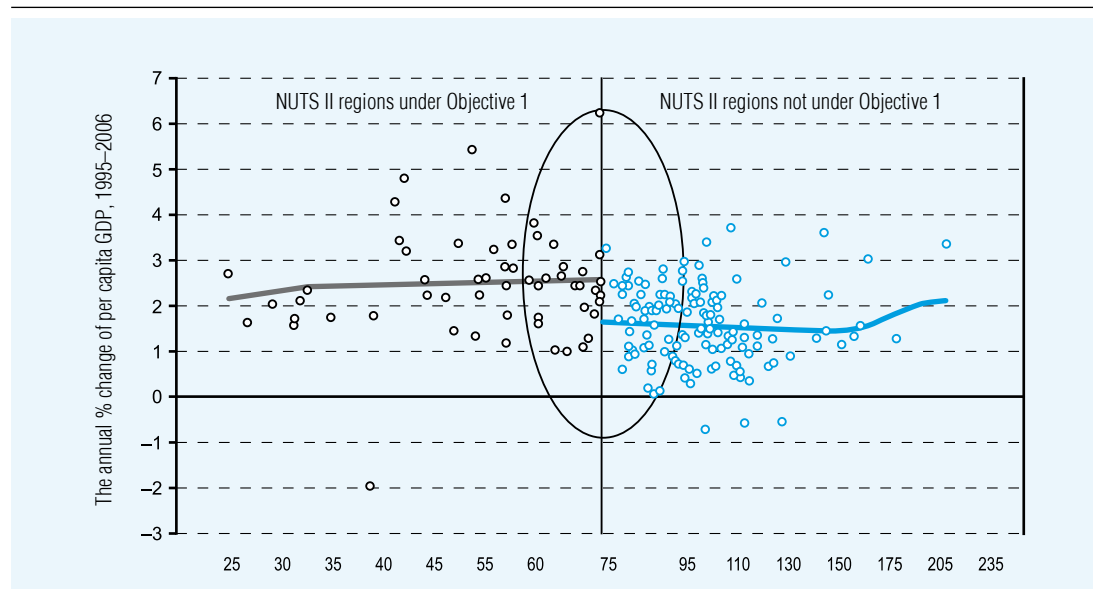
gions near the cut-off for eligibility for Objective 1 funding: GDP of Objective 1 regions grew at an average of 0.6–0.9 of a percentage point more than similar regions above the cut-off. This implies something like an extra 10% addition to GDP over the two programming periods concerned (1994–1999 and 2000–2006). The scale of this effect is much larger than the amount of funding involved (or the direct stimulus to demand from this) which suggests that it mostly reflects a strengthening of the supply-side of the economy in the regions concerned” (*see Chart 5*).

With regard to the 2014–2020 period, according to the Commission recommendation 36 per cent of the resources of the structural funds<sup>20</sup> will be allocated to the transitional and advanced regions (as opposed to the previous 25 per cent), and not the less developed regions under Objective 1.

A portion of the growth models endogenis-

Chart 5

**PER CAPITA GDP IN PURCHASING POWER STANDARDS (PPS),  
1988–1990 AVERAGE (EU-15=100), LOGARITHMIC SCALE**



Source: Busillo, Muccigrosso, Pellegrini, Tarola, Terrible (2010): Measuring the Effects of European Regional Policy on Growth: a Regression Discontinuity Approach

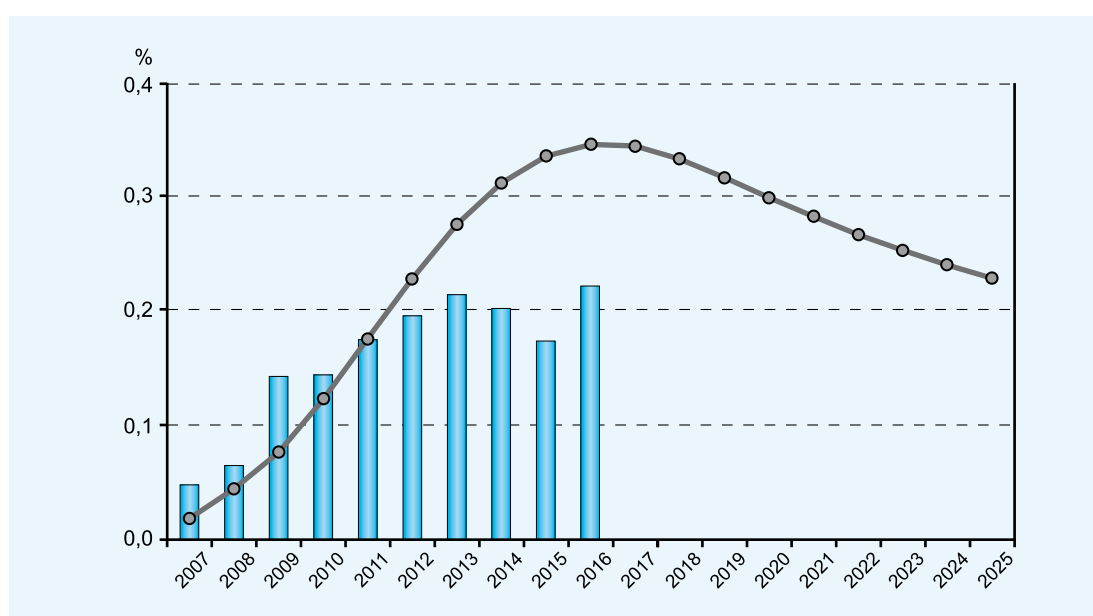
ing human capital<sup>21</sup> operate with the assumption that reaching a certain level of development in the educational system is a pre-requisite of the starting the convergence process, which, however, is unable to maintain this process in the long run. The technological dimension becomes key in the long term; complete convergence not only requires an equalisation of industrial disparities between the regions, but also makes it necessary to unify the applied technologies from a quality point of view.

Considering the prevalent concepts of growth theories, technological development is the ultimate source of long-term global economic growth on a global scale. Taking the increasingly faster convergence of the regions into account, the adaptation of the innovations used by the most developed states seems to hold more significance. In line with the theory on the technologi-

cal gap, the financial support of the adaptation process of new technologies represents, apart from a reduction in cost, a relative increase in the price of innovation research. A similar effect can be achieved by adjusting the labour factor and the latest technologies to one another, which, is de facto equivalent to human capital investments. At the same time, when it comes to private investments, the extent of the growth effect of the innovation activity on the local economy depends on the possibility of the developer to adapt to success. These possibilities may depend on the institutional/legal structure of the innovation process (for example through patents); therefore, the success of the intervention of the different countries might differ vastly. Moreover, because the boundary between actual innovation and the adaptation of results in the economy can be blurred, the actual impact of certain activities is difficult to prognosticate.

Chart 6

**COHESION SPENDING IN 'NEW' MEMBER STATES ON RESEARCH AND DEVELOPMENT, AS A PERCENTAGE OF GDP AND ITS IMPACT ON GDP**



Source: Varga, J., in 't Veld, J. (2011), "Cohesion Policy spending in the New Member States of the EU in an endogenous growth model", *Eastern European Economics*, 49(5), pp. 29–54

The theory of the technological divide suggests that if support is used for technological progress, then the real process of convergence of the poorer regions can be accelerated through the use of technologies developed elsewhere, because the adaptation or copying of foreign technology is cheaper than invention.<sup>22</sup> In addition, it is generally accepted that research and development as well as the use of high technologies in industry and services contribute to improving productivity. We can also observe the positive correlation between medium-term economic growth and R&D expenditures. (See Chart 6)

The new economic geography<sup>23</sup> theory argues that the scale of network effects and benefits increasing at the micro-economical level<sup>24</sup> could prove to be a factor limiting the structural support of private capital productivity and its positive impact. The structural assets will be allocated to areas characterised by relative poverty, a lack of large cities, an outdated economic sectoral structure or low general economic activity. Their inflow may delay the natural capital concentration processes in the centres with the greatest growth potential, at the same time possibly also making it more difficult to replace the existing economic structure with a more modern one, provided that these processes require a considerable agglomeration of economic activity. *Boldrin and Canova*<sup>25</sup> argue that the utilisation of cohesion policy funds had a positive impact on the economic performance and convergence process of the regions, while according to others<sup>26</sup>, the EU's regional policy has become more efficient in offsetting European productivity and income inequality; however, the unfavourable industrial structure and the absence of research and development hinders economic growth in poorer regions.

A similar conclusion is that Structural Funds function efficiently in states with appropriate institutional systems.<sup>27</sup> The efficiency of regional policy, however, largely depends

on the efficiency of controlling and managing organisations and the quality of operation of the administration system in general. Corruption and discrimination phenomena can significantly reduce efficiency. A recent study confirms that<sup>28</sup> the governance and administrative quality of countries and regions also impacts the efficient and effective utilisation capacity of cohesion funds. We can conclude that cohesion policy works best in an environment supportive of such policy.<sup>29</sup>

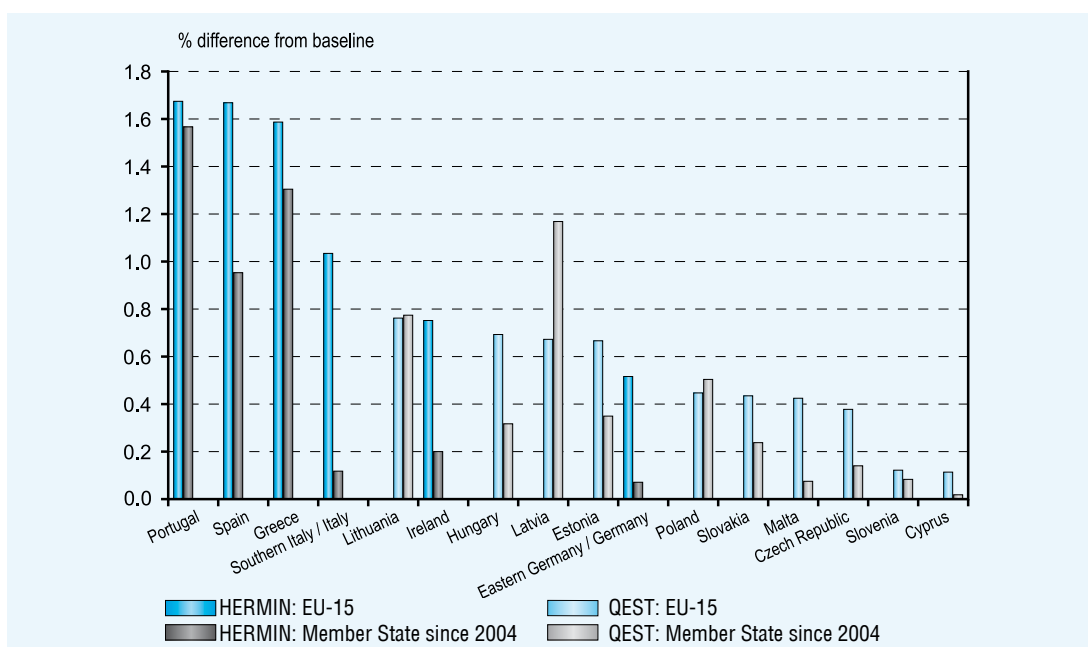
According to the analysis on the potential absorption problems related to the significant financial transfer need of cohesion funds,<sup>30</sup> due to a variety of reasons (wasting of transfers, costs of the higher administrative needs related to wanting to ensure the best utilisation, behaviours characterised by seeking out extra income, leading the funds towards consumption), the current extent of capital investments may be significantly lower than if the funds were utilised optimally. The study also concludes that in certain cases the transfer of funds may even be detrimental to economic growth and real convergence,<sup>31</sup> and the authors argue that an increase in the quantity of funds correlates with an increase in absorption problems.

Therefore, the empirical proofs of the existence of the real convergence phenomenon are not obvious,<sup>32</sup> but they suggest that there is a reduction in the time required to reduce the developmental disparities between certain countries located in relatively homogeneous areas or regions in individual Member States. The evaluation of macro-economic effect must start with cohesion policy expenditure and a distinction must be made between short and long-term effects.

Both models applied by the European Commission show the same result, i.e. that cohesion policy expenditures generate positive economic output effects; however, QUEST indicates a shorter-term effect than HERMIN. This can be explained in part by the fact that the

Chart 7

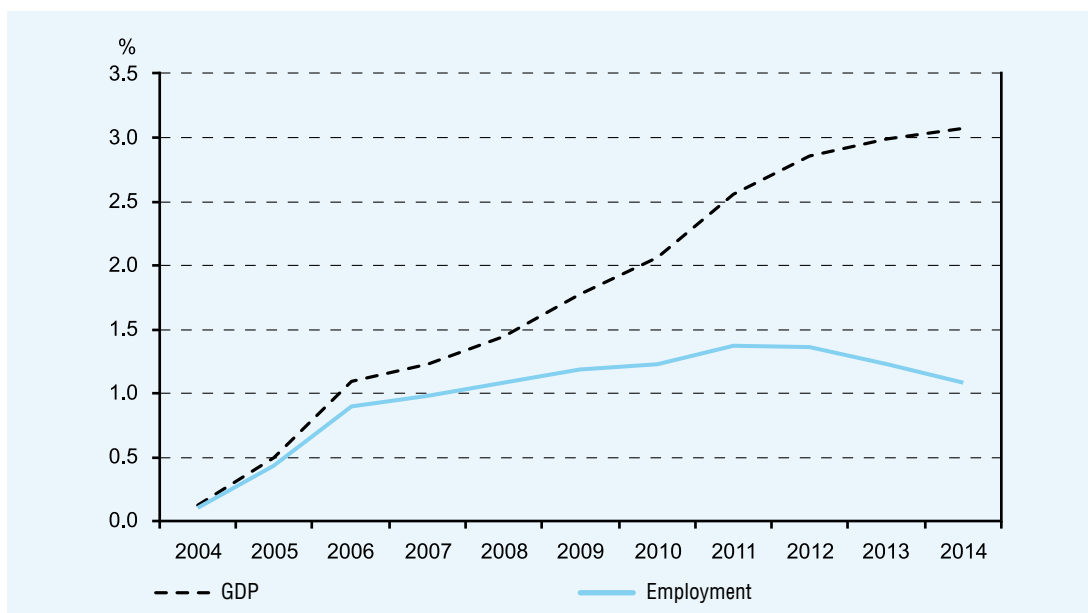
### THE ESTIMATED IMPACT OF COHESION POLICY ON GDP, AVERAGE 2000–2009



Note: DE-O=Eastern Germany; MZ=Mezzogiorno; HERMIN models the impact for DE-O and MZ while QUEST shows the impact for the whole of DE and IT  
Source: HERMIN, QUEST

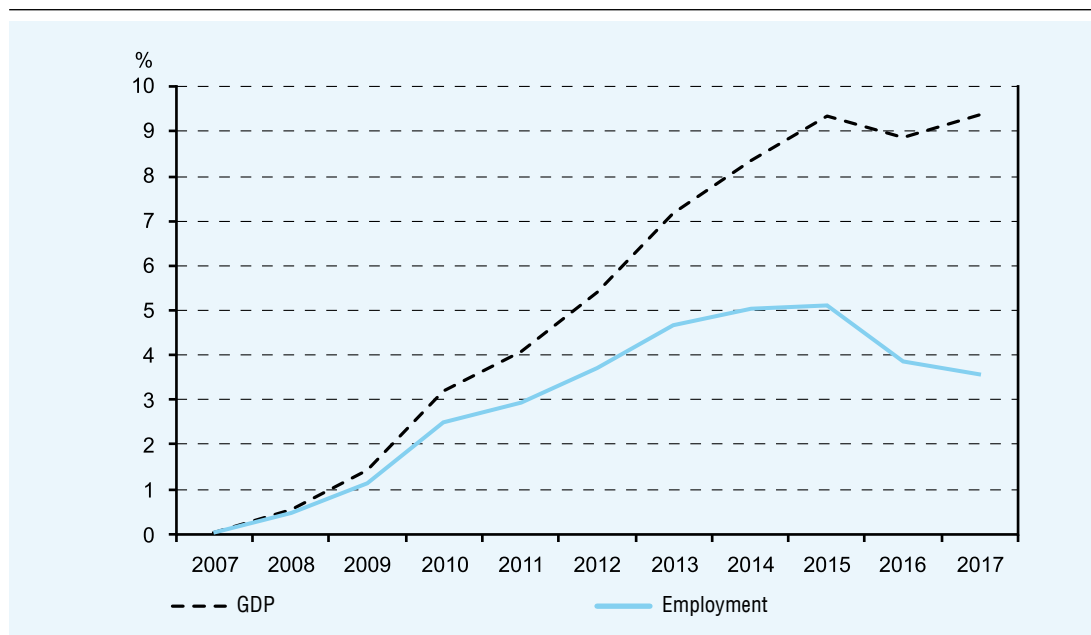
Chart 8

### THE ESTIMATED IMPACT OF THE NATIONAL DEVELOPMENT PLAN AND THE COHESION FUND (2004–2006): GDP AND EMPLOYMENT SURPLUS AS A RESULT OF FUNDING



Source: National Development Agency

# **THE ESTIMATED IMPACT OF THE NATIONAL STRATEGIC REFERENCE FRAMEWORK (2007–2013): GDP AND EMPLOYMENT SURPLUS AS A RESULT OF FUNDING**



Source: National Development Agency

research focus, model type and basic premises of the two models differ<sup>33</sup>. (See Chart 7)

Based on the joint impact survey conducted by the National Development Agency and the University of Pécs, community funds became practically the sole driving force of economic growth and job creation in Hungary during the general crisis. Using the model,<sup>35</sup> they examined what the impacts of fund utilisation were compared to a situation without EU development funds. The calculations showed a 5.5 per cent GDP surplus on a yearly average compared to the scenario without funding. (See Charts 8 and 9)

The simulation also shows that the simultaneous presence of recession, slow growth and funding does not necessarily indicate the inefficiency of funding. It is possible that without this funding, the given segment of the economy would be much worse off.

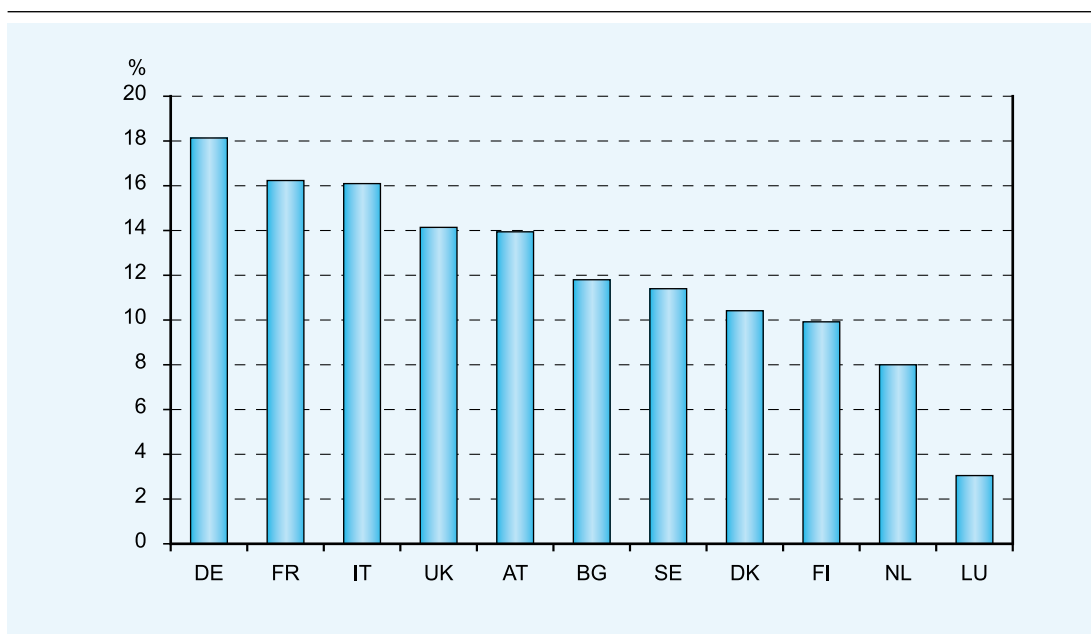
Cohesion policy, however, impacts all Member States, and as such all net contributors.

On the one hand, these Member States ensure the financing required for policy measures through their contributions – by levying higher taxes, and on the other hand – as the economy of the countries in question is more developed – they produce a number of capital goods and services, which they sell on the markets in developing and funded countries, markets that have increased thanks to cohesion policy funding. As a result, by raising financing, they are able to generate greater export and create markets for their own companies.<sup>36</sup>

This is also supported by the HERMIN model, which shows that the impact is significant with respect to increasing export, though this may vary from country to country depending on trade relations.<sup>37</sup> (See Chart 10)

This is the aspect examined by the study published by the Ministry for Development of Poland in December 2011<sup>38</sup>, which evaluates the positive impacts of cohesion policy on old, typically net contributor Member States.

### SHARE OF MAIN BENEFICIARY MEMBER STATES IN TOTAL EXPORTS OF NET DONOR COUNTRIES



Source: Eurostat, COMEXT database

According to the principal findings of this study, between 2004 and 2015, a total of EUR 140 billion of cohesion funds will flow to V4 countries, generating a profit of approximately EUR 75 billion for the EU-15; for every euro spent in one of the V4 countries, direct and indirect profit of 61 cents is generated in old Member States. The study considers EU-15 businesses participating in the utilisation of cohesion funds as subcontractors as direct profit. According to the study, this makes up 11 per cent of the EUR 75 billion profit. Of the old Member States, Germany makes the greatest direct profit from the cohesion projects of V4 countries (the subcontractors of German companies make a total profit of EUR 4.3 billion by taking part in cohesion projects implemented within the territories of V4 countries). Spanish firms also profit significantly (close to EUR 1.5 billion, primarily through construction companies), as well as Austrian and French companies (around EUR 800 million for each of the two countries).

According to the study, the fact that EU-15 countries are able to export more to these countries due to increasing standards of living and import demand is indirect gain. Germany is the country that is able to increase its exports into V4 countries the most as an indirect result of cohesion policy (by close to EUR 32 billion between 2004 and 2015). Also producing a significant export increase is Italy (export directed to the region will increase by approximately EUR 7 billion), as well as the Netherlands and France (both countries will be able to export close to EUR 6 billion more). Great Britain will be able to increase its exports by EUR 5 billion.

The analysis concludes that – with respect to the V4 – when comparing the rate of gains due to increased export with the contribution to cohesion policy financing by old Member States, gains in Ireland, Luxembourg and Germany far exceed contributions.

The net impact of cohesion policy on the EU economy was estimated with the QUEST

Table 2

**CUMULATIVE NET EFFECT OF COHESION POLICY ON GDP – LONG TERM GAINS IN QUEST**

	2000–2009	2000–2015	2000–2020
EU-15	0.5	1.9	3.3
EU-10	3.7	10.2	15.9
EU-25	0.7	2.4	4.0

*Note:* Cumulated % change in the level of GDP as compared to a non Cohesion Policy baseline

*Source:* Varga, J., in 't Veld, J., A model-based analysis of the impact of Cohesion Policy expenditure 2000–2006: Simulation with the QUEST III endogenous R&D model, European Commission, Directorate General for Economic and Financial Affairs, 2010

model. The cumulative net effect of the expenditures of 2000–2006 programmes on EU25 GDP was estimated at 0.7 per cent in 2009 (i.e. the GDP was this much higher as a result of the policy). According to estimates, this will climb to 4 per cent by 2020. The cumulative net effect on GDP in the EU-15 in itself is estimated to be at slightly more than 3 per cent by 2020. (*See Table 2*).

Though cohesion policy is not an anti-cyclic economic policy, the results still show that it does stimulate real economy investments. Since both national and regional economies were rocked by the crisis, cohesion policy could play a crucial role in the European Economic Recovery Plan,<sup>39</sup> as well as those extraordinary measures required – for a limited time – in order to help Member States alleviate the impacts of the crisis. With respect to the substantiation of the suitability of cohesion policy, the selection of economic policy tools and the effectiveness and efficiency of these tools – besides existing development-related disproportions – are fundamental factors.

## CONCLUSION

Cohesion policy is one of the most frequently evaluated community policies in Europe. With several programming periods behind them, the Commission has introduced

increasingly sophisticated, strict and systemic approaches to evaluate and assess policy and programmes.<sup>40</sup> There are several observable benefits to this process: the strengthening of the learning process; the identification of cohesion policy elements that represent added value; furthermore, the feedback of information regarding values and results into the shaping of the policy system leads to a strengthening of the impacts of quality, relevance and programming. Transparent, regular and up-to-date information provision on programme implementation also ensures the accountability and legitimacy of EU funds. In truth, the evaluation is what most strengthens the relationship of cohesion policy and national aid policy, which relationship reinforces both policies and is constantly improving. Still, even with all the aforementioned positive effects, the realisation of the mission of evaluation studies to clearly show the impacts of the utilisation of development funds remains to be doubtful. Even with the constant development of evaluation activity, the information on programme impacts is still limited, which makes assessing interventions and drawing conclusions quite difficult. The setting of regulations is also influenced by political considerations, which do not necessarily point towards effectiveness; furthermore, the point of comparison is also unclear when talking about effectiveness.

According to analyses and evaluations, within the system of these conditions, the impact of cohesion policy on the economic convergence process is analogous to the impact of public investments on private investments. The efficient channels of the medium and long-term impacts of EU cohesion policy are the following:

- the funding of broadly interpreted public infrastructural investments;
- the funding of private investments aimed at increasing the forms of modern physical capital accumulation;
- the funding of human capital investments, i.e. increasing labour productivity;
- the long-term funding of scientific research (as a result of implementing available innovations), in the interest of increasing the productivity of all production factors.

Economic theory refers to a number of interventions with potentially positive impacts, the sources of which are the Structural Funds aimed at a supported economy. It is essential that the tools of funding be directed at stimulating the economy and increasing productivity, such as for example improving the quality of human resources – particularly in exact and technical areas, i.e. the field of research and development. The geographical concentration of assistance is important depending on the objectives set. The conclusions drawn from the empirical analyses show that the greatest impact on the pace of convergence between EU regions is made – besides the funding provided to economic regions by cohesion policy – by road investment projects and investments into human resources.<sup>41</sup>

In light of the above, it would be expedient to consider whether the thematic concentration objectives and eligibility provisions determining fund utilisation opportunities as stipulated in the cohesion statutory proposals of the European Commission for the 2014–

2020 fiscal period are truly in line with the efficient development intervention areas highlighted by evaluations, and whether the 2020 objectives are in all cases consistent with the development goals resulting in efficient and effective development corresponding to the specific and individual needs of given regions. Within the consultation process of draft bills, there is a necessity and opportunity to make adjustments.

Cohesion policy also realises objectives related to the labour market. In certain sectors, the incentives aimed at increasing the employment rate of the population and the creation of conditions that serve to transform sectoral employment structure could beneficially influence – in terms of per capita GDP – the increase of the pace of convergence as well as the increase of the pace of economic development for the whole region. Besides the impact on the pace of convergence, however, the economic lag of selected regions could also lead to the most mobile labour force (typically the highest level human resources) leaving the region in the interest of improving its standard of living. At the comprehensive level of the economy, this process could prove to be very useful as it allows for the efficient relocation of labour force. It could, however, also lead to the depopulation of poorer regions, which in turn could result in the further falling behind of those still living there, pushing them out to the fringes of society.

It is a basic premise of effectively and efficiently functioning cohesion policy that targeted and complementary measure packages be implemented at all policy levels. Research until now has pointed out that the traditional sectoral approach handling of socio-economic problems leads to the fragmentation of policies and reduces efficiency. Integrated interventions must be determined by tailoring them to the specific conditions of the given



regions, as cohesion policy functions with significantly lower effectiveness if individual territorial conditions are not taken into account when implementing developments,<sup>42</sup>

All in all, the sustainability of the impacts of cohesion policy can be ensured only if development interventions are implemented with a comprehensive strategic approach.<sup>43</sup>

One of the most important observations of the development policy evaluation is that the effectiveness and efficiency of cohesion policy is fundamentally influenced by its

relation with other national and European relevant policies. Policy coordination and the structural reforms to be implemented in the main strategic intervention areas of the public sector must jointly determine the success of cohesion policy.

It seems clear that effective response to the various challenges must be systemic in nature. It is a basic issue of the thinking related to the coming period how the limited resources available could be used most efficiently and in a sustainable manner.

## NOTES

<sup>1</sup> The performance of state tasks is based on the theory of public goods, according to which, for some reason the production of certain 'products' would be lower through only the private sector than with state intervention (for instance, due to asymmetric information).

<sup>2</sup> The Nomenclature of Territorial Units for Statistics is the European Union's geographical nomenclature subdividing the territory of the European Union. The system was created in 1988 to identify the administrative units of the countries, which made it possible to analyse and support territories at different levels of development at the regional level. Due to an increase in the number of elements in the system and the modifications of the boundaries giving way to the possibility of fraud, Regulation (EC) No 1059/2003 unified the various levels, defining administrative limits to the population numbers of a given administrative level, and at the same time defining a detailed rules of procedure on the definition of the classification and the eventual amendment thereof.

<sup>3</sup> Support intensity is an index number of the upper limit of the support, which is the ratio of the support content and the current value of eligible costs of the project.

<sup>4</sup> Yuill, D., Ferry, M. and Vironen, H. (2008), *New Policy Frameworks, New Policy Approaches: Recent Regional Policy Developments in the EU and Norway*, EoRPA Paper 08/1, University of Strathclyde.

<sup>5</sup> The 12 member states that acceded in 2004 and 2007, plus Greece, Spain, and Portugal

<sup>6</sup> Source: European Commission

<sup>7</sup> In terms of the measurement of the progress made in the fulfillment of the objectives of the Europe 2020 Strategy five key objectives (employment, R&D/innovation, climate change/energy, education, poverty/social exclusion) have been set for the whole of the EU; the development of basic infrastructure was not set as an objective.

<sup>8</sup> The European Commission uses two macro models (HERMIN and QUEST) and one model for transport investments (TRANSTOOLS).

<sup>9</sup> Such a model was developed and applied by six Member States: Austria, Denmark, the United Kingdom, Poland, Germany and Italy

<sup>10</sup> One hundred and five detailed case studies dealt with the subsequent evaluation of the evaluation of

the 2000–2006 operation of the ERDF, examining 29,500 follow-up indices from 382 programmes. Forty-nine case studies have been prepared to subsequently evaluate the ESF, examining over 2,000 measures taken within the framework of 238 programmes.

<sup>11</sup> It is more “credible”, but can usually only be used to measure direct impacts.

<sup>12</sup> Researchers have used different models to study the effects of cohesion policy: Macro and econometric models (HERMIN model – ESRI 2002), the traditional macro CGE-model (ECOMOD model – Bayar 2007), or the DSGE approach (QUEST III – Ratto, Roeger and In't Veld 2009). In terms of its features, the model used by the National Development Agency (GMR-Europe model system – Varga, Járosi and Sebestyén, 2009; Varga, Pontikakis and Chorafakis 2010; Törmä and Varga, 2010) is closer to the HERMIN model, with the difference that the former takes also the dynamics of regional processes into account.

<sup>13</sup> Follow the link below for a description of the macro-economic model with neo-classical attributes on the supply side: [http://ec.europa.eu/regional\\_policy/sources/docgener/evaluation/pdf/expost2006/wp3\\_hermin\\_aggregate.pdf](http://ec.europa.eu/regional_policy/sources/docgener/evaluation/pdf/expost2006/wp3_hermin_aggregate.pdf)

<sup>14</sup> Follow the link below for a description of the new Keynesian micro dynamic general equilibrium model with endogenous growth: [http://ec.europa.eu/economy\\_finance/publications/economic\\_paper/2010/index\\_en.htm](http://ec.europa.eu/economy_finance/publications/economic_paper/2010/index_en.htm)

<sup>15</sup> Solow, R. M. (1956) A Contribution to the Theory of Economic Growth *Quarterly Journal of Economics*, 70, 1: 75–114

<sup>16</sup> Mankiw, G. – Romer, D. – Weil, D. N. (1992): A Contribution to the Empirics of Economic Growth. *Quarterly Journal of Economics*, 107, 2: 407–437

<sup>17</sup> Greenwood, J. – Hercowitz, Z. – Krusell, P. (June 1997), „Long-Run Implications of Investment-Specific Technological Change,” *American Economic Review* v. 87, n. 3: 342–362

<sup>18</sup> Bils, M. – Klenow, P. J. (2000): Does Schooling Cause Growth? *American Economic Review*. 90: 1160–83

<sup>19</sup> Mohl, P. – Hagen, T. (2010): Do EU structural funds promote regional growth? New evidence from various panel data approaches, *Regional Science and Urban Economics* 40.:353–365.

<sup>20</sup> Excluding the Cohesion Fund and the European Territorial Co-operation

<sup>21</sup> Benhabib, Jess – Spiegel, Mark M., 2005. „Human Capital and Technology Diffusion”, „Handbook of Economic Growth” In: Philippe Aghion & Steven Durlauf (ed.), *Handbook of Economic Growth*, edition 1, volume 1, chapter 13, pp. 935–966

<sup>22</sup> Cappelen, A., Fagerberg, J. and Verspagen, B. (1999): Lack of Regional Convergence. In Fagerberg, J., Guerrieri, P. and Verspagen, B. (eds) *The Economic Challenge for Europe. Adapting to Innovation Based Growth* (Aldershot: Edward Elgar).

<sup>23</sup> Fujita, M. – Thisse, J. (2002): *Economics of Agglomeration. Cities, Industrial Location, and Regional Growth*. Cambridge University Press Cambridge

<sup>24</sup> According to new economic geography, network effects and agglomeration benefits play an important role; if a given company settles in a given location, it is more beneficial for the next company to begin business activities next to it and not in a green-field location. This correlation works better and better in the case of each new subject, until rising wages and other costs do not exceed the benefits arising from clusterisation.

- <sup>25</sup> Boldrin, M. and Canova, F. (2001): Inequality and convergence: reconsidering European regional policies, *Economic Policy* 16(32): 205–53
- <sup>26</sup> Cappelen A., Castellacci F., Fagerberg J. and Verspagen B. (2003): The impact of EU regional support on growth and convergence in the European Union, *Journal of Common Market Studies* 41(4): 621–644
- <sup>27</sup> Ederveen, S., H. Groot and R. Nahujs (2006): Fertile soil for structural funds? a panel data analysis, *Kyklos* 59(1):17–42
- <sup>28</sup> Nicholas Charron, Victor Lapuente and Lewis Dijkstra (2012): Regional Governance Matters: A Study on Regional Variation in Quality of Government within the EU, Working Paper 01/2012
- <sup>29</sup> Burnside C. and Dollar D.(2000): Aid, Policies and Growth, *American Economic Review* 90(4) 847–68
- <sup>30</sup> Herve, Y. and Holzman, R. (1998): Fiscal transfers and economic convergence in the EU: an analysis of absorption problems and an evaluation of the literature, Nomos Verlagsgesellschaft
- <sup>31</sup> See also: Váradí, B. (2006): Miért folyik a csata? Avagy a 8000 milliárd átka (What are they fighting about? Or the curse of the 8000 billion)., *Élet és Irodalom*. 2006/44
- <sup>32</sup> Quah, D. T. (1996): Twin Peaks: Growth and Convergence in Models of Distribution Dynamics. CENTRE FOR ECONOMIC PERFORMANCE DISCUSSION PAPER NO. 280 // Barro, R. J. – Sala-i-Martin, X. (2003): *Economic Growth*, 2nd Edition
- <sup>33</sup> For instance, HERMIN does not take the financing costs of cohesion expenditures into account. In QUEST, EU-15 Member States also share in the financing costs of cohesion expenditures, and as a result the net cohesion revenues of these countries are lower than the gross revenues shown above and simulated in HERMIN. Similarly, the stimulation of demand is probably lower in QUEST than in HERMIN, as cohesion expenditures lead to the appreciation of the real value of exchange rates (in countries which are not part of the euro area) and to the crowding out of certain private expenditures, as a result of which, the impact on result is lower.
- <sup>34</sup> In order to receive a significant amount of financing resources available from cohesion funds, it is necessary to become a Member State, and this means various dates for the various Member States. With respect to the analysis of impacts, the fact that cohesion programmes are implemented with overlaps in time, complicating the linking of impact to the implementation period, is also significant.
- <sup>35</sup> For a detailed description of the model see: <http://www.nfu.hu/modellezes>
- <sup>36</sup> The impact of cohesion policy on net donor countries may also take on different forms (for instance, they can provide procurement contracts for donor country enterprises).
- <sup>37</sup> Study for the European Parliament, Directorate General for Internal Policies, Policy Department B Structural And Cohesion Policies, Regional Development, The economic return of cohesion expenditure for the Member States, 2009
- <sup>38</sup> Evaluation of benefits to the EU-15 countries resulting from the implementation of the Cohesion Policy in the Visegrad Group countries, IBS, Warsaw, December 2011
- <sup>39</sup> Communication From The Commission – A European Economic Recovery Plan; COM(2008) 800, 11.26.2008
- <sup>40</sup> Polvierari L., Mendez C., Gross F., Bachter J. (2007): Making sense of European Cohesion Policy: 2007-13 Ongoing Evaluation and Monitor-

ing Arrangement, IQ-Net Thematic Paper, 21(2) EPRC

<sup>41</sup> “Reaction of the Polish economy to structural funds in the 2007–2013 period – Conclusions for Poland”, Instytut Badań Strukturalnych, 2007

<sup>42</sup> Nyikos Györgyi (2011): How to deliver an integrated territorial approach to increase the effectiveness of

public interventions, Panel Debate at High-level Conference “Integrated Approach to Development – a Key to Smart, Sustainable and Inclusive Europe” 24. November 2011. Poznan

<sup>43</sup> Nyikos Györgyi (2011): Development Policy and Sustainability 2011 Association for Budgeting & Financial Management CONFERENCE October 13–15 Washington D.C.

## LITERATURE

BENHABIB, J. – SPIEGEL, M. M. (2005): Human Capital and Technology Diffusion, Handbook of Economic Growth. In: Philippe Aghion & Steven Durlauf (ed.), Handbook of Economic Growth, edition 1, volume 1, chapter 13, pp. 935–966

BILS, M. – KLENOW, P. J. (2000): Does Schooling Cause Growth? *American Economic Review*. 90: pp. 1160–1183

BOLDWIN, M. – CANOVA, F. (2001): Inequality and convergence: reconsidering European regional policies, *Economic Policy* 16(32): pp. 205–253

BURNSIDE, C. – DAVID, D. (2000): Aid, Policies and Growth, *American Economic Review* 90(4) pp. 847–868

BUSILLO, MUCCIGROSSO, PELLEGRINI, TAROLA, TERRIBLE (2010): Measuring the Effects of European Regional Policy on Growth: a Regression Discontinuity Approach

CAPPELEN, A. – FAGERBERG, J. – VERSPAGEN, B. (1999): Lack of Regional Convergence. In: Fagerberg, J., Guerrieri, P. and Verspagen, B. (eds) The Economic Challenge for Europe. Adapting to Innovation Based Growth (Aldershot: Edward Elgar).

CAPPELEN A. – CASTELLACCI F. – FAGERBERG J. – VERSPAGEN B. (2003): The impact of EU regional support on growth and convergence in the European

Union, *Journal of Common Market Studies* 41(4): pp. 621–644

CHARRON, N. – LAPUENTE, V. – DIJKSTRA, L. (2012): Regional Governance Matters: A Study on Regional Variation in Quality of Government within the EU, *Working Paper* 01/2012

EDERVEEN, S. – GROOT, H. – NAHUIS, R. (2006): *Fertile soil for structural funds? A panel data analysis*, *Kyklos* 59(1):pp. 17–42

FUJITA, M. – THISSE, J. (2002): Economics of Agglomeration. Cities, Industrial Location, and Regional Growth. *Cambridge University Press*, Cambridge

GREENWOOD, J. – HERCOWITZ, Z. – KRUSELL, P. (1997): Long-Run Implications of Investment-Specific Technological Change, *American Economic Review* v. 87, n. 3: pp. 342–362

HERVE, Y. and HOLZMAN, R. (1998): Fiscal transfers and economic convergence in the EU: an analysis of absorption problems and an evaluation of the literature, Nomos Verlagsgesellschaft

MANKIW, G. – ROMER, D. – WEIL, D. N. (1992): A Contribution to the Empirics of Economic Growth. *Quarterly Journal of Economics*, 107, 2: pp. 407–437

MICHAEL SPENCE (1973). Job Market Signaling. *The Quarterly Journal of Economics*, 87, 3: pp. 355–374

MOHL, P. – HAGEN, T. (2010): Do EU structural funds promote regional growth? New evidence from various panel data approaches, *Regional Science and Urban Economics* 40. pp. 353–365

NYIKOS, GY. (2011): Aktualitások a fejlesztéspolitika területéről. Kondicionalitás és eredményorientáltság, illetve kohéziós politika versus területfejlesztés (Topical issues from the field of development policy. Conditionality and result-orientedness; cohesion policy versus regional development) *Térületi Statisztika* 14., Volume (51.), issue 1, pp. 38–51

NYIKOS, GY. (2011): Development policy and sustainability 2011 Association for Budgeting & Financial Management Conference, October 13–15, Washington D.C.

NYIKOS, GY (2011): How to deliver an integrated territorial approach to increase the effectiveness of public interventions. Panel Debate at High-level Conference Integrated Approach to Development – a Key to Smart, Sustainable and Inclusive Europe. 24. November 2011, Poznan

POLVIERARI, L. – MENDEZ, C. – GROSS, F. – BACHTER, J. (2007): Making sense of European Cohesion Policy: 2007–2013 Ongoing Evaluation and Monitoring Arrangement, *IQ-Net Thematic Paper*, 21(2) EPRC

TÁTRAI, T. (2010): Közbizottság jogi és hatékonysági aspektusai (The legal and efficiency aspects of public procurement). *Vezetéstudomány* 7–8, pp. 68–76

QUAH, D. T. (1996): Twin Peaks: Growth and Convergence in Models of Distribution Dynamics. CENTRE FOR ECONOMIC PERFORMANCE DISCUSSION PAPER NO. 280 // Barro, R. J. – Sala-i-Martin, X. (2003): *Economic Growth*, 2nd Edition

SOLOW, R. M. (1956): A Contribution to the Theory of Economic Growth *Quarterly Journal of Economics*, 70, 1: pp. 75–114

YUILL, D. – FERRY, M. – VIRONEN, H. (2008), New Policy Frameworks, New Policy Approaches: Recent Regional Policy Developments in the EU and Norway, *EoRPA Paper* 08/1, University of Strathclyde

VÁRADI, B. (2006): Miért folyik a csata? Avagy a 8000 milliárd átka (What are they fighting about? Or the curse of the 8000 billion). *Élet és Irodalom*. 2006/44

VARGA, J., in 't VELD, J., A model-based analysis of the impact of Cohesion Policy expenditure 2000–2006: Simulation with the QUEST III endogenous R&D model, European Commission, Directorate General for Economic and Financial Affairs, 2010

Evaluation of benefits to the EU-15 countries resulting from the implementation of the Cohesion Policy in the Visegrad Group countries, IBS, Warsaw, December 2011

“Reaction of the Polish economy to structural funds in the 2007–2013 period – Conclusions for Poland”, Instytut Badań Strukturalnych, 2007

Communication From The Commission – A European Economic Recovery Plan; COM(2008) 800, 26.11.2008

The Commission's Report – Fifth Report on Economic, Social and Territorial Cohesion. 2010 (p. 205)

Study for the European Parliament, Directorate General For Internal Policies, Policy Department B: Structural And Cohesion Policies, Regional Development, The economic return of cohesion expenditure for the Member States, 2009