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The Role of International Transfers in Public Investment in CESEE:

The European Commission's experience with Structural Funds

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> Abstract

In the context of the financial and economic crisis, which led to a dramatic deterioration of public finance, the EU budget and in turn cohesion policy have moved to the forefront of a wide-ranging debate on the management of public expenditure. Even more than before, it is necessary to ensure that public money is wisely spent and delivers the expected results.

This paper intends to feed this debate by focusing on cohesion policy interventions in the Central, Eastern and Southern European Economies (CESEE). It first highlights how difficult it is to measure the impact of a policy such as cohesion policy by reviewing the most important results on the macroeconomic impact of the policy. The paper then presents some of the main elements included in the proposals for reforming cohesion policy.

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1 Introduction

Since its inception the financial resources allocated to the EU Cohesion Policy have steadily increased. From 16% in 1988, its share in the Community budget increased to about one third for the current Multiannual Financial Framework, corresponding to 0.38% of the total GDP of the EU. It is now the second policy in importance after the Common Agricultural Policy.

The role of cohesion policy has even been enhanced with the outburst of the financial and economic crisis. Soon after the outbreak of the financial turmoil, the Commission launched the European Economic Recovery Plan aimed at driving Europe's recovery from the crisis. Within the Recovery Plan, the Structural and Cohesion Funds were mobilised and up to EUR 6.3 billion of payments were brought forward in 2009. The idea was not to increase social and cohesion funding per se, but help to accelerate programme implementation. More money was made available at a time when the need was the greatest because of the downturn.

The financial contribution of cohesion policy to the Recovery Plan was substantial, corresponding to 3% of the total and to more than 40% of the Community's contribution. But more than that, cohesion policy was supposed to play a very specific role. Indeed, it mainly supports public investments that are intended to improve the structure of our economies and foster their endogenous development capacities.

By mobilising cohesion policy, the Recovery Plan responds to the danger that, with national budgets currently under severe pressure, Member States and regions may delay planned investments. With more Community funding available up front in the form of additional advances, they can more easily pre-finance projects or even pre-finance their national contributions, thus allowing planned investments to go ahead in areas such as infrastructure, education, innovation or energy efficiency, which are key for maintaining development opportunities in the future.

All over Europe, governments are struggling to maintain acceptable levels of public spending and some heavily rely on the EU budget to do so. For some Member States, the financial resources channelled by Structural and Cohesion Funds in their economies represent more 4% of their GDP, up to 8.5% of national public expenditure.

On the other hand, the current economic situation and the general deterioration of public finance have put the EU budget under strong pressure. The UK asked that several of the largest nations in the alliance support a real-term freeze of the budget and has received support from France and Germany. This means that the EU budget would rise by no more than the rate of inflation.

However, knowing that cohesion policy mostly finances public investments that are necessary for securing future growth and fiscal consolidation, and the fact that without it, a number of Member States will simply not be capable of fully playing their role in reaching the objectives of the Europe 2020 strategy, voices also plead for maintaining a strong cohesion policy to give it the financial means it needs to fulfil its tasks.

It is therefore not surprising that, more than ever, cohesion policy and its effectiveness are discussed, either in academic debates or within policy makers circles. In particular, the question of whether it played (or is expected to play) a significant role in the development of Central, Eastern and Southern European Economies (CESEE), its main beneficiaries, is therefore highly relevant.

However, providing a convincing answer is far from trivial. This paper will first review and discuss the main methods that are used for estimating the macro-economic impact of cohesion policy. It will then focus on the results recently obtained with economic models. Finally, it will present some reflections on how improve the effectiveness of the policy.

2 Measuring the impact of cohesion policy

Cohesion policy aims at fostering the economic and social development of the EU and its regions. It affects a wide range of macroeconomic variables, such as GDP, employment, productivity, but also consumption, investment, the fiscal balance or trade balance. Some of its impacts are direct (e.g. increasing demand for training services), others are indirect (e.g. raising training leads to higher labour productivity and hence increases competitiveness). Some are short-term, while others only materialise in the long-term. Finally, economic performance is also affected by a wide range of internal policy actions and external developments in the economy.

The complexity of its effects and of the context in which cohesion policy is applied explains why it is much easier to evaluate the output or the outcome of the policy than its macro economic impact. For instance, for the programming period 2000-2006, cohesion policy funded 4 700 km of motorways and 1 200 km of high-speed rail, implying that 77% of motorways in the Cohesion Countries and some 56% of high-speed rail were co-financed by cohesion policy. As a result, average motorway density in Spain, Greece, Ireland and Portugal went from 90% of the EU-15 average in 2000 to 111% in 2006. Around 230 000 small and medium-sized enterprises (SMEs) received financial support (mainly grants but also loans and venture capital) and a further 1.1 million received advice and support for networking, leading to an estimated one million jobs created at the EU level (European Commission, 2010).

However, estimating the impact of these interventions on variables such as GDP growth or the level of regional disparities among EU regions is more complicated. Three main approaches have been adopted in the literature to do so: convergence analysis, econometrics and macroeconomic models.

2.1 Convergence analysis

The objective of European cohesion policy is defined in Articles 2 and 4, and Title XVII of the Treaty establishing the European Community. According to Article 2, cohesion should contribute to 'promote economic and social progress as well as a high level of employment, and to achieve balanced and sustainable development'. Article 175 adds 'in particular, the Community aims to reduce the disparities between the levels of development of the different regions and the backwardness of the least favoured regions or islands, including rural areas'.

Since the inception of the policy, this objective has often been translated as the promotion of convergence between EU regions and, in spite of the fact that cohesion policy aims at more than purely economic convergence, the reduction of regional disparities in the level of development has usually been measured in terms of GDP per head (relative to the EU average).

This type of convergence has even become a major aspect in assessing the effectiveness of European cohesion policy. Many contributions have inferred conclusions concerning the extent to which the cohesion policy delivers results from the examination of the convergence process among EU regions, some with positive and others with negative findings.

Regional disparities in the levels of GDP per head have indeed substantially declined, although not at the same pace among different groups of regions. Convergence between regions of the Western Member States was strong up to the mid 1990s, but the process since then has lost momentum. From 1980 to 1996, the evolution of disparities among Western Member States' regions indeed shows a clear downward trend, the coefficient of variation decreasing from 33 to 29. On the contrary, since 1996 it remained quite stable. The results are in line with the findings regularly reported in the literature (see for instance Neven and Gouyette 1995, Magrini 2004, or Ertur et al. 2006).

Figure 1: Coefficient of variation, GDP per head, Western Member States and EU-27 NUTS 2 regions, 1995-2009



Source: Cambridge Econometrics and EUROSTAT database. DG Regional Policy's own calculation.

Table 1: GDP/head (EU-27=100): Transition probability matrix, EU-27 NUTS 2 regions, 1995-2009 ⁽¹⁾**Transition probability matrix**

	GDP/head	Percentage of regions	2009				
			0-50	50-75	75-100	100-150	150-
1995	0-50	14%	53.8%	43.6%	0.0%	2.6%	0.0%
	50-75	13%	2.9%	67.6%	23.5%	5.9%	0.0%
	75-100	23%	0.0%	4.8%	83.9%	11.3%	0.0%
	100-150	43%	0.0%	0.0%	27.0%	70.4%	2.6%
	150-	7%	0.0%	0.0%	0.0%	42.1%	57.9%

Distribution

	0-50	50-75	75-100	100-150	150-
1995	14%	13%	23%	43%	7%
2009	8%	16%	34%	37%	5%
Long run	1%	10%	60%	27%	2%

Source: EUROSTAT database. DG Regional Policy's own calculation.

This is the type of observation that led Boldrin and Canova (2001) to conclude that cohesion policy is ineffective.

On the other hand, disparities continue to decrease rapidly among EU-27 regions, the coefficient of variation falling from 42.7 in 1996 to 39.1 in 2007. This implies that if convergence is still at work within the EU-27, it is due to the fact that the poorest regions in the new Member States are catching-up with the Union's richest ones, while among Western Member States' regions convergence is no longer taking place.

The fact that regional disparities decline when considering the EU as a whole does not prevent disparities to increase within a number of Member States, in particular those who recently joined the Union. For instance, in Romania the coefficient of variation rose from 15 in 1995 to 44 in 2007. To a large extent, such evolution reflects that in each country the process of growth features important local differences, being very strong in a limited number of regions that generally includes the capital city region.

However, the fact that growth is very strong in some regions does not prevent the others from continuing to catch-up on EU-27 levels. In fact, from 2000 to 2007, only eight regions in the new Member States recorded a lower average growth rates than the EU-27 average.

Dispersion index have the interest of greatly synthesising information. Their drawback is that they do not allow describing the trajectory of observational units (in our case regions) within the

distribution. Such movements can add considerable insights to the analysis of regional disparities by providing more details about the mechanisms at work in the convergence process.

Several methods and instruments can be used to analyse the characteristics and the dynamics of the distribution. One of the most convenient is Markov chain analysis, based on transition probability matrices (see for instance Quah, 1996, Fingleton, 1997, or Overman and Puga, 2002).

The transition probability matrix measures movements within the distribution. For instance, the transition probability matrix above indicates that 43.6% of the regions that were in the class [0, 50] in 1995 moved to the class [50, 75] in 2009. The other 53.8% of the regions remained in the same category.

The transition probability matrix indicates a relative persistence of the distribution. The values on the diagonal are quite high, suggesting a high probability to remain in the same class of GDP per head. However, persistence is less pronounced at the end classes of the distribution. In general, for regions with GDP per head lower than 100% of the EU average, movements towards upper categories are much more frequent than movements down, the reverse being true for regions with GDP per head above this threshold.

Interestingly, the same analysis conducted on the Western Member States regions lead to similar conclusions as summarised in the following table.

1. Quah (1993) or Legallo (2004) rely on a different method for computing the transition probability matrix, where cell ij is the number of occurrence of passages from class i to class j during the whole period of observation. This has the advantage of exploiting the panel dimension of the data and of giving a more precise estimation of the true transition probabilities. Adopting this approach did not lead to substantial differences in the results presented here and we therefore chose to measure transition between the two end dates of the period of observation, since it makes it easier to interpret the transition probability matrix.

Table 2: GDP/head (EU-15=100): Transition probability matrix, Western Member States' NUTS 2 regions, 1995-2009**Transition probability matrix**

			2009				
	GDP/head	Percentage of regions	0-60	60-75	75-100	100-150	150-
1995	0-60	5%	27.3%	63.6%	9.1%	0.0%	0.0%
	60-75	17%	2.7%	48.6%	48.6%	0.0%	0.0%
	75-100	42%	0.0%	6.7%	78.7%	14.6%	0.0%
	100-150	32%	0.0%	0.0%	24.6%	73.9%	1.4%
	150-	3%	0.0%	0.0%	0.0%	28.6%	71.4%

Distribution

	0-60	60-75	75-100	100-150	150-
1995	5%	17%	42%	32%	3%
2009	2%	15%	50%	31%	3%
Long run	0%	8%	57%	34%	2%

Source: EUROSTAT database. DG Regional Policy's own calculation.

The analysis indicates that convergence is still taking place among Western Member States' regions for the period considered. Indeed, 63.6% (respectively 48.6%) of the regions in the class [0, 60] (respectively [60, 75]) moved to the next class between 1995 and 2009. The long-run distribution shows that if most of the convergence has already taken place for the classes of GDP per head above 75% of the EU average, the process remains vivid for the lower classes and is expected to continue in the future.

This tendency is however not captured by dispersion indexes such as the coefficient of variation. The explanation is that the number of regions in the lower categories is relatively small and even if within the Western Member States, poor regions are rapidly catching-up, their weight is too small for this movement to be reflected in summary measures, which fail to capture movements that may be relatively small in statistical terms but are nevertheless of importance from a policy point of view.

However, as stressed by Puga (2001) when discussing the conclusion of Boldrin and Canova that the low pace of convergence in the EU-15 demonstrates the ineffectiveness of cohesion policy, this type of analysis does not in fact convey any information concerning the impact of the policy. Indeed, such analysis does not provide any counterfactual, i.e. there is no means to know what would have happened in the absence of policy interventions. Even if convergence is slow, it could be that it would have been even slower without the policy.

2.2 Econometrics

Econometric analyses mostly focus on the impact of cohesion policy on macroeconomic variables like GDP per head, employment or productivity. In a majority of cases, the approach amounts to estimate a model (in a reduced or structured form) that borrows from growth theory so that the analysis also provides information on the extent and pace of beta-convergence.

For instance, using data for 95 regions of the EU-9 between 1980 and 1997, Cappelen et al. (2003) gauge the effectiveness of cohesion policy in generating growth in poorer regions and promoting convergence in Europe. They point to the need to accompany the support provided by cohesion policy with policies that facilitate structural change and increase R&D capabilities in poorer regions.

Rodriguez-Pose and Fratesi (2004) examine how Structural Funds support is allocated among different development axes in Objective 1 regions for the period 1989 to 1999. The categories of expenditure they consider are infrastructure, education-human capital, business support and support to agriculture. They find no significant impact of Funds devoted to infrastructure or to business support. Only investment in education and human capital has medium-term positive effects, while support for agriculture has short-term positive effects on growth.

Ederveen et al. (2006) attempt to assess the effectiveness of Structural Funds and whether this is conditioned by the quality of regional 'institutions' proxied by quantitative measures of corruption, inflation or openness to trade. Their approach in fact follows the one Burnside and Dollar (2000) applied to assess the effectiveness of aid on growth in developing countries, i.e. the estimation of a beta-convergence specification where measures of institutional quality and the amount of Structural Funds are introduced as additional regressors. Their findings point to the absence of a global significant impact of Structural Funds on regional growth but also suggests that support allocated to regions with high quality of institutions are effective, leading to the conclusion that EU Structural Funds are conditionally effective.

Fagerberg and Verspagen (1996) analyse regional growth in the EU in the post-war period and examine the levels and growth of per capita GDP for a sample of 70 regions, covering six of the EU Member States. They find that during most of the post-war period, regional disparities have steadily declined but that since

the early 1990s, there is a reversal in this trend. Moreover, differences in levels of productivity and income across European regions have remained substantial. According to their findings this would mainly be due to variables, notably R&D effort, investment support from the EU, the structure of GDP and differences in unemployment that have a diverging impact on regional economic performance. They also find some support for the idea of different 'growth clubs' characterised by different dynamics, productivity and unemployment levels.

Other contributions develop arguments borrowed from the Economic Geography. Martin (1999) discusses the role of public infrastructures in a two-region endogenous growth model and analyses the contribution of different types of public policies on growth, economic geography and spatial income distribution. His main conclusion is that public policies that reduce the cost of innovation can attain the objectives of higher growth and more even spatial distribution of both income and economic activities. On the contrary, public policies targeting transport infrastructure face a trade-off between growth and the reduction of regional disparities.

Puga (2002) discusses the role of regional policies, especially transport infrastructure improvements, in the EU context where Member States have developed different production structures and have witnessed an increase in the polarisation of regional unemployment rates. In particular, the paper stresses that the impact of the reduction of transport costs between regions may not foster convergence and can in fact harm the industrialisation prospects of less developed areas. Moreover, the framework also shows how the impact of lower transport costs on less developed regions depends on certain aspects of the economic environment (such as mobility and wage rigidities) and on characteristics of the projects. In particular, while Trans-European Transport Networks (TEN-T) give better access to the main activity centres, they are also likely to increase the gap in relative accessibility between core and peripheral areas, therefore reinforcing the position of core regions as transport hubs.

Relying on spatial econometrics to include spatial effects in the estimation of a conditional beta-convergence model, Dall'Erba and Le Gallo (2007) assess the impact of Structural Funds on convergence among 145 European regions over the period 1989 to 1999. They analyse separately each of the five objectives of regional support. The results indicate either insignificant impact or very small and even negative impact in some cases. However, some of the figures obtained should be considered with caution. In particular, support under Objective 1 is found to have a positive impact in the core regions but an insignificant one in the periphery regions, which shed some doubts on the capacity of such specification to capture and measure the determinants of the regional growth process.

In fact, this family of approaches suffers from a fundamental drawback in the particular case of cohesion policy. Indeed, the allocation of Cohesion Funds is such that the magnitude of the policy injection is inversely related to GDP per head. Consequently, (at least) two explanatory variables are not independent, which introduces bias in the estimation results.

For example, we generated a data set using the following model:

$$GDP\ growth = \alpha + \beta * GDP/head\ at\ starting\ date + \gamma * Z + \delta * CF + \varepsilon_1 \quad (1)$$

$$CF = 1/GDP\ at\ starting\ date \quad (2)$$

where Z is a uniformly-distributed random variable representing the idiosyncrasies of regional economies; CF is cohesion funding and ε_1 is a normally distributed random term. The parameters values were set at $\alpha = 1$; $\beta = -0.02$; $\gamma = 1$; and $\delta = 0.1$. Finally, GDP/head at the starting date ranges from 1 to 125. Equation (2) is a quite good representation of how Cohesion Funds relate to regional GDP per head in reality.

The estimation of (1) using OLSQ yielded the following results:

	α	β	γ	δ
Estimated value	1.18	-0.02	0.88	-0.10
T-Stat	4.55	-8.14	3.10	-0.11

$R^2 = 0.44$; DW = 1.96.

These results are in fact very close to those obtained by a number of the authors cited above on real data, such as, for instance, Ederveen et al. (2006). The use of other estimation techniques, where the system of equations (1) and (2) was simultaneously estimated produced similar results (2SLS, 3SLS, FIML). This example shows how biased the results of such analysis can be and the severe limitation of such approaches for assessing the impact of cohesion policy.

2.3 Economic models

Several analyses in the literature use macroeconomic models or computable general equilibrium models for analysing the impact of cohesion policy.

De la Fuente (2002) assesses the impact of EU cohesion policy on growth and convergence in the Spanish regions, using a supply-oriented model estimated with regional panel data covering a period of 30 years. He finds that the contribution of the 1994-2000 Community Support Framework (CSF) to the growth of output and employment in the poorer Spanish regions is substantial. The model also shows that the growth effects of the CSF vary significantly across territories, reflecting differences in both the volume of investment and in its rate of return, which in turn positively depends on whether or not regions have reached a saturation point in terms of infrastructure.

Bradley et al. (2007) base their analysis on a review of Structural Funds impact assessment carried out using the HERMIN model. The model highlights the central role played by supply-side effects of Structural Funds in order to generate long-lasting impact of the policy. The magnitude of such effects is likely to be affected by the design and/or implementation of the programmes and the model suggests a sensitivity of the impact to the quality of the programmes. In addition, the analysis emphasises that the real, long-term benefits of the Structural Funds are more likely to be associated with the way in which each of the lagging economies responds to opportunities arising in the rest of the EU and the world, rather than with the Structural Funds in isolation. They also stress that structural effects are typically smaller than the demand-side effects of the Structural

Funds, albeit of different magnitudes from one Member State to another.

Honohan et al. (1997) conducted a model-based analysis of the impact of Cohesion Funds on the Irish economy. They find that, depending on the assumptions embodied in the model, on average one percentage point of the Irish economy growth rate in the 1990s could be attributed to support provided under Cohesion Funds. Using the HERMIN framework, Sosvilla-Rivero et al. (2006) find that support provided under the Structural Funds raised the growth rate of Castilla la Mancha by 0.64 percentage points during the period 1988 to 1999.

Finally, Arcalean et al. (2007) develop a two-region endogenous growth model with public investment in infrastructure and education. They calibrate the model to Portugal and find that the Structural Funds can enhance growth in the lagging regions and reduce regional disparities without necessarily producing convergence, the impact not always being sufficient to counterbalance agglomeration economies benefiting the advanced urban regions.

This approach has also its own limitations. In particular, as the policy in fact aims at changing the behaviour of agents (e.g. in terms of education or research and development), the Lucas' critique applies. More specifically, its implementation should lead to a break in the parameters capturing such behaviour, therefore invalidating the counterfactual at the moment the policy is introduced. Second, cohesion policy principally targets key engines of growth such as the stocks of physical and human capital and of knowledge, variables whose level and effects on growth are extremely difficult to measure. Results then depend on a series of assumptions and parameters estimation or calibration. Models therefore provide a convenient instrument for simulating various policy options but their results should not be interpreted as estimations of the policy impact. They indicate the possible nature of the impact (e.g. positive or negative, growing and decreasing in time, bigger or smaller under alternative scenarios) under the assumptions included in the model.

3 Impact assessment with macro and CGE models^[2]

Currently, the Directorate-General for Regional Policy (DG Regional Policy) uses the HERMIN model^[3] for evaluating the impact of cohesion policy and simulating various policy scenarios at country level. DG Regional Policy also regularly relies on other models, in particular QUEST, the dynamic stochastic general equilibrium (DSGE) model developed by the Directorate-General for Economic

and Financial Affairs of the European Commission (Varga and In 't Veld, 2009)^[4], to cross-check and strengthen the robustness of the results.

Any assessment of macro-economic impact starts with the actual spending (figures 2 and 3). For countries that joined the European Union in 2004, most of the benefits from cohesion policy occurred afterwards, i.e. in the second half of the 2000-2006 programming period^[5]. For this period, Spain, Portugal, Greece, Ireland and the regions in Eastern Germany (EG) and Southern Italy (Mezzogiorno – MZ) were the key recipients.

In the 2007-2013 programming period, the situation looks very different. The Member States that joined in 2004 and 2007 are now fully integrated into the framework of cohesion policy. The EU-12 currently account for just over half of cohesion policy expenditure, with much of the rest going to Portugal, Spain, Greece and the macro-regions of Eastern Germany and the Mezzogiorno.

When simulating the impact of cohesion policy, one needs to differentiate between the short term, where demand-side effects are likely to dominate, and the long term, where supply-side effects will dominate. The demand-side arises during the implementation period while the Operational Programmes are being executed. Projects (e.g. road construction, training schemes) boost output and employment (e.g. construction workers, trainers), which creates additional demand through a Keynesian multiplier mechanism.

The demand-side effects can mostly be seen during the implementation period, especially in the HERMIN model, which has a strong focus on demand and multiplier effects. According to HERMIN, cohesion policy increased the level of GDP by 1.13% per annum on average in the main beneficiary Member States^[6] over the course of the spending period (figure 4). Simulations with QUEST, which has stronger crowding-out mechanisms, suggest more modest impact in the short term, ranging from 0.05% per annum in Cyprus to 1.57% in Portugal.

In the long term, the impact of cohesion policy builds with the materialisation of the supply-side effects of the policy. In general, both models highlight the fact that the gains from cohesion spending continue years after cohesion programmes are terminated. This process is illustrated by figure 5, which shows the impact in 2014 being systematically higher than the yearly average impact during the implementation period. Note that this time, QUEST, with its stronger emphasis on endogenous growth fuelled by investments in human capital and RTD, suggests a higher long-term impact than HERMIN.

The main conclusion is that the policy leads to significant benefits in the regions supported. However, some of these benefits take time to materialise. In particular, the supply-side effects remain after programmes have been terminated and the impact

2. Most of the results presented in this section are borrowed from the 5th Cohesion Report (see European Commission, 2010).

3. The HERMIN model has a long history, going back to the late 1980s in Ireland, when it was first applied to cohesion policy analysis. It was developed under the auspices of John Bradley and Gerhard Untiedt. See Bradley and Untiedt (2007) for details about the model.

4. Details about the model and results of the simulations can be found in Varga and In 't Veld (2010, 2011).

5. Note that Regulations allow Member States to use cohesion funding up to three years after the end of the programming period. This is the so-called n+3 rule. For the programming period 2000-2006, the implementation of programmes thus extends to 2009.

6. Main beneficiaries are Greece, Ireland, Spain and Portugal, Mezzogiorno (IT), Eastern German Länder and the EU-12, except Bulgaria and Romania for which lack of data prevented the development of a model.

Figure 2: Average share of cohesion policy expenditure as % of GDP, 2000-2006

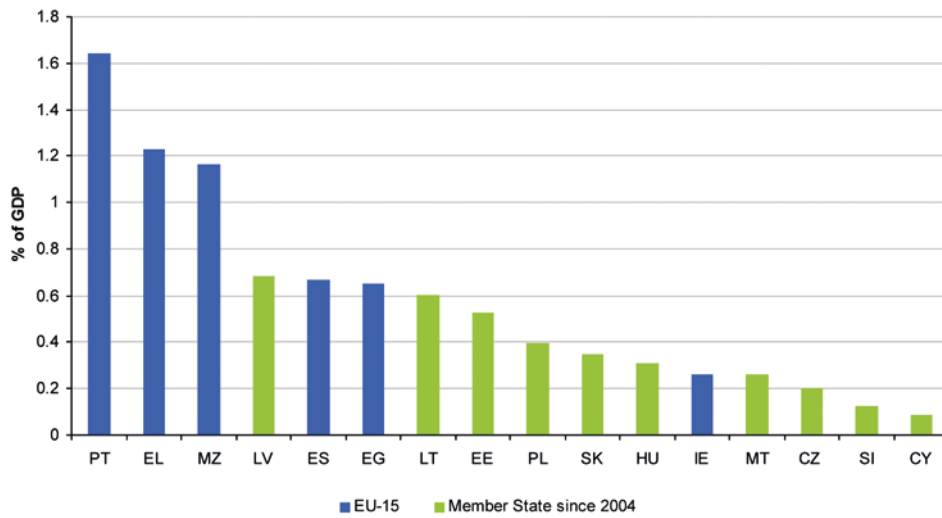


Figure 3: Average share of cohesion policy expenditure as % of GDP, 2007-2013

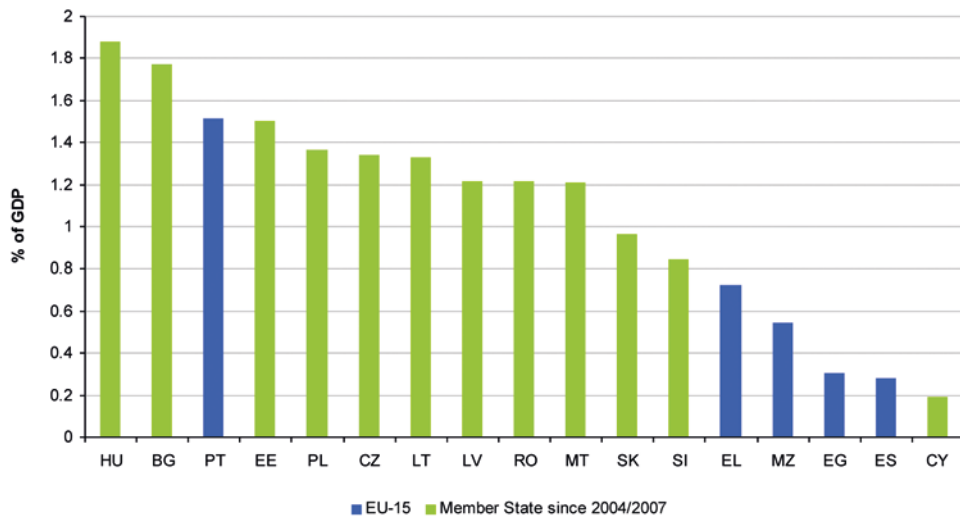


Figure 4: Average annual impact on GDP, 2000-2009

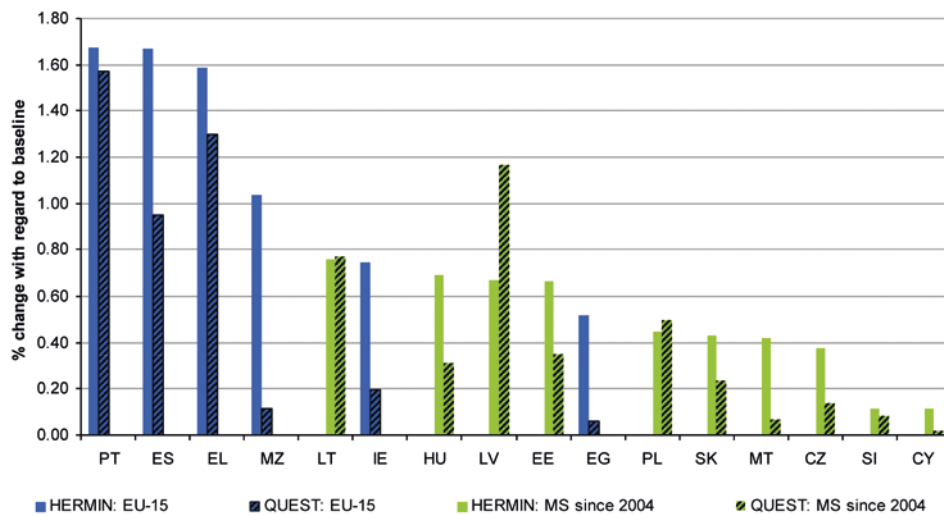


Figure 5: Impact on GDP, 2014

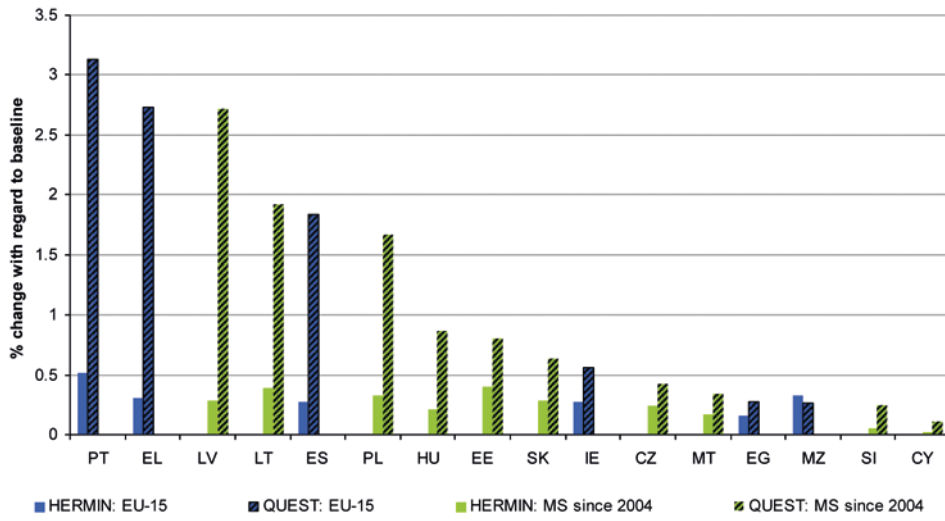


Figure 6: Average annual impact on GDP, 2007-2016

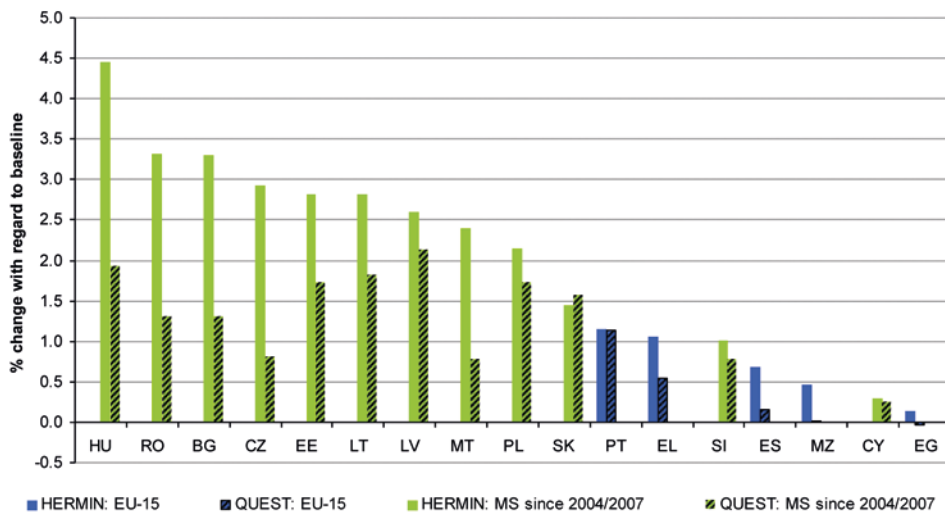
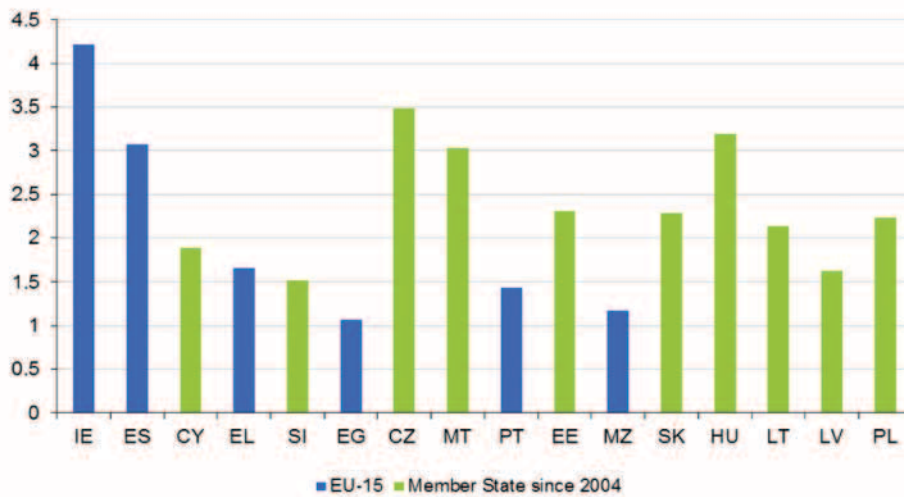


Figure 7: Cumulative multiplier 2014



can continue growing many years after, reflecting the fact that a large share of the spending deeply affects the structure of the economies and fosters endogenous growth mechanisms.

Similar types of results are obtained when simulating the impact of cohesion policy for the 2007-2013 programming period. Again, there is a significant and persistent long-run impact extending far beyond the implementation period (figure 6).

Note that, as a result of higher funding in the new Member States, the expected impact is much higher for 2007-2013 than for the 2000-2006 period. Indeed, as one would expect, the impact in one country is closely related to the scale of funding. In order to make comparisons across countries, we compute a so-called cumulative multiplier by dividing the cumulative increase in the level of GDP by the cumulative funding injection. Figure 7 shows the cumulative multipliers computed with HERMIN for the 2000-2006 programming period, taking into account yearly impact up to 2014.

According to the HERMIN model, Ireland and Spain are expected to achieve the highest return on the cohesion policy investment by 2014. In Ireland, one euro of cohesion policy investment is expected to create more than four euros in the Irish GDP. In Spain, spending one euro is estimated to yield a return of more than three euros. In the group of countries that have been Member States since 2004, the returns are the highest in the Czech Republic, Hungary and Malta and are expected to make the best use of the cohesion policy assistance, with more than a three-fold return on one euro of cohesion policy investment. Overall, in the main beneficiary Member States, each euro of cohesion policy funding will generate an estimated return of EUR 2.10 in the countries' GDP^[7].

4 Improving the effectiveness of cohesion policy

Even if cohesion policy seems to generate positive impact on the recipient economies, there is certainly room for improving its effectiveness. However, in a time when the governments of the Member States are struggling to keep their public finances under control, the question of the added value and the quality of public spending is more than ever of utmost importance.

One key area where improvements could lead to substantial gains in effectiveness is the governance system of cohesion policy. Indeed, it requires a fundamental reform with a view to make it more performance-based and results-oriented. As pointed by the Barca report, there is a series of areas^[8] where such reform should focus: a concentration of the policy on fewer priorities; a stronger evaluation system; a reinforced role for the Commission; a clearer focus on performance; and a high-level strategic debate. These

directions for change can be largely shared with the addition of a more decisive move toward a simpler, more transparent management system. The proposals currently discussed for the future of cohesion policy attempt to tackle some of them.

4.1 A more strategic approach

Lack of strategic approach has often led to a dispersion of resources into incoherent and unconnected interventions. The evidence collected from programme evaluation shows that success is often observed where cohesion policy is included into a coherent national development policy package.

At the same time, cohesion policy is supposed to become a key delivery mechanism of the Europe 2020 strategy. From that point of view, cohesion policy has an important comparative advantage over other delivery channels as it mobilises sub-national actors, economic and social partners, and civil society. In that respect, it responds to one of the key lessons learnt from the Lisbon strategy, namely that policies designed far away from firms and people face problems of implementation.

The transition to a green and digital economy, the reorientation of manufacturing into high-tech sectors, the development of a knowledge economy, skills and greater intra-EU labour mobility will also trigger fundamental changes. As a result, all regions will experience a mix of opportunities and adjustment needs. Cohesion policy can support this process, giving all regions the opportunity to exploit the benefits of the single market.

Europe 2020 should therefore be seen as an opportunity to reinforce the strategic content of the policy, while ensuring a strong EU added value. The proposed reform therefore foresees that Member States and regions should be required to formulate regional development strategies and targets that concentrate EU and national resources on a small number of themes, closely linked to the Europe 2020 priorities. Such a system would decisively orient cohesion policy towards results. It would oblige Member States to prioritise investment toward growth-enhancing areas; and it would ultimately improve accountability and responsibility of Member States and regions.

This system of governance could possibly be accompanied by a set of incentives and conditionality meant to encourage progress in areas directly linked to the operation of the policy, for example in the area of environmental protection, support to SMEs, or innovation.

4.2 Reinforcing territorial cooperation

There is an increasing demand to move beyond pure cooperation and explore stronger commitments. This would imply a considerable reinforcement of the scale and a shift in the nature of territorial cooperation. Aspects to be considered in this regard include an overall EU strategy to frame cooperation activities, providing transnational and cross-border programmes with their own budget (instead of dividing it by Member State) and increasing the exchange of experience and the support for institution building beyond the external borders of the EU.

7. One should not interpret a high value of the cumulative multiplier as a sign of good usage of Structural and Cohesion Funds. Differences in the cumulative multipliers are not only explained by the choices of Member States concerning categories of investment to be financed by cohesion funding, but also by the inherent 'structural' differences between the economies of the recipients.

8. *An agenda for a reformed cohesion policy*, Independent report, April 2009, pp. viii-ix.

4.3 Reducing the administrative burden while maintaining accountability

Total administrative costs (including overheads) are estimated at 3-4% of total eligible expenditure which is, compared to other development policies in the world, not a bad result. However, there is room for improvement. In particular, the financial management and control system emerges as a major subject of criticism.

A better balance must be found between, on the one hand, the rules and procedures required for ensuring effective and proper use of the EU budget, and on the other, reducing the administrative burden for implementing bodies and beneficiaries. The new Lisbon Treaty redefines the respective roles of the Commission and the Member States in article 317 and may provide scope to further clarify their respective responsibilities in the execution of the budget.

The reform proposes to strengthen accountability and transparency as well as introducing simpler rules and lighter procedures to address the complexity of delivery. Yet, it is often observed that the problems the policy faces are not inherent to the policy itself, but to national situations and sometime to the correct application of other Community policies in national contexts. It is therefore projected to pursue the support to administrative capacity building and even reinforce it where necessary.

5 Conclusion

Today, cohesion policy represents more than one third of the community budget, being the second spending post after the Common Agricultural Policy. For some Member States, the financial resources channelled by Structural and Cohesion Funds in their economies represent up to 4% of their GDP, for some the equivalent of more than 8% of public expenditure.

However, the financial and economic crisis that broke in 2008 led to a dramatic deterioration of public finances all over Europe. In such a context, the EU budget and in turn cohesion policy have both moved to the forefront of a wide-ranging debate on the

management of public expenditure. Even more than before, it is necessary to ensure that public money (i) is wisely spent; (ii) on thoroughly-selected priorities supporting relevant strategies and (iii) delivers the expected results.

This paper has attempted to feed this debate, stressing first how difficult it is to measure the impact of a policy such as cohesion policy. Recognising the limitations inherent to all measurement approaches, it reviewed the most important results we currently have to estimate the macroeconomic impact of the policy. In particular, it focused on the simulations carried out with macroeconomic models that highlight the mechanisms through which cohesion policy is supposed to affect the economies of the recipient countries. These analyses converge in that they suggest a positive and significant impact of cohesion policy, especially in the CESEE countries which are its main beneficiaries.

This obviously does not mean that there is no room for improving the effectiveness of the policy and the paper has presented some of the main elements included in the proposals for reforming cohesion policy.

The aspects on which the sections of this paper focused are of key importance for the future of the policy. First, the need to ensure acceptable value for money implies that we must be capable of gauging the impact of the policy. The first important step of recalling the weaknesses of current methods to do so must therefore be followed by another one consisting in improving existing methods or developing new ones.

Secondly, even if cohesion policy mostly finances public investments, which are necessary for securing future growth and fiscal consolidation, and even if without it a number of Member States would have difficulties in playing their role in reaching the objectives of Europe 2020, the current pressure on public finance in the EU requests that important reforms are undertaken in attempt to improve the effectiveness of the policy.

Cohesion policy must be credible in delivering its expected results. It is only under this condition that a consensus may emerge among the EU Member States for maintaining a strong cohesion policy in the future and give it the financial means it needs to fulfil its tasks.

6 References

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