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SUMMARY

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Summary of the report

Regional Disparities in the EU
Are They Robust to the Use of Different Measures and Indicators?

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The reduction of EU regional disparities has been an important issue on the European Commission's policy agenda since at least the mid-1970s, which saw the launch and implementation of the European Regional Development Fund. Several articles in the Lisbon Treaty establish that the EU should deal directly with this issue, of which Article 174 is among the most specific as it states that "the Union shall aim at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions."

Although the stated goal of this article is self-evident, there are at least two points that have captured the attention of academics and policy-makers: how to measure disparities between regions and the practical meaning of the word development. Bearing this in mind, the present report *Regional Disparities in the EU: Are They Robust to the Use of Different Measures and Indicators?* attempts to contribute to the debate by shedding some light on these two points. First, as different measures have been proposed to evaluate the evolution of (regional) disparities, the report attempts to verify whether all of them roughly convey similar information. Second, given that different (single and composite) indicators, other than the traditional per capita GDP, have also been proposed to represent the term development, the paper aims to investigate whether the conclusions drawn from these single and composite indicators are generally similar to those from the per capita GDP.

The report begins by reviewing the most conventional measures of disparity and, in particular, of inequality. The problem with these measures is that – because they employ different weighting schemes and some of them are based on social welfare judgements while others are not – they may offer different views of the extent and evolution of this inequality. The report holds that a practical way of dealing with this issue is to jointly consider a representative set of inequality measures. If all of them point in the same direction, we could be relatively sure about the robustness of the conclusions obtained. Following this rather convenient approach, the report reviews five of the most commonly used summary measures of inequality: σ-convergence, the Gini index, two versions of the Theil index (T(0) and T(1)) and the Atkinson index.

After reviewing these inequality measures, the report turns its attention to the meaning of the term development, as used in Article 174 of the Lisbon Treaty, because it could be interpreted as referring to the well-being or living conditions of European citizens, the actual economic performance of EU countries and regions and/or to the competitiveness of EU countries and regions.

Although researchers, policy-makers and international institutions have proposed different indicators to measure national or, as is the focus of this paper, regional development, it is typically measured by per capita GDP. However, even though it is evident that this indicator is a key component in measuring economic development, other dimensions of development should also be taken into consideration. In this report, we employ two different sets of development indicators. The first is made up of single indicators; to be precise, some highly significant individual socio-economic variables (apart from per capita GDP), such as productivity, wages, household expenditure, disposable income and unemployment and employment rates. The second set consists of various groups of composite indicators that include some and/or all of those individual variables. As both approaches have pros and cons, and there is no generally accepted rule for determining which is best, this report suggests a simple but logical idea: whether all (or most) of the development indicators studied point to conclusions somewhat similar to those obtained using per capita GDP, then we would ascertain a reasonable picture of the evolution of disparities in the development of EU27 regions and of the changes in the ranking of the regions. As a result, policy-makers would be in a better position to address the problems they seek to ameliorate.

Subsequently, and after a word of caution regarding the data used for computing the (single and composite) development indicators, the report applies the inequality measures mentioned above to all of these indicators to assess the evolution of European regional disparities. Regarding inequality measures, the results tend to show that all of them convey more or less the same information, namely a common time pattern leading to a significant reduction of regional disparities in EU27. With respect to the development indicators, the results give support to the conclusion that regional variations in development, whatever indicator is employed, are closely related to variations in per capita GDP. Does this mean we should pay attention to only this variable and ignore other single and/or composite indicators? The report considers that the most prudent answer to this question is that it depends. To be more specific, the report maintains that the answer should be NO if ideally we were able to fulfil these three conditions:

- Agreement regarding the real content of the term development;
- Agreement on the attributes or dimensions that best fit with this concept; and
- Establishment of a basic databank with reliable, consistent and far-reaching time series observations for all the underlying variables (single indicators) behind the previously agreed dimensions.

However, acknowledging the difficulty of achieving these three conditions, the report proposes a straightforward "rule of thumb": keep it simple. In other words, it seems to us that:

1. Per capita GDP is the best single indicator of the degree of development in the EU27 regions, as it is the most widely available and reliable of all indicators. Therefore, increasing efforts should be made by the European statistical offices and, in particular, by EUROSTAT to improve the way this variable is estimated.
2. If, as mentioned in the report, it is considered that the term development refers to a multifaceted concept that, to be properly measured, requires a composite indicator, then we believe that this should be constructed using as few single indicators as possible. In fact, the report considers that the greater the number of single indicators used in the construction of any composite indicator, the more assumptions regarding the data imputation will be required, and the resulting composite indicator will be more difficult to interpret and less reliable.

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