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# Editorial. The Importance of the Regional Dimension in Economic Modelling Studies for Policy Impact Assessment in Europe

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# Editorial

## The Importance of the Regional Dimension in Economic Modelling Studies for Policy Impact Assessment in Europe

Simone Salotti

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**Abstract:** The assessment of the socio-economic impacts of policies and reforms is part of the policy cycle in most advanced countries, and it also attracts the attention of academics and scholars. A thorough comprehension of the effects of public policies is needed in order to improve the design and implementation of the policies themselves, as well as to form better expectations on their likely impact on the society and the economy. The regional dimension deserves to be at the centre stage of policy impact assessment, as even policies with no explicit territorial nature may exert geographically heterogeneous effects. This special issue collects five analyses of a wide range of policies and structural reforms. In all cases, the results suggest that region-specific factors contribute substantially to explain the nature of the socio-economic impacts of European and national policies, as well as of the effects of major events such as economic crises and migration flows.

**Keywords:** impact assessment, regional inequality, general equilibrium modelling.

**JEL classification:** C68, R10, R23.

### 1. Introduction

Effective policies and good legislative proposals need to be informed by adequate and sound impact assessments. The assessment of the likely socio-economic impacts of public policies and reforms is not only an important component of the policy cycle itself (in Europe, and also in other developed countries), but it also attracts the attention of academics and scholars. Thus, the existing impact assessments are not limited to institutional estimates of the likely economic effects functional to the policy implementation, but include a wide range of studies focusing on additional themes and objectives such

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*The views expressed are purely those of the authors and may not in any circumstances be regarded as stating an official position of the European Commission.*

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as, for example, the investigation of the determinants of the policy impact, or the existence of indirect and spillover effects.

These assessments appear to be particularly relevant at the moment of writing as the Covid-19 pandemic resulted in an unprecedented economic crisis in 2020 which in turn triggered policy responses everywhere in order to facilitate a quick economic recovery. Understanding the effects of such policies is of paramount importance in order to improve the quality of future policy responses to similar types of crises, as well as governing the implementation of those policies which are still being deployed because of their multi-annual nature.

The geographical dimension adds a layer of complexity to this picture (Fratesi, 2020), as it is necessary to understand how territories and regions are affected by major events such as the Covid-19 crisis or the 2007-2009 Great Recession (and its aftermath), as well as by regional, national, and supra-national policies. Although not all of these events may explicitly entail territory-specific elements, different regions within each country may respond differently to policies (whether they are place-based or not) and to shocks (either symmetric or asymmetric ones).

For instance, Sakkas *et al.* (2021) suggest that there has been considerable regional heterogeneity in terms of the economic impact of the Covid-19 crisis in the European Union (EU), despite the fact that it hit all the economies at the same time and triggered similar social and economic mechanisms. According to the authors, the heterogeneity in the regional effects of the crisis was mainly driven by the different economic structures of the EU regions. Due to similar considerations, regional heterogeneous impacts could be expected both from policies created with a regional focus such as the European Cohesion policy, and from policies which do not take into account the regional dimension. One example of the latter could be the so-called Recovery and Resilience Facility included in the Next Generation EU plan that is, an investment package worth up to about € 720 billion to be spent by the EU member states by 2026 (Pfeiffer *et al.*, 2021): depending on the regional distribution of those funds within each country, the territorial effects of the policy could vary substantially.

The aforementioned EU Cohesion policy demonstrates well the existence of both institutional and academic interests in policy evaluation. Besides the official policy impact assessments for the 2014-2020 programming period (European Commission, 2018a; 2018b), a number of literature contributions exist which attempt to quantify the macroeconomic impact of the policy, the factors determining the effectiveness of the policy, and other aspects related to it (see, among others, Fratesi, Wislade, 2017; Berkowitz *et al.*, 2019; Rodríguez-Pose, Dijkstra, 2021). A similar case is that of the EU innovation policy: in addition to the institutional assessment (European Commission, 2018c), articles like the one by Veugelers *et al.* (2015) explore its various related dimensions.

Policy assessments can be carried out in several different ways. For instance, counterfactual analyses have been used to study the effects of regional policies (see, among others, Caragliu *et al.*, 2019; and Comi *et al.*, 2019), of national ones (Cerqua, Pellegrini, 2020, provide a historical overview on a number of studies on the effectiveness of Italian firm subsidies), and even European policies (Bondonio, Martini, 2019). The editorials by Mariani (2019) and Mazzola and Pellegrini (2020) present interesting contributions in their respective special issues of *Scienze Regionali – Italian Journal of Regional Science* on policy evaluation.

More in general, at the EU level, impact assessments are carried out with respect to all initiatives which are expected to have significant economic, social or environmental impact. Most policy assessments are carried out using different instruments, including economic modelling simulations, counterfactual analyses and econometric studies (Petrov *et al.*, 2017). Ex-ante assessments are carried out before a decision is taken and prior to implementation to help policy makers select among different policy designs. Interim and on-going evaluations highlight the areas of progress/delay with the aim to improve the efficiency and effectiveness of the policy strategy. Finally, ex-post evaluations take place upon the completion of an intervention, when data on the policy implementation become available.

The five articles selected for this special issue contribute to the literature by providing novel results on the impact of macroeconomic shocks such as those related to policies and economic crises with a regional focus. The methods used by the various authors mainly have a macroeconomic focus and include general equilibrium models, microsimulations, econometrics, and input-output modelling, and all invariably demonstrate the importance of the regional dimension in policy impact assessment.

## 2. The contribution of the special issue

Diukanova, Mandras, and Di Comite (2022) focus on one single region of the EU, Apulia, in Italy, to assess the macroeconomic impact of the European Cohesion policy funds related to the following two Thematic Objectives (TOs): TO1 «Research and innovation», and TO4 «Low-carbon economy». The results are based on a series of estimated input-output demand multipliers, as well as on computer simulations with a spatial dynamic computable general equilibrium model defined over 267 NUTS 2 regions of the EU plus the UK (Lecca *et al.*, 2020). Thus, the article contains a regional analysis of a EU-wide policy and provides insights which could be relevant both for the regional policy makers and for the EU ones who designed the policy at the macro-level.

Livanos and Tzika (2022) focus on one single country, Greece, in order to analyse the impact on employment of the recent economic developments

related to the 2009 crisis in that country which was triggered by the Great Recession. In particular, the focus is on new forms of employment that were traditionally considered as job creators and signs of flexibility like temporary and part-time contracts, but that now seem to mask unemployment and reflect a certain lack of choice on the part of the workers. The authors use econometric modelling techniques to identify the determinants of involuntary non-standard employment, and highlight how the results differ across the various regions of Greece due to the specific economic structures and employment forms characterising the various territories.

Christl, Papini and Tumino (2022) present an analysis of the effective VAT burden of migrant and native households in three EU countries (Germany, France, and Spain) to fill a gap in the literature which so far has concentrated on the net cost of migration in terms of direct taxation and social benefits. Besides showing how the effective tax burden varies depending on personal characteristics, including the migration status, the authors provide evidence of a regional heterogeneity in the effective tax burden which is not explained by the variables which are normally used in this type of analysis. This highlights once again the importance of accounting for regional characteristics in policy analyses, and suggests that policy makers dealing with the fiscal consequences of migration should not forget about it either.

Barbero, Christensen, and Rocchi (2022) present an analysis of the potential macroeconomic effects of a hypothetical reduction in entry barriers in specific services sectors in all the countries of the EU. This type of reform has no regional elements in it, but the analysis carried out by the authors using two general equilibrium models shows that it has the potential of generating impacts which vary substantially across all the NUTS 2 regions of the EU.

Christensen, Conte, Di Pietro, Lecca, and Mandras (2022) also assess the regional macroeconomic impact of a EU-wide policy. In this case, the authors study the legislative proposals contained in the third pillar of the Investment Plan for Europe using a regional general equilibrium model and show that the economic impact on the various EU regions of the measures taken to increase the integration of the EU Single Market could vary substantially from one region to another. The characteristics of the regions affect the way EU-wide policies impact the territories on which they are implemented when assessing the potential impact of policies affecting all member states at the same time. This method highlights the channels through which macroeconomic policies affect both national and regional economies.

In conclusion, the five papers of this special issue emphasize the importance of the regional context in determining the impact on economic growth, development, and employment of national and supranational policies and of other major events such as negative shocks hitting the national economies and, inevitably, their regions. The results and insights contained in this special issue advance the research frontier on regional economics and will hopefully contribute to better policy making in the future by providing solid scientific

evidence on the importance of the regional dimension to both researchers and policy makers.

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