Structural and Interregional Propagation of the Italian Recovery and Resilience Plan

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The National Recovery and Resilience Plan (NRRP) is the main instrument through which the European Union has supported Member States in recovering from the economic and social crisis caused by the COVID-19 pandemic. Within the framework of the Next Generation EU programme, each Country adopted its own National Plan, setting out priorities, reforms, and investments to be financed through the Recovery and Resilience Facility (RRF). The RRF provides financial resources for the period 2021â€“2026 and steers public action along three cross priorities: youth, gender equality and reduction of the regional divide. The following RePower EU has been established as a support for Member States to face the energy crisis.
In Italy, the NRRP is structured into seven Missions reflecting the pillars of the RRF and RePowerEU, targeting strategic areas such as competitiveness, culture and tourism, environmental sustainability, mobility, education, social cohesion, and health. Although the Plan was adopted at national level, its implementing measures have largely been carried out at local level, often with significant differences across Italian regions in terms of timing, intensity, and operational design. The Plan, therefore, represents a unique opportunity to stimulate economic growth, enhance business competitiveness, foster employment, and reduce territorial disparities through a coordinated package of reforms and investments. By analysing expenditure and time scheduling data together with the database published on the Italia Domani website, it is also possible to identify regional disparities in implementation, consistent with the nature of the planned measures. In this perspective, capturing structural territorial differences and the heterogeneous way in which policy shocks are transmitted and embedded across regional economies, becomes crucial in assessing its economic impact.
To this aim, the present study quantifies the impact of the NRRP across Italian Regions through the development of a Dynamic Multiregional Computable General Equilibrium (DMâ€‘CGE) model (Severini et al., 2019; Deriu et al., 2024) calibrated on the Multiregional Social Accounting Matrix (MR-SAM) for Italy (Socci et al., 2025). The model traces all the flows from the generation of value added to the distribution and redistribution of income across institutional sectors and its final use in all Italian Regions, as individual economies but also as components of the Italian national system. The calibration of the model on the MR-SAM ensures consistency with the official National Accounts and serves as the reference point for the counterfactual evaluation of policy interventions (Scarf, 1967).
Since Italian regions are strongly integrated through domestic import and export flows that connect localised production systems and labour markets within a complex net of interdependencies, the introduction of an exogenous shock in one Region - such as an increase in public consumption, an infrastructure investment or an incentive for digitalisation - generates a chain of adjustment mechanisms that propagate to other Regions. In this perspective, the DMâ€‘CGE model formalises these interactions through the support of the MR-SAM, which detail the flows of purchases and sales between industries and territories (Armington, 1969). When a NRRP intervention stimulates production in one Region, the resulting increase in demand for intermediate inputs of for investment may translate into higher interregional imports, with positive effects on the production and income of supplying Regions (Leontief, 1944). This propagation channel creates indirect and induced effects that amplify the initial impact of the policy, making multiregional evaluation essential to understand the actual magnitude of NRRP interventions.
Import-export flows between Regions, therefore, play a central role in the transmission of shocks: on the one hand, the increase in interregional imports represents a channel through which part of the

economic stimulus spreads beyond the territory directly affected by the intervention; on the other hand, the expansion of regional exports can strengthen the ability to retain value added within the local system, contributing to income and employment growth. The production structure of the Regions, the degree of sectoral specialisation, and the intensity of trade relations determine the heterogeneous responsiveness of territories to NRRP interventions, whose differentiated effects are measured in a coherent and systematic way.

Therefore, the proposed multiregional methodological approach provides a comprehensive assessment of how territorial economic systems respond to the Planâ€™s measures, as well as of their capacity to generate positive spillovers, strengthen national value chains, and reduce territorial disparities. In doing so, it offers valuable insights for economic planning and for the design of more effective and better targeted development policies.