

Essays on Public Investments in Green Projects and Development Paradigm of Economic Growth and Environmental Sustainability

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Summary of Research Project

This doctoral thesis is a collection of three empirical essays that develops an analytical framework to assess the impacts of demand-driven recovery investments, in local, regional, and multi-regional economies in equilibrium. These recovery investments are part of a broader regional fiscal spending on many projects, including investment in urban development, environmental quality, industrial sites' rehabilitation, ports, healthcare, social inclusion and education, government systems, and various infrastructure initiatives aimed at stimulating economic growth in regions and cities affected by natural disasters and the economic slowdown caused by COVID-19 pandemic. The practical application of the developed framework is through case studies, including the Taranto Institutional Development Contract (CIS) strategic investment plan in the Apulia region of Southern Italy and the NextGenerationEU (NGEU) recovery investment projects in the Lombardy region of Northern Italy. More specifically, the short-run objectives of the CIS and NGEU recovery plans for Europe in response to the Covid-pandemic crisis are consistent with the European Green Deal (EGD) long-term ambition of reducing greenhouse gas (GHG) emissions 55% by 2030 and climate neutrality by 2050 (EC, 2020; Bongardt et al. 2022). Specifically, the NGEU investment funds are dedicated to EU member states and broken down into six Missions, which represent the main thematic areas of policy interventions (Governo Italiano, 2021). These Missions include (M1) Digitalization, Competitiveness, and Culture; (M2) Green Revolution and Ecological Transitions; (M3) Infrastructure for Sustainable Mobility; (M4) Education and Research; (M5) Inclusive Cohesion; and (M6) Health.

JEL classification: C67, D57, F18, H54, Q56, R12.

Keywords: NGEU investments, policy impact evaluation, cost-benefit analysis, fiscal multipliers, multiregional input-output (MRIO) analysis, gravity model of trade, interregional trade, regional disparities, value-added GDP, GHG emissions, environmental valuation, digital transformation.

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