DOI: 10.1111/roie.12313

SPECIAL ISSUE PAPER

WILEY

Modeling agglomeration and dispersion in space: The role of labor migration, capital mobility and vertical linkages

Francesco Di Comite | **d'Artis Kancs** | **Patrizio Lecca**

European Commission, DG Joint Research Centre, Calle Inca Garcilaso 3, E-41092 Sevilla, España

Correspondence
Francesco Di Comite, European Commission, DG Joint Research Centre, Calle Inca Garcilaso 3, E-41092 Sevilla, España.
Email: francesco.di-comite@ec.europa.eu

Abstract

In this paper we investigate the role played by capital mobility, labor migration and input–output linkages in shaping the spatial distribution of economic activity in a spatial computable general equilibrium framework. We identify European Union core and periphery regions based on an accessibility index and simulate the impact of a homogeneous transport shock. Our results suggest that agglomeration patterns are magnified by labor and capital mobility, the latter exerting a stronger influence than the former. Results are more nuanced for vertical linkages, which are associated with more agglomeration in terms of GDP, but more dispersion in terms of number of firms and labor demand. These results shed additional light on location mechanisms in applied general equilibrium applications of the new economic geography (NEG) theory and complement the theoretical NEG literature based on analytically solvable models.

1 | INTRODUCTION

In this paper we analyze numerically the role played by capital mobility, labor migration and vertical linkages in bringing agglomeration and dispersion of economic activities about in a spatial general equilibrium framework. We study their impact through the lens of the effects that are well documented in the new economic geography (NEG) literature: the market access effect, the price index effect and the market crowding effect. Each effect contributes to a different extent to determine the spatial patterns of economic outcomes. The market access effect captures the fact that firms in central regions have better access to consumers and suppliers than firms in peripheral regions, thus pushing workers and firms to co-locate in more central regions. The price index effect captures the impact of firms'