Environmental regulation and green productivity growth: Empirical evidence from EU industrial sectors

by Daniela Lena | Carl A. Pasurka | Marco Cucculelli | Università Politecnica delle Marche | George Mason University | Università Politecnica delle Marche

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The climate emergency and environmental depletion have become important issues for United Nations countries, and Governments are imposing stringent environmental regulation policies to move towards sustainable growth. In this scenario, pursuing green growth requires firms to adopt new strategies in terms of energy saving, the use of renewable power sources, and the adoption of sustainable production processes. As recent and large literature has pointed out, these changes have significant economic consequences for firms and industries. However, few studies have dealt with the role of environmental regulation at the sectoral level. This paper contributes to this topic by investigating how environmental regulation affects sectoral-level productivity in a sample of selected European economies. Productivity growth is measured using the Malmquist-Luenberger index based on the Directional Distance Function (DDF). We find environmental regulations have a negative effect on productivity growth in several industries in the manufacturing sector for almost all the countries included in the analysis.