An Empirical Analysis on the Pollution Intensities of the United Kingdom

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【Abstract】
This paper examines the changes to pollution intensities (SO₂, NOx, CO and CO₂) of the United Kingdom, by using the Divisia index decomposition technique. The paper decomposes the drivers of the changes in pollution intensities into technology contribution, physical capital intensity contribution and composition contribution. The results find that the aggregate pollution intensity has declined during the period examined. As for SO₂ and NOx, the technology effect was the largest contributor for the decline in aggregate pollution intensity, during a period where only voluntary measures to address environmental issues had been implemented and economic instruments were not yet used to combat environmental issues. On the other hand, concerning CO₂ over the same time period observed, the contribution of technology effect for the aggregate intensity was small, compared with SO₂, NOx and CO, which implies that economic instruments such as emission trading may be necessary for this pollutant.

【Keywords】
decomposition analysis, pollution intensities, physical capital, United Kingdom

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