

Effectiveness of Environmental Taxation: Global Evidence

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ABSTRACT

Environmental pollution and its detrimental effects have been a key focus of society. Environmental taxation is one of the instruments that have been used in controlling this while generating green revenue. This study focused on assessing the effectiveness of environmental taxation on Carbon Dioxide (CO₂) emissions and comparing the effectiveness of environmental taxation between countries. Secondary data was collected for 46 countries from the World Bank data and OECD database of environmental taxation. Two models were used to explain the national CO₂ emissions and per capita CO₂ emissions. The percentage contributions of agriculture and manufacturing sectors to the GDP, fossil fuel energy consumption, and percentage contribution of environmental taxation revenue to GDP were used as independent variables. The regression analysis was performed with the intention of comparing industrialized countries, low-industrialized countries, and countries that have experienced rapid economic growth such as South Korea and China. The comparison suggests that the manufacturing sector and fossil fuel consumption contributed to CO₂ emissions across all the countries. However, the agriculture sector has not contributed to CO₂ emissions. The regression results revealed that environmental taxation has been used as an effective control mechanism against CO₂ emissions in OECD countries, but not in Non-OECD countries. Hence, the development status of the country also plays an important part in the feasibility of controlling environmental pollution through environmental taxation.

Keywords: Environmental Taxation, CO₂ Emissions, Environmental Pollution, OECD Countries, Non-OECD Countries.