

The Effect of Global Value Chain Participation on Environment

Authors : Piyaphan Changwatchai

Abstract : Global value chain is important for current world economy through foreign direct investment. Multinational enterprises' efficient location seeking for each stage of production lead to global production network and more global value chain participation of several countries. Global value chain participation has several effects on participating countries in several aspects including the environment. The effect of global value chain participation on the environment is ambiguous. As a result, this research aims to study the effect of global value chain participation on countries' CO₂ emission and methane emission by using quantitative analysis with secondary panel data of sixty countries. The analysis is divided into two types of global value chain participation, which are forward global value chain participation and backward global value chain participation. The results show that, for forward global value chain participation, GDP per capita affects two types of pollutants in downward bell curve shape. Forward global value chain participation negatively affects CO₂ emission and methane emission. As for backward global value chain participation, GDP per capita affects two types of pollutants in downward bell curve shape. Backward global value chain participation negatively affects methane emission only. However, when considering Asian countries, forward global value chain participation positively affects CO₂ emission. The recommendations of this research are that countries participating in global value chain should promote production with effective environmental management in each stage of value chain. The examples of policies are providing incentives to private sectors, including domestic producers and MNEs, for green production technology and efficient environment management and engaging in international agreements in terms of green production. Furthermore, government should regulate each stage of production in value chain toward green production, especially for Asia countries.

Keywords : CO₂ emission, environment, global value chain participation, methane emission

Conference Title : ICFE 2018 : International Conference on Finance and Economics

Conference Location : New York, United States

Conference Dates : June 03-04, 2018