The Impact of Intra-Industry Trade on the Environment

Topic: CGE models for Policy Analysis
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As globalization becomes an important aspect of economic development, countries with accelerated growths in dirty industries are viewed as contributing to the deterioration of environmental problems such as global warming, deforestation and resource depletion. Globalization, it is argued, leads to the expansion of pollution-intensive production which causes harm to the environment. In the post-1991 period, with the adoption of trade liberalization measures Indiaâ€™s merchandised trade has expanded considerably. One of the important factors of such commendable growth in foreign trade during reform period is the significant expansion in Indiaâ€™s Intra-industry Trade (IIT). Given this circumstance it is an important task to find out whether such rapid growth in IIT has any detrimental effect on environment. With this purpose the current paper separately measures the share of pollution content of Indiaâ€™s â€˜inter-industry tradeâ€™ and â€˜intra-industry trade (IIT), which may provide an insight about the impact of IIT on environment. In this regard, the pollution terms of trade will be used as an indicator to measure the IIT impact on the environment. The paper covers the period from 1998-99 to 2012-13 and focuses on Indiaâ€™s IIT with its two important trade partners, such as the USA and the EU(27). Applying the Grubel-Lloyd index the paper measures the shares of IIT in Indiaâ€™s total trade with the USA and the EU(27), which is further disaggregated to find out the shares of the two forms of the IIT, that is, the Vertical IIT and the Horizontal IIT. The paper observes that the levels of IIT between India and its trade partners have expanded to a large extent, where the shares of the Vertical IIT are dominant over those of the Horizontal IIT. While examining the pollution intensity involved in such rapidly growing IIT, the current paper finds that Indiaâ€™s export in IIT with the USA and the EU(27) are highly pollution intensive (the value of PTOT is greater than one). The PTOT results provide stronger evidence on the pollution haven effect.

*This work is one of the last compilations of Prof. Debesh Chakraborty before his sad demise on 22nd May, 2014. His inspiration and guidance saw us through every line of this paper. We dedicate this paper to his heavenly soul.