

The Effect of EU Environmental Regulation on International Trade:  
Restriction of Hazardous Substances as a Trade Barrier\*

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Abstract

In 2003, an EU commission established a policy restricting the use of hazardous substances, called the Restriction of Hazardous Substances (RoHS) directive. In this paper, the effect of the RoHS directive on international trade in the EU is confirmed. The RoHS directive restricts the sale of machinery, electrical equipment and electronic equipment that contain hazardous substances in EU. Foreign countries, including other EU countries must conform to this regulation, potentially leading to decrease in value of imports to EU countries. I employed the gravity model, using Heckman's (1979) procedure, as well as the extended procedure suggested by Helpman, Melitz, and Rubinstein (2008) to consider the effects on the persistence of trade and the values of trade. Estimated results show that the RoHS directive decreased the fraction of existing trade and the trade values of affected goods in the EU. However, to distinguish between intraregional trade in the EU and importation from outside the EU, I find that the RoHS directive as harmonized standard promotes international trade. Additionally, this policy has the potential to decrease trade value during the transition periods of regulation. The RoHS directive actually works as a protective policy, acting as trade barrier to exportation to the EU market from outside the EU. In EU countries, there is most likely going to be decreases in existing trade, but an increased trade value caused by the harmonized standard.

Keywords

The RoHS directive, harmonized standards, gravity model, intensive and extensive margin, sample selection and firm heterogeneity

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