

Comparison of the emission intensities of industries across European economies

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The environmental impact of an industry is determined by the emissions intensity of its processes as well as the emissions intensities of its suppliers. Here the emissions intensities of industries and their supply chains are compared across European economies using input-output tables which are being developed for use in the EU-funded project entitled 'New Environmental Accounting Framework using Externality Data and Input-Output Tools for Policy Analysis (EXIOPOL)'. The goal of the EXIOPOL project is to construct a series of compatible supply and use tables for the EU27 and other major world economies with which they trade. These tables are to be trade-linked and coupled with environmental extensions to provide a valuable tool for policy analysis.

The supply and use tables for EU countries used in this project are based on the tables provided by the European Statistical Agency. We have disaggregated these tables to provide additional detail in sectors relevant to environmental policy. Tables are expanded using external data sources. Estimation techniques are applied to separate the value of wholesale and transportation margins from the purchaser price transactions for countries which do not provide this information directly. An advantage of this model is the increased level of industry/product detail it will provide when compared to existing multiregional models. Cross-country comparisons of energy and metals sectors are used to demonstrate the benefits that can be achieved by using external data sources to augment the existing tables. The results of our analysis highlight important variations amongst the economies of the EU and provide guidance for focusing efforts to reduce environmental emissions.