

# Determining the Factors and Role of Renewable Policies Affecting US Wood Pellet Export- A Gravity Model

## Approach

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### **Extended Abstract:**

Wood pellets are biomass that can be used to generate electricity. Wood pellet use in electricity generation has rapidly increased since the 2008 because the European Union (EU) and other countries adopted new renewable energy policies that encouraged wood pellet use. The United States (US) is the world's largest producer and exporter of wood pellets. Thus, it is important to identify what factors and policies particularly drive wood pellet exports and what factors create a barriers in wood pellet trade. The objective of this study is to identify the factors and policies affecting wood pellet export by the US. A commodity-specific gravity model with importer fixed effect and both time and importer fixed effect is applied to determine the factors affecting US wood pellets exports. A monthly panel dataset of 11 countries buying wood pellet from the US is examined. The results suggested that renewable electricity production in importing countries, renewable electricity production as a proportion of importing countries Gross Domestic Product (GDP), per capita renewable electricity production in importing countries, US per capita GDP, and US renewable energy policy incenting domestic wood pellet production positively affect US wood pellet export. Importer's research and development policies supporting wood pellet production and trade barrier policies regulating biomass imports negatively affect US wood pellet exports.