

**Time is Oil: Effects of Fuel Price Shocks on the Container Ship Industry and Trade Costs,**  
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How does the maritime container shipping industry react to higher fuel prices, caused either by oil price hikes or emission pricing? Do firms adjust prices or speed, or both? Do they change route characteristics? How do effects depend on fuel efficiency? To answer these questions, we match detailed position data of the global container ship fleet for the period 2014 to 2020 to ship characteristics, and – for a subset of ships – freight rate data. We employ a differences-in-differences analysis for the causal estimation of changes in bunker prices on container shipping. We identify a positive freight rate elasticity of around 0.1 to oil prices, the more significant oil price effect on trade costs derives from lower ship speeds and longer voyage times. Using time elasticities of trade from Hummels (2007), the extension of a 47.5 Euro/ton CO<sub>2</sub> price on intercontinental shipping would cause a 0.4 to 1.4 percentage points increase in ad-valorem tariff equivalents for voyages between the European Union and the United States.