

The Welfare Impact of Market Power: The OPEC Cartel *

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Abstract

We provide an empirical framework to measure the welfare impact of market power that materializes through coordination of production (i.e. cartel) in the global crude oil market. We leverage unique micro data on cost and production to quantify the dead weight loss and productivity inefficiency due to the OPEC cartel. We introduce a framework that recognizes the likely inter-temporal tradeoff that producers face when setting production levels. We rely on an estimated demand system for oil and we consider a range of counterfactual oil supply functions to quantify the welfare loss due to market power. The counterfactual supply curves imply counterfactual price paths that suggest a sizeable impact of market power on the global oil market. This together with the information on field-level costs allows for a model-consistent notion of lost gains from trade due to market power. We find that the welfare impact is large, implying a world-wide revenue tax (on every aspect of economic activity) of about 0.15%, or put differently about 5 trillion USD (in 2014).

Key words: *Market Power, Collusion, Cartel, Antitrust, Oil.*

JEL Code: *D2, L1, L4, L71, Q3*

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