Product Quality and Business Contracts: Intermediary Crude Oil Pricing in a Southwest-US Regional Market

BACKGROUND

- Crude oil plays an important role in the world economy. In the US, domestic oil production has increased, and increased in importance, and this holds the prospect of fundamentally changing the balance of power in the world crude market. This is turn lends importance to the determinants of performance in the US submarket of the world oil market.
- There are four modes of transportation for US domestic crude oil: water tanker, pipelines, railways and motor transport. Pipeline is the predominant form but, for nearly two decades, motor transportation has continuously gained in importance.

METHODOLOGY

- The authors study upstream and downstream prices, and the profit margin of crude oil, for the period 2007-08 in a Southwest-US regional crude oil intermediary market, where oil is transported by motor vehicle.
- The analysis draws on a proprietary dataset from an intermediary firm that buys crude oil from well owners and transports it by motor vehicle to downstream buyers that are mostly oil refineries.
- The authors estimate panel hedonic models to analyse (i) the effects of geographic variables, (ii) the characteristics of bilateral business deals between an intermediary and their upstream and downstream trading partners, and (iii) the quality components of the crude oil on prices and margins.

KEY FINDINGS

- The analyses show that crude oil prices in this market may depend, not only on the market valuation of oil quality, but also on other transaction characteristics such as distance and business contracts.
- In line with existing results, the authors find significant effects of quality components, such as basic sediment and water, sulphur content, and specific gravity, on buying and selling prices and on the profit margin, but only the effect of specific gravity is non-linear.

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CCP Policy Briefing

W: www.competitionpolicy.ac.uk
T: +44 (0)1603 593715
A: UEA, Norwich, NR4 7TJ

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ABOUT THE AUTHORS

- Subhasish M. Chowdhury is a Lecturer in Economics at the Centre for Behavioural and Experimental Social Science, and ESRC Centre for Competition Policy, University of East Anglia
- Oindrila De, works in the Economics Area, Indian Institute of Management Indore
- Stephan Martin is Professor of Economics at Purdue University,West Lafayette

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