The Hong Kong Polytechnic University
Department of Logistics and Maritime Studies
Research Seminar

Contractual barriers to energy efficiency in shipping

by

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(joint work with Haiying Jia)

Date: 13 December 2018 (Thursday)
Time: 10:30am-11:30am
Venue: M802, Li Ka Shing Tower
The Hong Kong Polytechnic University

(Conducted in English)

Abstract:

We show how the concept of demurrage - a core principle of commercial shipping contracts - is at odds with efficient and environmentally friendly vessel operation and represents barriers to improving energy efficiency in maritime transportation. Because demurrage rates are higher than freight earnings in poor markets, shipowners order their ships to "rush-to-wait", resulting in higher fuel consumption and ship-to-air emissions. We propose a new speed optimization model where demurrage is properly accounted for and show that the observed behaviour is rational for a profit-maximizing shipowner. Using a numerical example for Aframax crude oil tankers, we illustrate the economic effects of demurrage on vessel earnings and optimal speed.

Bio:

Roar Ådland joined the Norwegian School of Economics as a professor in 2012 and is currently a visiting scholar at the Center for Transportation and Logistics at MIT. He is the holder of the Bergen Shipowners' Association Chair in shipping economics at the Center for Shipping and Logistics. Professor Ådland received his Ph.D. in Ocean Systems Management from the Massachusetts Institute of Technology (MIT) in 2003. Before becoming an academic, Roar Ådland had a career in the shipping industry, first as an analyst with Clarkson Research Ltd. In London and since 2006 as a trader and portfolio manager of freight derivatives (FFAs) at Clarkson Fund Management Ltd., a shipping-focused hedge fund. Roar Ådlands' research focuses on freight derivative pricing and trading, maritime big data, vessel valuation, shipping risk management and bulk freight market modeling.

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All are welcome!