

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

What Is The Value of Foresight in The Drybulk Freight Market?

by

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(joint work with Vit Prochazka and Stein W. Wallace)

Date: 27 February 2018 (Tuesday)
Time: 10:30am - 11:30am
Venue: R507, Shirley Chan Building
The Hong Kong Polytechnic University

(Conducted in English)

Abstract:

We analyze the value of foresight in the drybulk freight market when repositioning a vessel through space and time. In order to do that, we apply an optimization model on a network with dynamic regional freight rate differences and stochastic travel times. We evaluate the value of the geographical switching option for three cases: the upper bound based on having perfect foresight, the lower bound based on a "coin flip", and the case of perfect foresight but only for a limited horizon. By combining a neural network with optimization, we can assess the impact of varying foresight horizon on economic performance. In a simple but realistic two-region case, we show empirically that the upper bound for large vessels can be as high as 25% cumulative outperformance, and that a significant portion of this theoretical value can be captured with limited foresight of several weeks. Our research sheds light on the important issue of spatial efficiency in global ocean freight markets and provides a benchmark for the value of investing in predictive analysis.

Bio:

Roar Ådland joined the Norwegian School of Economics as a professor in 2012. 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. He also holds a Master of Science degree in marine technology from NTNU, a M.Phil. in Business Economics from NHH and a Master of Science in Ocean Systems Management from MIT. Before becoming an academic, Roar Adland 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 Adlands' 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!