Abstract:
The ship fuels are known as bunkers, but their prices vary from port to port. We hypothesize that the spillovers of bunker price volatility exist among bunker markets such that the volatility of one bunker market will spill over to other markets. Previous studies focus on the volatility spillovers in financial and futures markets. In this study, volatility spillovers in global bunker markets are analyzed by using the two-step approach of Diebold and Yilmaz (2009). Firstly, volatilities are determined by the conditional variances which are specified by the DCC-GARCH model. Secondly, spillover indices are calculated from variance decompositions based on 10-step-ahead forecasts. Our analysis provides evidence of information transmissions between different bunker markets and further quantifies the spillovers effects. We find that there exist volatility spillovers across bunker markets and the Singapore market is regarded as a net transmitter of volatility. The magnitude of Singapore market transmitting volatility decreases in general if the geographical distance between two markets increases. Thus, for stakeholders in bunker markets, Singapore bunker market should receive more attention so as to better manage bunker price risks. Our analysis is important to understand the global market organization of bunkers and its related industries.

Bio:
Li Xiaoxia is currently a PhD student under the supervision of Dr. T.L YIP and Prof. Petrus CHOY. Her research interests are maritime economics and shipping finance.

Please email to winnie.wy.tang@polyu.edu.hk for enquiries.

All are welcome!