

# **Quantile hedge ratio for forward freight market**

## **Abstract**

Forward Freight Agreement (FFA) is used by shipping market players for hedging. We evaluate the hedging performance of the FFAs by comparing the conventional approach of minimum variance with the quantile regression. The quantile hedge ratios tend to be different from the conventional one, indicating the possibility of over- or under-hedge. Including the error correction term reduces the discrepancy between the quantile hedge ratios and the conventional one. The FFA of one-month horizon is more informative to the physical market than other FFAs of longer horizons. Overall, the Panamax sector has a better hedging performance than the Capesize one and the quantile hedge should be preferred for the Capesize sector.