

## Container Shipping in the Economic Crisis Period 2007 – 2010\*

Albert Gardoń

Wroclaw University of Economics and Business, Faculty of Economics and Finance, Wroclaw, Poland

Correspondence should be addressed to: Albert Gardoń, [Albert.Gardon@ue.wroc.pl](mailto:Albert.Gardon@ue.wroc.pl)

\* Presented at the 45<sup>th</sup> IBIMA International Conference, 25-26 June 2025, Cordoba, Spain

### Abstract

It was verified in previous research (see Gardoń, 2014) that a weekly average net freight in container shipping may be successfully modeled by means of the jump-diffusive process with homogeneous Poissonian jumps. However, there are some doubts among the other researchers if the model works properly in crisis periods. For this reason in this paper the behavior of the parameters of the model during the crisis period 2007 – 2010 is deeply analyzed towards their behavior in the rest of the time horizon 2000 – 2012, which the real data gained from one of the leading shipping companies concerns. It turns out that the crisis periods do affect the parameters of the model in a specific way, e.g. the rate of jumps increases visibly, but that does not disturb the main purpose of the model, namely the derivative pricing.

**Keywords:** liner shipping, jump-diffusion, model calibration, crisis periods, freight rate call options