선박포트폴리오 위험관리를 위한 VaR 도입 연구

A Study on the Application of VaR for the Risk Management of Ship-Portfolio

윤재웅* Jae-Woong Youn
박명섭** Myong-Sop Pak

주제어: 선박포트폴리오, 위험관리, VaR, 선박금융, GARCH
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<Abstract>

The high volatility of the ship price makes the ship investment very risky business. for that reason the tool which can monitor and evaluate the market risk is highly needed to manage the risk of the ship investment.

The Value at Risk (VaR) is an appropriate method for such purpose. because it can compare the various portfolios with the single barometer. and so the VaRs of the ship-portfolios are tested and verified in this study.

The ship-portfolios of the carefully selected 4 shipping companies were empirically tested by 6 types of GARCH models and Historical simulation. and eventually the effective VaR has been derived.

The result show that EGARCH is the best appropriate method for VaR of the ship portfolio in the univariate GARCH models and DCC-EGARCH is the best in the multivariate GARCH.

The study results imply that first, the profit rate of ship portfolio has also volatility cluster, leverage effect, fat tail characters like the finance asset. second the ship price volatility can be monitored and evaluated by the VaR and the comparison of the risk by the one common barometer in the various ship portfolios is possible.

Key words: Ship Portfolio, Risk Management, VaR, Ship Finance, GARCH