

## Abstract

In the thesis we perform analysis of systemic risk in the financial and energy sector in Europe. As the econometric tool for estimating dependencies across the subjects we employ factor copula model with GAS dynamics of Oh & Patton (2013b). We apply this model to daily CDS spreads. Based on the estimated results we perform Monte Carlo simulations in order to obtain future values of CDS spreads and measure probability of systemic events. We conclude that substantially higher systemic risk is present within the financial sector. We also find that the most systemic companies from both sectors come from Spain.

**JEL Classification** C53, C55, C58, G17

**Keywords** Credit Default Swap, Energy Sector, Factor Copula, Financial Sector, Generalized Autoregressive Score Model, Systemic Risk

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