



The Spillover Effect for Carbon Emission ETFs: The Analysis of MGARCH Model

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ABSTRACT

This study utilizes MGARCH models to measure the impact of industry ETFs, carbon emissions ETFs, and the S&P 500 index on return and volatility. The CCC model maintains constant interconnection correlations during the time series, highlighting long-term correlations between variables. The DCC model is in charge of monitoring short-term and long-term impacts. The BEKK model emphasizes the relationships between variables and shows their compatibility by considering dynamic dependencies and conditional correlations among the variables over time. The study explains the connections between industry ETFs, carbon ETFs, and the S&P 500 Index and clarifies investment techniques and risk management. Future work on establishing correlations between volatility and spillover effects will allow us to analyze the impact of low-carbon transitory energy companies.

Keywords: Carbon Emissions ETFs, Industry ETFs, Multivariate GARCH, Spillover effects
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