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REVISITING SPILLOVER FEATURES AMONG THE CARBON MARKET AND ENERGY MARKETS

Zhe Tu[1]*, Siyuan Qiu[2]

[1]*Business School, Zhejiang Wanli University, Ningbo, 315100, China*
[2]*International Business School Suzhou, Xi'an Jiaotong-Liverpool University, 215123, China*

Abstract

We re-examine the spillover relationship between the carbon market (CM) and different energy markets from a new perspective. We analyze the spillover relationship between the CM and fossil energy (FE) markets and the CE market from the perspective of total volatility, good volatility, and bad volatility. The results indicate that the CE, crude oil (CO), and coal markets are net spillover contributors, while the CE market and natural gas (NG) market are net spillover recipients. The bad spillover effects between the CM and different energy markets are larger than the good spillover effects, and after the signing of the Paris Agreement in 2016, the bad spillover effects dominated. The CM is more likely to cause declines in the CO and coal markets and increases in the NG and CE markets, while the CM is more vulnerable to the increases in the CO and coal markets and the decreases in the NG and CE markets.

Key words: asymmetric, carbon markets, clean energy, energy markets, spillover features

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* Author to whom all correspondence should be addressed: e-mail: tuzhe1256@163.com