RESEARCH INSIGHTS

COMMON VOLATILITY IN CLEAN ENERGY STOCKS

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EXECUTIVE SUMMARY

This study investigates common volatility (COVOL) within the clean energy sector, motivated by the sector's growing importance and its susceptibility to external shocks. For this purpose, we use the COVOL measure developed by Engle and Campos-Martins (2023) to explore sector-wide and sub-sector common volatility, in a range of sub-sectors including renewable energy, energy storage, energy conversion, power conservation, and greener utilities. Our analysis highlights the major events that significantly impact the volatility of clean energy stocks. These include global economic disruptions, geopolitical tension, policy changes and climate-related events. Other key findings reveal the heterogeneous association of sub-sectors' COVOL to different economic and financial factors, alongside superior explanatory power of COVOL on clean energy risk and return compared to alternative news-based uncertainty measures. These insights emphasize the importance for investors to integrate thorough risk management strategies and for policymakers to create a stable, supportive environment for the clean energy market. The study's implications extend to enhancing sector resilience and informing strategic investment and policy decisions, contributing to the sustainable growth of clean energy amidst global economic and environmental uncertainties.

KEYWORDS

- Clean energy
- Renewable energy
- Sustainable finance
- COVOL
- Common volatility
- Geopolitical risks
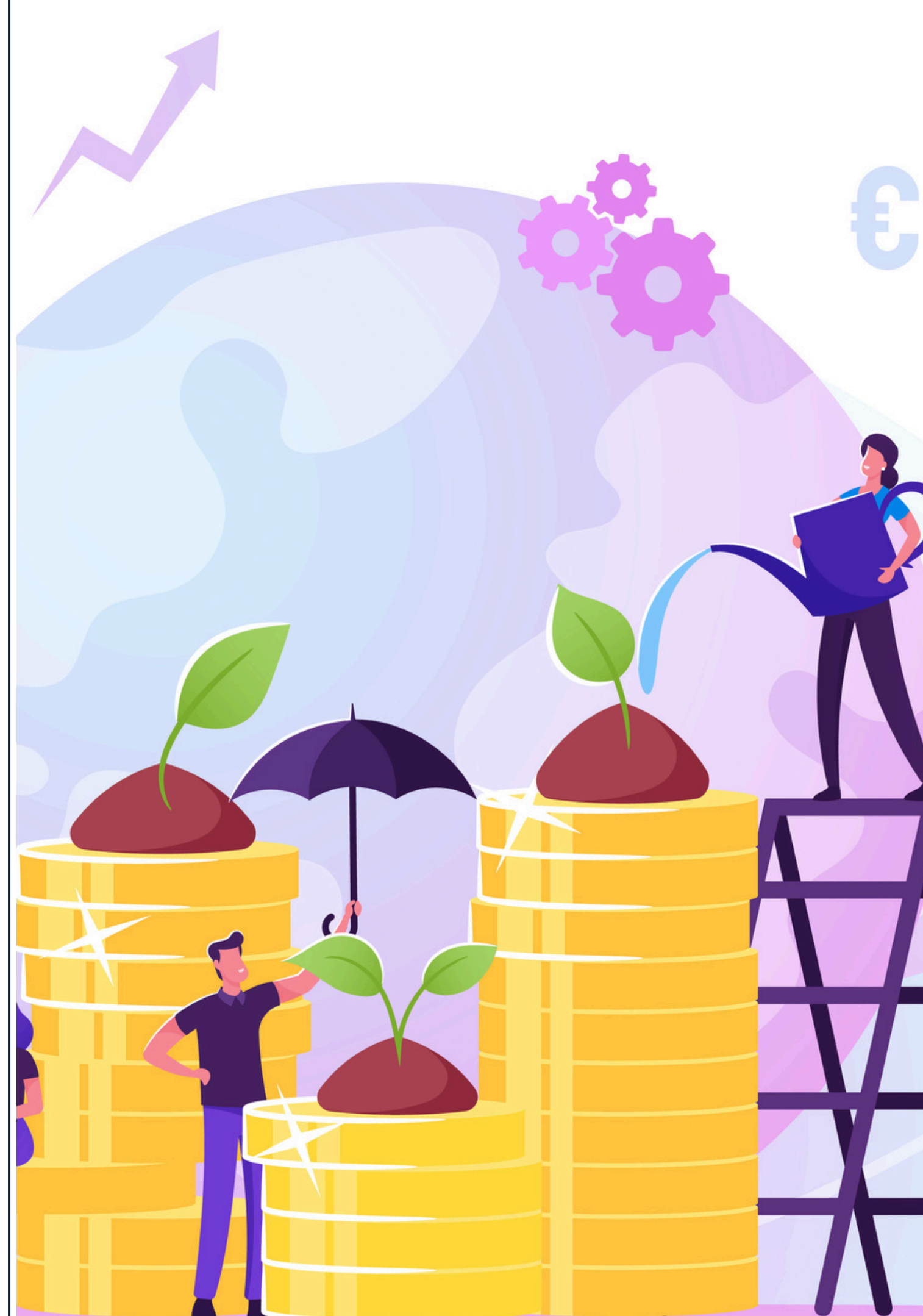
RESEARCH RELEVANCE

- Our study examines the drivers of common volatility (COVOL) in the clean energy sector, offering practical insights for investors, businesses, and policymakers.
- Better risk assessment: Provides a new measure of sector-wide volatility to capture systemic risks.
- Investment guidance: Highlights which sub-sectors and firms are most exposed to global and policy shocks.
- Policy support: Shows how oil prices, geopolitics, and climate policy shape market stability.
- Stronger predictions: Demonstrates that common volatility (COVOL) outperforms traditional uncertainty measures. These insights support smarter investment choices and more effective policy design in clean energy.

BIBLIOGRAPHIC INFORMATION

Pham, L., Pham, S., Do, H., Bissoondoyal-Bheenick, E., & Brooks, R. (2025). Common Volatility in Clean Energy Stocks. Energy Economics, 148, Article 108592. https://doi.org/10.1016/j.eneco.2025.108592

"Common volatility is the missing piece for understanding clean energy risks—offering clearer signals for investors and policymakers alike."

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