

The Interconnectedness and Spillover Effects Across Asset Classes

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Abstract

In the contemporary global landscape, there has been a growing uncertainty characterised by continuous shocks such as the COVID-19 crisis outbreak. This paper analyses the dependence and return spillovers among traditional and modern assets' returns using quantile connectedness approach. It examines data from 02/01/2018 to 30/06/2023 to understand the connections between these assets before, during, and after the COVID-19 pandemic-induced crisis. Empirical results show that correlations between traditional and modern assets vary depending on market conditions, impacting investment advantages across different timeframes. The connectedness of returns evolves over time, with technological advancements primarily influencing modern assets. These asset dependencies exhibit asymmetry and respond differently to quantile measures. During crises, especially at extreme quantiles, both the connectedness and spillover indices significantly rise, indicating a stronger relationship between traditional and modern assets in extreme market conditions. Green bonds, Gold, and AI assets emerge as safe-haven investments at these extremes. The paper notes an increase in contagious effects within returns of traditional and modern assets during the pandemic-induced crisis, signalling elevated market risk. From the diversification perspective, risk-averse investors may, therefore, benefit from allocating a significant portion of their portfolio to green bonds, AI, FinTech, and Gold during extreme market conditions.

Keywords: Spillover effects, quantile connectedness, asset returns, portfolio optimisation