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Extreme dynamic connectedness and hedging strategy across commodity, bond, currency, and stock markets: Evidence from Asian Pacific, Canada, Mexico, and US countries

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Extreme dynamic connectedness and hedging strategy across commodity, bond, currency, and stock markets: Evidence from Asian Pacific, Canada, Mexico, and US countries

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Abstract:

This study investigates the interconnections among green bonds, non-green bonds, the US Dollar Index, precious metals (gold and silver), the Dow Jones Commodity Index (DJCI), and stock markets in the Asia-Pacific region (including Australia, China, Japan, Malaysia, Philippines, Russia, Singapore, South Korea, and Thailand), Canada, Mexico, and the United States. Additionally, the research delves into the costs and effectiveness of hedging in a diversified stock portfolio. The findings unveil a substantial presence of significant spillovers across these markets. Green bonds, the US Dollar Index, DJCI, gold, silver, and the stock markets of Canada, Mexico, and the US are identified as net contributors to spillovers, while Asia-Pacific stock markets are recognized as net receivers of shocks. The spillover magnitude exhibited a moderate level pre-pandemic, experienced an upward trend during the COVID-19 and Russian-Ukraine conflict periods, and declined during the vaccine distribution phases. The impact of COVID-19 on spillover magnitude appears to be more pronounced than that during the Russia-Ukraine tension. Furthermore, the overall connectedness is observed to be dynamic over time, displaying sensitivity to crisis periods.

Keywords: Asian pacific stock; Commodities; Connectedness; Hedging; quantile