Analisis Spillover Risiko serta Dampak Volatilitas dan Return Cryptocurrency terhadap Pasar Keuangan Indonesia: Pendekatan Time Varying Parameter VAR dengan Extended Joint Connectedness = Exploring the Spillover Risk from Volatility and Returns in Cryptocurrency and Indonesia's Financial Markets: An Extended Joint Connectedness Approach with TVP-VAR

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Abstrak

Cryptocurrency telah menjadi bagian penting dalam sistem keuangan global karena sifatnya yang desentralisasi dan volatil. Di Indonesia, aset digital ini semakin diminati masyarakat meskipun belum diakui sebagai alat pembayaran yang sah, melainkan sebagai komoditas yang dapat diperdagangkan. Volatilitas harga cryptocurrency yang tinggi menimbulkan kekhawatiran terhadap potensi risiko sistemik dan transmisi ke berbagai sub-pasar keuangan domestik seperti saham, obligasi, valuta asing, dan emas. Penelitian ini bertujuan untuk mengukur hubungan dinamis antara return dan volatilitas empat jenis cryptocurrency utama (Bitcoin, Ethereum, Binance Coin, dan Ripple) terhadap pasar keuangan Indonesia. Dengan menggunakan pendekatan Time-Varying Parameter Vector Autoregression (TVP-VAR) yang diperluas dengan extended joint connectedness, studi ini mengevaluasi Total Connectedness Index, Net Pairwise Spillover, dan impact degree antar aset. Hasil penelitian menunjukkan bahwa meskipun terdapat spillover antara cryptocurrency dan pasar keuangan Indonesia, pengaruhnya relatif terbatas. Spillover antar cryptocurrency jauh lebih besar dibandingkan hubungan dengan pasar keuangan domestik. TCI untuk return sebesar 35,19 dan volatilitas sebesar 42,2 mengindikasikan bahwa keterhubungan masih pada tingkat rendah ke sedang. Selain itu, pasar keuangan Indonesia lebih berperan sebagai penerima risiko (net receiver), terutama dalam hal volatilitas. Implikasi kebijakan dari temuan ini adalah pentingnya penguatan pengawasan terhadap perdagangan aset kripto di Indonesia, termasuk perlunya koordinasi antar lembaga seperti OJK dan Bank Indonesia untuk mengantisipasi potensi transmisi risiko ke sektor keuangan domestik. Selain itu, edukasi investor dan transparansi informasi perdagangan aset digital perlu ditingkatkan guna memitigasi risiko volatilitas tinggi dan mendorong pengembangan pasar keuangan yang lebih stabil dan inklusif.

......Cryptocurrencies have become an integral part of the global financial system due to their decentralized and volatile nature. In Indonesia, although not recognized as legal tender, digital assets are increasingly gaining popularity as tradable commodities. The high price volatility of cryptocurrencies raises concerns about potential systemic risks and spillovers to various domestic financial sub-markets such as stocks, bonds, foreign exchange, and gold. This study aims to measure the dynamic relationship between the return and volatility of four major cryptocurrencies (Bitcoin, Ethereum, Binance Coin, and Ripple) and Indonesia's financial markets. Employing the Time-Varying Parameter Vector Autoregression (TVP-VAR) approach, extended with extended joint connectedness, the study evaluates the Total Connectedness Index (TCI), Net Pairwise Spillover, and impact degree among the assets. The results show that while there is evidence of spillover between cryptocurrencies and Indonesia's financial markets, the influence is relatively limited. Spillovers among cryptocurrencies are significantly greater than their connection with domestic financial markets. The TCI for return is 35.19 and for volatility is 42.2, indicating a low-to-moderate level of

connectedness. Furthermore, Indonesia's financial markets tend to act more as risk receivers (net receivers), particularly in terms of volatility. These findings suggest the need for stronger regulatory oversight of cryptocurrency trading in Indonesia, including coordination among institutions such as the Financial Services Authority (OJK) and Bank Indonesia to anticipate possible risk transmissions. Investor education and increased transparency in digital asset trading are also essential to mitigate volatility risks and support the development of a more stable and inclusive financial market.