

INTISARI

ANALISIS HARGA *CRYPTOCURRENCY* DAN INDIKATOR MAKROEKONOMI DENGAN MODEL *STRUCTURAL VECTOR* *AUTOREGRESSION*

Putu Indra Wibisana
19/442605/PA/19354

Kehadiran teknologi *blockchain* mendasari terbentuknya mata uang kripto (*cryptocurrency*) yang menjadi mata uang yang dianggap relevan sebagai mata uang digital dan aset investasi. Ketertarikan masyarakat dunia terhadap *cryptocurrency* mengakibatkan banyak peneliti berusaha memprediksi dengan akurat harga dari barang ini. Telah banyak peneliti yang berusaha meneliti efisiensi pasar dan volatilitas dari *cryptocurrency* yang dianggap sebagai tempat investasi terlindungi. Hal ini bukan tanpa sebab, *cryptocurrency* telah diteliti dapat menjadi alternatif tempat berinvestasi di saat aset lainnya mengalami fluktuasi harga. Kebijakan makroekonomi yang ketat meningkatkan fluktuasi harga aset investasi. Memahami dampak dari kebijakan makroekonomi merupakan hal yang penting dalam mengembangkan model peramalan harga *cryptocurrency*. *Vector Autoregression* yang umumnya digunakan sebagai model peramalan multivariat memiliki kekurangan karena tidak dimungkinkan untuk memberi dasaran teoritis untuk memahami dinamika hubungan antar variabel dalam model. Maka dari itu, menggunakan plot *Impulse Response Function* dan *Forecast Error Variance Decomposition* berdasarkan model *Structural Vector Autoregression* menjadi hal yang penulis kenalkan untuk meneliti dinamika hubungan antara kebijakan makroekonomi terhadap harga *cryptocurrency* dalam periode penelitian pra-pasca COVID-19. Penelitian menggunakan periode pra-pasca COVID-19 Serikat dikarenakan pemerintahan Amerika Serikat melancarkan kebijakan ekonominya yang ketat dalam periode tersebut. Pada penelitian ini, ditemukan hasil bahwa guncangan akibat kebijakan makroekonomi tidak signifikan memengaruhi harga *cryptocurrency*.

Kata kunci: *Structural Vector Autoregression*, *cryptocurrency*, indikator makroekonomi, *Impulse Response Function*, *Forecast Error Variance Decomposition*.

ABSTRACT

CRYPTOCURRENCY PRICE AND MACROECONOMIC INDICATORS ANALYSIS USING STRUCTURAL VECTOR AUTOREGRESSION MODEL

Putu Indra Wibisana
19/442605/PA/19354

The presence of blockchain technology underlies the formation of cryptocurrencies, which are considered relevant as digital currencies and investment assets. Global interest in cryptocurrencies has led many researchers to seek accurate predictions of the prices of these commodities. Numerous researchers have investigated the market efficiency and volatility of cryptocurrencies, considering them as a relatively protected investment haven. This is not without reason, as cryptocurrencies have been explored as an alternative investment during periods of price fluctuations in other assets. Strict macroeconomic policies contribute to the fluctuation in the prices of investment assets. Understanding the impact of macroeconomic policies is crucial in developing forecasting models of cryptocurrency price. Vector Autoregression, commonly used as a multivariate forecasting model, has limitations as it does not provide a theoretical basis to understand the dynamic relationships between variables in the model. Therefore, introducing the use of Impulse Response Function and Forecast Error Variance Decomposition based on the Structural Vector Autoregression model becomes essential for investigating the dynamics of the relationship between macroeconomic policies and cryptocurrency prices during the pre-post COVID-19 study period. The study focuses on the pre-post COVID-19 period in the United States due to the strictly economic policies implemented by the U.S. government during the period. The findings of this research indicate that shocks resulting from macroeconomic policies do not significantly affect cryptocurrency prices.

Keywords: Structural Vector Autoregression, cryptocurrency, macroeconomic indicators, Impulse Response Function, Forecast Error Variance Decomposition.