

## **ABSTRACT**

*This study aims to analyze the relationship and the effect between foreign direct investment, renewable energy consumption and carbon dioxide (CO<sub>2</sub>) emissions in Indonesia in 1990 – 2019. This research uses the Vector Error Correction Model (VECM) method and the Granger causality test. The results show that there is a unidirectional causality relationship from the renewable energy consumption variable to foreign direct investment. On the other hand, based on the results of the short-term Vector Error Correction Model (VECM) estimates, there is no significant effect of foreign direct investment and renewable energy consumption on carbon dioxide (CO<sub>2</sub>) emission levels. However, in the long run, foreign direct investment has a positive and significant effect on carbon dioxide emissions. This means that an increase in FDI entering Indonesia will be followed by an increase in the amount of carbon dioxide (CO<sub>2</sub>) emissions. In addition, the renewable energy consumption variable has a negative and significant effect on the level of carbon dioxide (CO<sub>2</sub>) emissions. This means that an increase in renewable energy consumption will lead to a decrease in the amount of carbon dioxide (CO<sub>2</sub>) emissions in Indonesia.*

**Keywords:** *foreign direct investment, renewable energy consumption, carbon dioxide emissions (CO<sub>2</sub>), Vector Error Correction Model (VECM).*

