

ABSTRACT

Maya Yunita: *The Effect of Air Pollution, Foreign Direct Investment, Migration, and Population on Economic Growth in ASEAN*

Economic growth is a key indicator used to measure the success of a country's development. In the ASEAN region, economic growth is influenced by various economic, environmental, and demographic factors, including air pollution (CO₂), Foreign Direct Investment (FDI), migration, and population. This study aims to analyze the effects of air pollution, FDI, migration, and population on economic growth in ten ASEAN countries during the 2013–2024 period. This research employed a quantitative approach using panel data regression analysis with secondary data obtained from the World Bank, consisting of 120 observations. Based on the Chow test, Hausman test, and Lagrange Multiplier test, the Fixed Effect Model (FEM) was selected as the most appropriate estimation model.

The results indicate that, partially, air pollution (CO₂) and migration have a negative and significant effect on economic growth, while Foreign Direct Investment (FDI) and migration has a positive and significant effect on economic growth in ASEAN countries. These findings suggest that economic growth in ASEAN is influenced not only by economic factors but also by environmental quality and demographic dynamics. Therefore, policies aimed at controlling air pollution, improving the quality of foreign investment, and optimizing migration and population management are essential to support sustainable economic growth.

Keywords: *Economic Growth, CO₂, Foreign Direct Investment (FDI), Migration, Population, ASEAN.*

ABSTRAK

Maya Yunita: Pengaruh Polusi Udara, Investasi Asing Langsung, Migrasi, dan Populasi Terhadap Pertumbuhan Ekonomi di ASEAN.

Pertumbuhan ekonomi merupakan indikator utama dalam mengukur keberhasilan pembangunan suatu negara. Di kawasan ASEAN, pertumbuhan ekonomi dipengaruhi oleh berbagai faktor ekonomi, lingkungan, dan demografi, seperti polusi udara (CO_2), investasi asing langsung (*Foreign Direct Investment*/FDI), migrasi, dan populasi. Penelitian ini bertujuan untuk menganalisis pengaruh polusi udara, FDI, migrasi, dan populasi terhadap pertumbuhan ekonomi di 10 negara ASEAN selama periode 2013–2024. Penelitian menggunakan pendekatan kuantitatif dengan metode regresi data panel menggunakan data sekunder yang bersumber dari World Bank sebanyak 120 observasi. Berdasarkan hasil uji Chow, Hausman, dan *Lagrange Multiplier* (LM), model terbaik yang digunakan adalah *Fixed Effect Model* (FEM).

Hasil penelitian menunjukkan bahwa secara parsial polusi udara (CO_2) dan populasi berpengaruh negatif dan signifikan terhadap pertumbuhan ekonomi, Investasi asing langsung dan migrasi berpengaruh positif dan signifikan, terhadap pertumbuhan ekonomi di negara-negara ASEAN. Temuan ini menunjukkan bahwa pertumbuhan ekonomi di kawasan ASEAN tidak hanya dipengaruhi oleh faktor ekonomi, tetapi juga dipengaruhi oleh kualitas lingkungan dan dinamika demografi. Oleh karena itu, diperlukan kebijakan yang mampu mengendalikan polusi udara, meningkatkan kualitas investasi asing, serta mengoptimalkan pengelolaan migrasi dan populasi guna mendukung pertumbuhan ekonomi yang berkelanjutan.

Kata kunci: Pertumbuhan Ekonomi, CO_2 , Foreign Direct Investment (FDI), Migrasi, Populasi, ASEAN.