

The Macroeconomic Determinants of Export Performance: Evidence From ASEAN-5 (1998-2023)

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Abstract

Purpose: The purpose of this study is to analyze the impact of macroeconomic variables FDI, GDP, inflation, and real interest rates on export performance in ASEAN-5 developing countries during 1998–2023.

Methodology: This study uses panel data regression with secondary data sourced from ASEAN-5 countries over a 26-years period. The model specification is based on the Chow and Hausman test, which determined the Fixed Effects Model (FEM) as the most appropriate model for estimation.

Results: The test confirmed that the Fixed Effect Model (FEM) model, the results of this study proved that the FDI variable has a significant effect on exports with a negative effect, then the GDP and Inflation variables each have a positive effect on exports in developing ASEAN-5 countries, and for real interest rates do not have a significant effect on exports.

Applications/Originality/Value: This study contributes to the literature by integrating four key macroeconomic indicators FDI, GDP, inflation, and the real interest rate into a single panel model for ASEAN-5 over 1998–2023, offering a broader perspective than prior single-variable or single-country studies. The findings show that export performance is primarily driven by production capacity and price stability, while the real interest rate is not a significant determinant. These results provide important policy implications for strengthening export strategies and managing FDI inflows, and they reinforce the Export-Led Growth framework while opening new discussion on the quality of FDI in ASEAN.

Introduction Section

In the open economies of several countries in the world, the effects of globalization and integration in the economic sector will have a direct impact on the volume of trade in each country, and ultimately will affect economic growth in various countries with open economies (Hidayat *et al.*, 2024). Export activities will provide a flow of foreign exchange that aims to strengthen foreign exchange reserves in a country and ultimately strengthen the stability of the country's economy (Aisyah and Renggani, 2021). Exports in international trade play an important role in designing the global economic architecture because currently no country can stand strong without having relations with other countries and exports play a key role in driving the economic growth of a country (Rotinsulu, Sumual and Kumaat, 2020). A country's economic growth can be stimulated by increasing exports through various means such as increasing national income, capital accumulation and the transfer of technology and knowledge due to export activities (Rotinsulu, Sumual and Kumaat, 2020). Exports also have a multiplier effect on other sectors such as the industrial, logistics, and financial services sectors, which can strengthen a country's economic base. Furthermore, previous research also reveals the significant contribution of exports to a country's growth (Lee, Hasyim and Lin, 2023). In this study, the researcher aims to see the relationship between Foreign Direct Investment, Gross Domestic Product, Inflation, and Real interest rates on Exports in developing ASEAN countries.

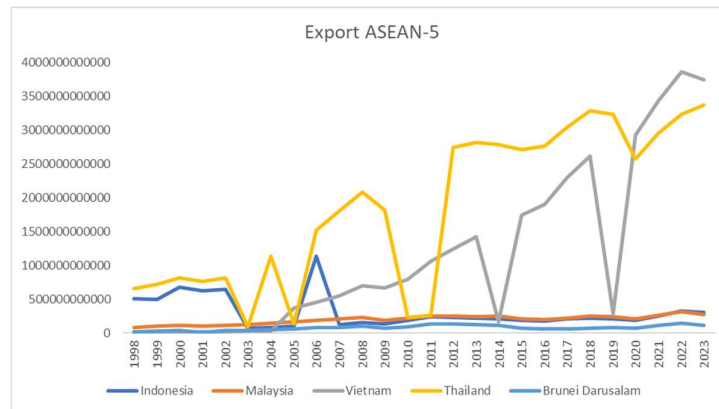


Fig. 1. Development of export performance in ASEAN-5

Source : World Bank Indicators (WDI)

In the last few decades, there have been significant changes in export performance in developing countries in ASEAN, especially in Indonesia, Malaysia, Vietnam, Thailand, and Brunei Darussalam, for example in Thailand and Vietnam which increased sharply after the 2010 period. The increase in exports that occurred in these countries does not only reflect an increase in nominal export volume, but can also be driven by structural dynamics such as international market integration, technology adoption, and the Global Value Chain (GVC) (Nguyen and Choi, 2025). In this study, the export variable was chosen as the dependent variable because export is an important thing because it functions as one of the drivers of economic growth, especially for a developing country, because it encourages foreign exchange earnings resulting from export activities, global supply integration and external stability, previous research suggests that international trade and economic openness play a significant role in strengthening economic resilience, especially in the Asian region, therefore research on export determinants has a high level of urgency (Nguyen *et al.*, 2023). Based on this, this study aims to analyze macroeconomic factors influencing export performance in developing countries in ASEAN-5 in the period 1998-2023.

Indonesia is one of the countries with a large economy in the ASEAN region, this is added to Indonesia's central position as one of the centers of FDI flows, because it is one of the exporting countries, especially in the manufacturing, commodity and natural resource sectors which are the characteristics of superior products from developing countries, the growth of the Indonesian economy itself is also influenced by the dynamics of FDI, inflation, and interest rates, this makes Indonesia an important country to study (Helmi *et al.*, 2024). Malaysia is one of the developing countries in ASEAN with a characteristic as a country with stable FDI flows in the electronics, automotive and medium-high technology products sectors (Ahmed and Mohsin, 2023). Thailand itself is the largest automotive industry center in ASEAN and makes this country more sensitive to macroeconomic sentiments such as interest rates, inflation, exchange rates and so on (Dwi *et al.*, 2023). Vietnam itself was chosen because Vietnam is a new export star in ASEAN, one of which is marked by FDI growth and also a global industrial shift with very rapid growth (Xu, Trong and Hoang, 2023).

The country of Brunei Darussalam was chosen because it has unique characteristics, because it has a small economy but is rich in resources and is dependent on the oil and gas sector which is used as the main export product in the country. (Report, 2023). This study selected Indonesia, Malaysia, Vietnam, Thailand, and Brunei Darussalam based on their different but complementary economic characteristics. Variations in these characteristics are very relevant to test how the variables of FDI, GDP, inflation, and real interest rates influence export performance in ASEAN 5. In this context, it is important to observe and examine the factors that can influence the differences in the rate of exports between these countries. Although there has been progress in carrying out economic integration and domestic trade, there is still considerable room for strengthening integration and exports between member countries (A. Abdou *et al.*, 2022).

Investment is an important component to support the economic growth and exports of a country, Foreign Direct Investment is an important factor in driving exports and economic growth in a country because it can help provide increased productivity with the presence of new technology that increases efficiency (Popa, 2020), Foreign Direct Investment is an investment activity carried out directly in another country, including Merger and Acquisition (M&A), establishing or building new production facilities, reinvesting profits from profits obtained and funds in the form of company debt, especially multinational companies (MNCs) (Narula and Pineli, 2023). Previous research has shown that foreign investment directly impacts exports in developing countries with middle incomes, with a direct relationship between inflow and outflow (Alaa Shaker Mahmood Al-Douri and Saad Mahmood Khaleel Al-Kawaz, 2024)

Gross Domestic Product (GDP) is an important measure of a country's economic activity because it reflects the total amount of all the value of goods and services in a particular country and in a certain time period. GDP itself can be calculated using several methods, namely the production, income and expenditure approaches (Bătușaru, Baboș and Pîrviuț, 2023), there is an idea that a larger economy will be able to produce a larger output surplus for export, in countries with a larger economic scale usually tend to carry out more export activities which emphasizes the role of GDP growth in increasing export capacity (Lim, 2024). Larger economies tend to conduct higher volumes of trade transactions as well because they are followed by relatively large demand and purchasing power. Previous research revealed that exports in ASEAN countries have an influence from Gross Domestic Product (GDP). The higher the GDP, the greater the demand and purchasing power, which ultimately encourages an increase in exports (Le, 2025). On the other hand, GDP growth is important because it has a crucial role in increasing exports of developing countries, especially in ASEAN. GDP is considered to reflect the capacity of producing goods and services in a country. Therefore, increasing GDP is very important because it can reflect the ability to produce goods and services that can later be exported by the country to the global market. This is proven by research over 30 years in several developing countries in ASEAN. The correlation between GDP and exports is the strongest in both the short and long term, which means that the higher the growth of GDP, the potential for exports will also increase higher and reach its highest potential (Tuyen *et al.*, 2025).

Inflation is one of the macroeconomic factors that plays a role in determining the value of a country's exports. If inflation increases, it will cause the prices of goods and services in the domestic market to increase as well, thereby reducing the competitiveness of domestic products. Conversely, if inflation is controlled, the competitiveness of national products will be strong and will encourage export growth (Yefta Fikanur Febiana *et al.*, 2024). Controlled inflation will stimulate economic growth and attract investment, which will indirectly support the export prospects of a developing country, considering that exports are an important factor for developing countries because they can provide a multiplier effect (Ningsih and Harningtias, 2023). A study based on the export-price ERPT value in India, for example, explains that export prices show exchange rate pass-through into material export prices in Asia, thus making inflation potentially affect the volume and value of exports. This is relevant for ASEAN due to the similarity of structure and also trade openness (박하림, 2024).

When talking about exports, it is inextricably linked to foreign exchange. Foreign exchange itself is a key indicator of a country's export and import activities. Recent research on the relationship between real interest rates and export levels shows that interest rates have no effect on a country's foreign exchange reserves in either the short or long term. Conversely, GDP variables strengthen the influence on a country's export levels. This confirms that changes in real interest rates do not directly boost or restrain a country's export performance (Ana Aufa Azelia and Desmintari, 2025). In macroeconomic studies, interest rates are considered to be one of the monetary policy factors that can influence economic indicators. In the case of certain countries, interest rates do not have an influence on export activities. In recent research, it was found that interest rates do not always have a significant influence on export values, either directly or indirectly, influencing the volume or value of export transactions generated (Yefta Fikanur Febiana *et al.*, 2024). This confirms that monetary policy controlling interest rates does not necessarily have an influence on increasing exports in a country.

Based on the text description above, it can be seen that the dynamics of exports in developing countries in ASEAN are greatly influenced by the interaction of foreign investment, domestic production capacity, and macroeconomic stability (Sari, 2024). Although FDI has great potential in increasing productivity and export orientation, GDP can also reflect an economic capacity that can determine production surpluses (Ahmed and Mohsin, 2023). Inflation can also affect the competitiveness of a price through changes in relative prices and exchange rates (Dwi *et al.*, 2023). Real interest rates can affect capital flows and also the cost of capital or production in a country (Nguyen, 2025). In previous studies, many focused on the relationship between variables and single country studies only, so they could not provide a comprehensive picture of the variables of FDI, GDP, inflation, and real interest rates that work together in regions with diverse economic characteristics, especially in the ASEAN-5 region (Nguyen, 2021). Therefore, this research is important to close and fill the literature gap by examining the influence of independent variables, namely FDI, GDP, inflation, and real interest rates on export variables in a panel manner over a long-term period of 1998-2023, so that it is expected to provide a stronger and more relevant empirical understanding of export dynamics in a developing country in ASEAN.

The main contribution of this study is to combine variables by integrating FDI, GDP, Inflation, and real interest rates simultaneously in a cross-country panel model, previous studies have focused too much on economic growth and trade openness without discussing the determinants of exports comprehensively in a model (Nguyen, 2021). This study also uses a long time period from 1998-2023. This allows for an analysis of the impact of global shocks that occurred, such as the Asian monetary crisis to the pandemic shock, so that there was a restructuring of FDI flows in ASIA, previous research has shown that the ASEAN region, especially developing countries in ASEAN, is a destination for global FDI despite the global slowdown, not only that, a combination of countries with various different characteristics such as manufacturing bases (Thailand, Malaysia), fast-growing countries (Vietnam), and commodity-based (Indonesia, and Brunei Darussalam) (Id, 2023).

Literature Review and Hypothesis Model

Export ASEAN-5

In the world of exports, a country cannot be separated from the discussion of Export-led growth (ELG), which is a strategy to encourage a country's exports to the global market which aims to increase economic growth in the country of origin. Research conducted by taking samples of Asia-Pacific countries provides results that export performance has a significant impact on a country's economic growth in the long term. This confirms that there is relevance between exports for developing countries (Sein and Sah, 2025). The definition of export performance is the ability of a company or country to take advantage of opportunities in the global market to export goods and services to other countries, this is measured based on export volume, export growth and market share (Beleska-Spasova, 2014). Previous research has highlighted that exports have a very central role which aims to increase productivity and also diversify products or industries in developing countries (Calheiros-Lobo, Vasconcelos Ferreira and Au-Yong-Oliveira, 2023). Previous research confirms that exports are the main driving force that must be utilized by developing countries that are preparing to become developed countries through industrialization, exports on the other hand not only function as a foreign exchange earner for a country but also as a means of technology transfer and increasing production efficiency, in the research journal it is proven that exports increase opportunities for developing countries to become developed countries by increasing GDP, this finding strengthens the ELG theory that increasing exports is one of the key factors for macroeconomic stability and the foundation for long-term growth of developing countries (Sein and Sah, 2025).

Foreign Direct Investment

Foreign Direct Investment or FDI is an investment activity carried out by an individual investor, institutional investor or a Multinational Company (MNCs) to a destination country with the hope of obtaining a profit on the investment they have made, these activities include greenfield, M&A (Merger and Acquisition) and so on, in other studies also defines that FDI is an investment activity that aims to obtain lasting interest or investment carried out by foreign entities that aim to have long-term control in a company and are usually long-term oriented (Islam and Beloucif, 2024). FDI itself is a very important concept in the international economy, especially for developing countries that are currently trying to increase their country's competitiveness in the global arena by utilizing FDI and also exports. Mundell in his theory said that international capital flows will be able to encourage the relocation of trade in goods and services between countries in the world, which will ultimately result in FDI replacing exports, in contrast to Hymer where he highlighted the ability of MNCs to overcome all barriers to entry into a country through M&A with domestic companies (Çoban *et al.*, 2020). If we discuss FDI then we must discuss the Technology Spillover Effect and also market expansion, where both are the two main mechanisms that explain FDI can provide a driving force for growth and competitiveness in a developing country, the spillover effect theory explains how the presence of foreign companies can affect innovation and also the productivity of domestic companies due to the transfer of technology and also knowledge of managerial practices from foreign companies to domestic companies, spillover itself is divided into two namely Horizontal spillover which occurs between companies with the same industry, Vertical spillover itself means involving supplier relationships with customers where domestic companies can learn through the supply chain. The market expansion theory itself discusses how a foreign company can influence the market structure, competition, and innovation behavior of domestic companies, in market expansion is often measured by the market share of foreign sales in total industry sales, which aims to estimate how much influence foreign companies have on domestic companies (Vujanović *et al.*, 2022). Not only that, FDI has an important role in driving economic growth in a country, based on neo-classical growth theory, it is emphasized that FDI contributes to increasing capital, technology and ultimately will have an impact on output in a country by strengthening its growth (Hidayah *et al.*, 2023). In theory, FDI is related to a theory, namely the Investment-Led Export Hypothesis, which states that FDI can encourage increased exports through technology transfer, efficiency, and global supply chain integration (Ahmed and Mohsin, 2023).

Gross Domestic Product

The main concept of Gross Domestic Product (GDP) is about the theory of aggregate demand and supply by explaining the influence of aggregate demand and aggregate supply can affect national output or often called Gross Domestic Product (GDP), Aggregate demand is the total demand for goods and services in a country and in a certain period, aggregate supply is the total output of goods and services in a period of time, an increase in aggregate demand and supply will encourage the growth of GDP itself, with economic growth or GDP there will be an

increase in production and competitiveness so that domestic products will be absorbed by the global market more competitively, on the other hand if GDP decreases it indicates the confidence of entrepreneurs and will later suppress the level of exports that occur in a country due to weakening production and demand in the country (Sigalingging *et al.*, 2024).

In previous research, it was stated that GDP is significantly positive with export variables, GDP itself is considered as one of the key determinants in export competitiveness because high GDP will reflect high or strong production capacity and demand from the domestic market, GDP becomes a strong driver for exports, proven in previous research that in the case study of developing countries in ASEAN, namely Vietnam, GDP has a significant influence on exports by using theories that support the research are the Trade Gravity Model theory and also the Regional Economic Integration Theory. In the trade gravity model which emphasizes the importance of economic size (GDP) and distance in determining the flow of global or inter-country trade, and the theory of economic integration highlights trade liberalization by reducing barriers aimed at encouraging free trade and more efficiency as a key factor(Le, 2025). The theory that underlies the relationship between GDP and exports is that GDP increases growth and production capacity related to a country's competitiveness so that the country can produce more production output, namely goods and services in a certain period of time, which can be used for export to the global market because there is excess production in the country, so it must be marketed to the global market to maintain price stability in the country(Nath, 2020).

Inflation

In the Purchasing Power Parity (PPP) theory, it is the main theory in international economics, which explains the relationship between inflation and the currency exchange rate in the country, according to this theory when a country experiences a higher increase in inflation than other countries, it causes the price of goods and services in the country to increase rapidly, in countries with higher inflation, the currency will experience depreciation or a decrease in the value of the currency, this results in the price of goods to be exported from the country will tend to be cheaper in the global or international market which ultimately will increase the competitiveness of exports in the country, in other words, the relationship between inflation and exports is significantly positively correlated, thus macroeconomic stability, especially in controlling inflation, is important to maintain the competitiveness of exports in the country(Shahriar *et al.*, 2024). Previous research has shown that inflation in one country will indirectly impact other countries, particularly in the context of exports. Price increases in the domestic market caused by inflation make exports more affordable and attractive to foreign consumers, especially when coupled with substitute goods or services for more expensive goods (Andersen *et al.*, 2023).

Real Interest Rate

Domestic interest rate fluctuations do not directly affect export decisions, as exporters rely more on internal funds than external financing, or because global demand for export commodities remains high despite interest rate changes. In the context of developing countries, export sensitivity to interest rates tends to be low due to financing structures that are less reliant on high-interest loans, as well as the dominance of primary commodity exports, which are more influenced by international prices and global demand. Therefore, monetary policy focused on controlling interest rates is not always effective as an instrument to stimulate exports, and export-boosting strategies should be directed towards strengthening competitiveness, production efficiency, and export product diversification (Kurs *et al.*, 2025). Research examining the influence of real interest rates on exports in developing ASEAN countries found that interest rates do not significantly impact exports. The theory of export supply and demand states that exports are influenced by exchange rate factors and international market demand. Changes in real interest rates have a greater impact on investment and domestic consumption. The theory of international interest rate parity states that rising real interest rates will lead to capital inflows, which can have an appreciation effect on the exchange rate. However, the effect on exports remains through the exchange rate channel and not directly through the effects of changes in real interest rates themselves. This confirms that real interest rates do not have an indirect effect on exports and are often statistically insignificant(Yuliadi *et al.*, 2024).

Data and Methods

Data

This study, entitled "The Macroeconomic Determinants of Export Performance: Evidence From ASEAN-5 (1998-2023)," employs a quantitative explanatory approach using secondary data collected from the World Bank (WDI) and International Monetary Fund (IMF) websites for the period 1998-2023. The sample countries are Indonesia, Malaysia, Vietnam, Thailand, and Brunei Darussalam, with the ASEAN population and sample countries being Indonesia, Malaysia, Vietnam, Thailand, and Brunei Darussalam.

This research study uses a panel data regression method, chosen because panel data itself can provide more data, thus increasing degrees of freedom. This method uses three regression models: the Common Effects Model (CEM), the Fixed Effects Model (FEM), and the Random Effects Model (REM), with the Fixed Effects Model (FEM) chosen.

This study aims to examine how macroeconomic variables can influence export performance in ASEAN-5 developing countries. The dependent variable used this time is Export (Log(EXP)), and the independent variables are Foreign Direct Investment (FDI), Gross Domestic Product (Log(GDP)), Inflation (INF), and Real Interest Rate (R). The following table will explain the definition of each variable and also the source of each data taken along with its unit.

This study uses primary variables sourced from reliable international data, namely the World Bank (World Development Indicators/WDI) and the International Monetary Fund (IMF). This study uses the dependent variable Log(EXP), which represents total exports of goods in a given time period. This data is taken from the World Bank (WDI) and is expressed in percentage units (%) reflecting the contribution of exports to a country's economy. The first independent variable is Foreign Direct Investment (FDI), which is defined as the inflow of foreign direct investment into a country. FDI data is also sourced from the World Bank (WDI) and is expressed in United States dollars (US\$), indicating how much foreign investment plays a role in driving domestic economic activity. Furthermore, the Log(GDP) variable is used to measure the total income generated through the production process of goods and services in an economic region during a given period, also expressed in United States dollars (US\$). This data is obtained from the World Bank (WDI) and serves as a primary indicator of economic growth. Another variable used is Inflation (INF), which describes the annual percentage change in the consumer price index. This data is sourced from the World Bank (WDI) and measured as a percentage (%), with the aim of capturing the influence of price stability on export activity. Finally, the Real Interest Rate (R) variable is defined as the inflation-adjusted interest rate on loans, as measured by the GDP deflator. Data for this variable are obtained from the World Bank (WDI) and the International Monetary Fund (IMF) and are expressed as a percentage (%). This variable is used to assess how monetary policy and financial market conditions can influence a country's investment and international trade decisions.

Model Specification

In this study, the model used refers to the classical export determination framework which is formulated as follows.

$$\text{LogEXP}_{it} = \alpha + \beta_1 \text{FDI}_{it} + \beta_2 \text{LogGDP}_{it} + \beta_3 \text{INF}_{it} + \beta_4 \text{R}_{it} + \varepsilon_{it} \quad (1)$$

This research model uses panel data covering five ASEAN countries, namely Indonesia, Malaysia, Vietnam, Thailand, and Brunei Darussalam, represented by the symbol (i), and with a time period of 1998 to 2023, symbolized by (t). The model represents a combination of countries and years, thus allowing a more comprehensive analysis of the dynamics of economic variables between countries and over time. (ε_{it}) is an error term that reflects the influence of other factors.

Based on the equation formula above, the dependent variable used in the equation is Export (Log(EXP)), and the independent variables are Foreign Direct Investment (FDI), Gross Domestic Product (Log(GDP)), Inflation (INF), and Real Interest Rate (R). The model is estimated using panel data regression using three approaches, namely the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM).

Results and Discussion

Results

In the regression estimation results, the Fixed Effect Model (FEM) was selected as the best model, based on the Chow Test and also the Hausman Test where the probability <0.05 or (p<0.05), for further discussion the panel data estimation results will be presented in table 1.

Table 1. Panel Data Econometric Model Estimation Results

Variable	CEM		FEM		REM	
	Coef	Prob	Coef	Prob	Coef	Prob
C	28.02034	26.72560	17.06185	0.0000	28.02034	0.0000
FDI	1.79E-11	0.0504	-1.25E-11	0.0540	1.79E-11	0.0025
LOG(GDP)	-0.215539	0.0638	1.078049	0.0000	-0.215539	0.0042
INFLASI	0.006906	0.7773	0.054973	0.0015	0.006906	0.6591
R	-0.018838	0.3081	-0.004082	0.7363	-0.018838	0.1129
R ²		0.082006		0.634932		0.082006
Adj R ²		0.052630		0.610795		0.052630
F-stat		2.791624		26.30563		2.791624
Prob F-stat		0.029149		0.000000		0.029149

Source: Printout Eviews 12

Table 2. Fem Regression Results

$$\begin{aligned}
 \log EXP_{it} = & 17.06185 - 1.25FDI_{it} + 1.078049 \log GDP_{it} \\
 & \quad \quad \quad (0.0540)^{***} \quad \quad (0.0000)^* \\
 & + 0.054973 INF_{it} - 0.004082 R_{it} + \varepsilon_{it} \\
 & \quad \quad \quad (0.0015)^{**} \quad \quad (0.7363)
 \end{aligned}$$

R²=0.634932; F-stat = 26.30563; Prob.F-stat = 0.000000

Keterangan: *koefisien signifikan pada α 0,01; ** koefisien signifikan pada α 0,005; ***koefisien signifikan pada α 0,1

Source: Printout Eviews 12

Table 3. Uji Chow

Effects Test	Statistic	d.f.	Prob.
Cross-section F	45.816115	(4,121)	0.0000

Source: Printout Eviews 12

Table 4. Uji Hausman

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	183.264459	4	0.0000

Source: Printout Eviews 12

Table 1. Panel Data Econometric Model Estimation Results, which shows the estimation results of the Fixed Effects Model (FEM), shows that the variables FDI, GDP, and Inflation have a significant influence on the Export (EXP) variable at the $\alpha = 0.05$ and 0.10 significance levels, with a t-statistic value greater than the t-table. Meanwhile, the Real Interest Rate (R) variable has a smaller t-statistic value than the t-table, thus not showing a significant influence on exports in ASEAN-5 developing countries. The coefficient of determination (R-squared) value of 0.634932 indicates that 63.49% of the variation in exports can be explained by the variables FDI, GDP, Inflation, and Real Interest Rate (R), while the remaining 36.51% is influenced by other factors outside the model.

The t-statistical test shows that the FDI variable has a negative and significant influence on exports at the $\alpha = 0.10$ level with a probability value of 0.0540. This shows that the increase in foreign direct investment flows does not necessarily improve export performance, but tends to decrease it, because most FDI in ASEAN-5 developing countries is still oriented towards the domestic market (market-seeking) rather than exports (export-oriented). The GDP variable has a positive and significant influence on exports at the $\alpha = 0.05$ level with a probability value of 0.0000, this shows that the higher the economic growth of a country, the greater the potential for increased exports that can occur through the expansion of national production capacity and increased industrial efficiency. The Inflation variable also has a positive and significant influence on exports at the $\alpha = 0.05$ level with a probability value of 0.0015, which means that inflation can provide a stimulus to exports by maintaining producer price stability and increasing the profitability of the foreign trade sector. The Real Interest Rate (R) variable has a negative but insignificant influence on exports with a probability value of 0.7363, this result indicates that changes in real interest rates have not been able to directly influence export activities, because most exporters in ASEAN-5 developing countries rely more on external financing or internal capital than domestic credit which is sensitive to interest rates.

Discussion

The results of this study provide the fact that Gross Domestic Product has a positive and significant impact on the level of exports in developing countries ASEAN-5, this finding says that if economic growth in a country increases it will cause the capacity of national production to become wider and stronger, can strengthen the competitiveness of domestic industries to the global market, and also encourage foreign trade activities so that they are not fixated on the domestic market alone. This finding is in line with the ELG theory which states that GDP is a key factor in increasing exports through productivity, innovation, and diversification in the industrial sector, previous empirical studies confirm that there is a two-way relationship between exports and economic growth where increased output will encourage international growth (Sein and Sah, 2025). In the ASEAN context, countries such as Vietnam and Thailand have successfully converted GDP growth into high-value-added exports, supported by strong industrialization policies and global supply chain integration. Furthermore, the inflation variable also showed a positive and significant impact on exports. These results indicate that controlled inflation does not always have a negative impact on the economy, but can support producer price stability, increase corporate profits, and maintain a balance between production costs and global demand. Previous empirical studies have shown that a moderate, long-term inflation rate creates macroeconomic stability, which is essential for improving the export competitiveness of ASEAN countries (Trinh and Nhan, 2023). This, consistent monetary policy and sound fiscal discipline are key factors helping ASEAN countries maintain inflation stability while strengthening the export sector.

Conversely, the estimation results show that FDI has a negative and significant impact on exports. This condition illustrates that the majority of foreign direct investment in the ASEAN region is still oriented towards the domestic sector (market-seeking) rather than export-oriented. This indicates that FDI flows in the ASEAN region tend to be directed towards the consumption and services sectors, rather than the export-oriented manufacturing sector. The lack of connectivity between foreign companies and local industries also results in a low spillover effect from FDI on export growth. In the context of Indonesia and Brunei, for example, foreign investment is predominantly absorbed in the energy and domestic consumption sectors, while its contribution to value-added exports remains limited (Khan and Islam, 2023). The real interest rate variable shows a negative but insignificant effect on exports. This result indicates that changes in real interest rates have not been able to provide a real impact on export performance in the ASEAN region, because most exporting companies rely on external financing or internal capital that is less affected by interest rate fluctuations because financial variables such as interest rates and monetary policy require a longer time to affect exports through real sector investment channels and real exchange rates, in the short term, the effect of interest rates can be reduced through flexible monetary policies and stable foreign exchange reserve management as implemented by Malaysia and Thailand (Nguyen *et al.*, 2023).

Overall, the results of this study strengthen the argument that export performance in the ASEAN region is more influenced by real factors such as economic growth and price stability than financial factors such as FDI flows and interest rates. Therefore, economic policies in the ASEAN region need to focus on increasing domestic production capacity, logistics efficiency, and restructuring foreign investment to be more export-oriented. Synergy between fiscal, monetary, and trade policies is a key element in strengthening ASEAN export competitiveness amidst increasingly competitive global economic dynamics.

Conclusion

The results of this study indicate that economic growth (GDP) and controlled inflation are the main factors that have a positive and significant influence on the exports of developing countries in the ASEAN-5 region. The growth of GDP reflects an increase in the capacity of national production, thereby expanding export competitiveness in the international market. This finding is in line with the Export-Led Growth (ELG) theory which states that economic growth and exports have a strong relationship simultaneously, and is proven by the discovery of a long-term relationship between the two where GDP contributes directly to the expansion and volume of international trade of a country (Sein and Sah, 2025). Therefore, increased economic growth in the ASEAN-5 region will indirectly strengthen external competitiveness and make exports a driver of long-term development. Inflation in this study has been shown to have a significant positive effect on exports. Controlled inflation plays a role in maintaining economic stability and the profitability of the industrial sector. This reinforces the fact that healthy inflation can maintain the purchasing power of producers and consumers and can promote a balance between global demand and export prices. Consistent inflation management under disciplined monetary policy has helped ASEAN countries maintain macroeconomic stability and keep export performance competitive amid global volatility (Trinh and Nhan, 2023). Therefore, inflation stability is a crucial factor supporting the sustainability of long-term export growth in the ASEAN region.

In contrast to FDI, foreign direct investment (FDI) flows were found to have a significant negative impact on exports. These results illustrate that most FDI entering the ASEAN region is not oriented towards increasing export

capacity, but rather is directed more towards the domestic consumption sector. This study states that foreign investment in ASEAN tends to be concentrated in non-tradable sectors such as energy and consumer services, so its effect on exports is relatively low (Khan and Islam, 2023). This condition emphasizes the need for more selective and strategic investment policies by policymakers, namely by encouraging foreign investment in export-oriented industrial sectors such as manufacturing, technology, and high-value-added products. Meanwhile, real interest rates were found to have a negative but insignificant effect on exports. This result suggests that interest rate fluctuations have not had a direct impact on export performance because exporters in the ASEAN region are relatively more dependent on external financing or equity compared to domestic bank financing. Previous research suggests that the effect of monetary policy on exports is generally only apparent in the long run, particularly when interest rates influence the exchange rate and real sector investment (Nguyen *et al.*, 2023).

Overall, the results of this study indicate that export performance in developing ASEAN-5 countries is more influenced by real factors such as GDP and inflation, compared to financial variables such as FDI and real interest rates. Based on this research, it can be concluded that the export performance of developing ASEAN countries can be strengthened by prioritizing policies aimed at boosting GDP growth while maintaining stable inflation rates. Furthermore, policy reforms regarding the direction of foreign investment are needed to focus on export-oriented sectors.

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