

DETERMINANTS OF FOREIGN DIRECT INVESTMENT IN D-8 COUNTRIES: THE ROLE OF THE CORRUPTION PERCEPTION INDEX (CPI) AS A MODERATING VARIABLE

Agitsna Alya Rizqa, Muhammad Ghafur Wibowo

UIN Sunan Kalijaga Yogyakarta

agitsnaarizqa@gmail.com , muhammad.wibowo@uin-suka.ac.id

Abstrak: Foreign investment is pivotal in mitigating inequality within a country, particularly regarding financial aspects. Corruption levels can affect foreign investment flows in multiple ways: it may either deter foreign direct investment by diminishing its appeal to investors or serve as a stimulus to boost such investments. This study enhances understanding by incorporating exports as an independent variable and the Corruption Perception Index (CPI) as a moderating variable, aiming to refine the relationship between economic growth, exchange rates, and exports in influencing foreign direct investment. The research employs panel data regression analysis and moderated regression analysis (MRA) across D-8 countries from 2017 to 2022. Findings indicate that exports significantly impact foreign direct investment, whereas economic growth and exchange rates do not. The CPI moderates the relationship between economic growth and exports on FDI, weakening it, but strengthens the link between exchange rates and FDI. Elevated economic growth and high export values imply that investors might resort to bribery to expand their global market share and enhance production processes to satisfy high demand. The stability of the exchange rate mirrors technological advancements, creating a corruption-free virtuous cycle that fosters increased investment.

Keyword: Foreign Direct Investment, Corruption, Moderation Effect

INTRODUCTION

International trade activities offer countries the opportunity to attract foreign investment flows, which can subsequently be utilized for economic growth and development in both developed and developing nations. In investing, investors have considerations in various factors that can benefit and pose a risk to their investment. Technological developments can penetrate financial boundaries between countries so that it helps the movement of capital for investors around the world, besides that foreign capital inflows are becoming more common for companies to increase the capital needed.

In the past, companies sourced their capital primarily through domestic loans. The limitations that occur make companies unable to develop their production with other sources of capital. The existence of foreign capital makes each company compete globally in increasing its capital. The determinants of foreign direct investment are not limited to microeconomic aspects, but there are macroeconomic factors in influencing foreign capital inflows (Ghazi, 2021).

Foreign investment helps reduce inequality in a country, because incoming foreign investment not only helps in the financial aspect but also the transfer of

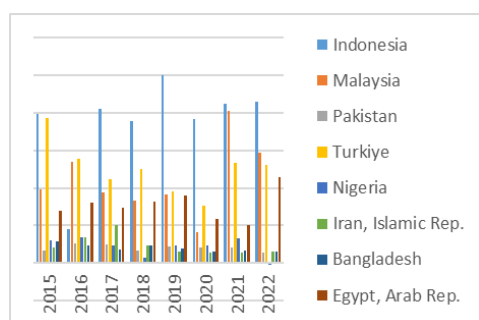
knowledge and technology (Sasana & Fathoni, 2019). Foreign investment inflows support increased efficiency with more sophisticated products, and can create a better production environment in companies. Every country has an interest in developing its country in various ways including through foreign investment. The number of foreign investors who want to invest makes countries must have their own different methods and characteristics in order to attract foreign capital inflows (Ghazi, 2021).

The Developing-8, commonly referred to as the D-8 countries, is an economic cooperation organization established with the objective of enhancing the global economies of its member states. The D-8 organization aims to create various opportunities in trade, increase participation in international decision-making processes, and elevate living standards. The idea for this cooperative organization, which is mainly comprised of countries with predominantly Muslim populations, was initially introduced by Prof. Necmettin Erbakan and was formally established at the Summit of Heads of State on June 15, 1997 (D-8 Organization for Economic Cooperation, 2023). The flow of foreign direct investment (FDI) to D-8 member countries has varied over the years, reflecting its status as a developing bloc that attracts investor interest.

FDI in all eight countries tended to increase from 2010 to 2014, but experienced a drastic spike in 2015 and 2016 in some countries. The drastic surge in global FDI was due to the continuous weakening of global economic growth, sluggish increase in trade volume, and declining profits of some multinational companies. Global economic vulnerabilities also impacted FDI in D-8 countries. The combination of sluggish economic growth and falling commodity prices hindered FDI inflows into developing nations. In 2016, FDI declined by 20% in developing countries across Asia and Latin America, while it rose by 38% in transition economies (UNCTAD, 2017). This means that the economies of developing countries tend to give the same pattern in responding to global economic conditions, where FDI will decrease if the global economy is sluggish. This can be seen again in 2020, where the decline in FDI in D-8 countries occurred due to the pandemic, which then in the following years member countries continued to restore the inflow of foreign capital to their countries.

Foreign investment can be influenced by macroeconomic factors of the receiving country such as economic growth, exchange rates, and exports. A rise in a country's economic growth signifies an expansion in market size, which enhances its appeal as a sales base. Nations with high and stable Gross Domestic Product (GDP) levels are better positioned to attract foreign investment aimed at broadening their target markets (Pratiwi, 2022). Exchange rate movements significantly affect the flow of incoming foreign capital, but the impact depends on the investment motives invested by investors. If a company's investment focuses on production costs, a depreciation of the exchange rate in the host country will likely boost FDI. Conversely, if the investment is directed

Figure 1. Foreign Direct Investment (FDI) in D-8 Countries 2015-2022



Source: World Bank 2023

towards expanding market size, a depreciating exchange rate will tend to diminish FDI inflows (Sasana & Fathoni, 2019). Exports can be an attraction for foreign investors in investing because a country has a fairly wide export market share. The market seeking motive of investors proposed by Dunning (1988) explains that investors pursue high market potential by facilitating the development of new technologies and products for consumers. FDI with this motive refers to market size, proximity to regional markets, low production costs, infrastructure quality, supply chain, consumers, and government policies (Wei & Nguyen, 2020).

Investors who invest in a country not only pay attention to the macroeconomic factors of the recipient country, but also pay attention to the possible risks faced in the long run such as the level of corruption in the country. International Transparency ranks global corruption through the Corruption Perception Index. A lower ranking indicates a higher level of corruption in a country, and a lower score reflects a greater extent of corruption. The relationship between corruption and FDI inflows is inversely related; countries with elevated corruption levels tend to deter foreign investors from committing their capital (Kennedy, 2018). However, corruption does not always have a negative impact, because high corruption in a country can stimulate the flow of incoming FDI, so as to maximize the role of FDI inflows as a driver of the country's economy.

This study deepens previous research on the determinants of FDI with corruption behavior as a moderating variable. Lule & Karundeng (2020) discovered that GDP and exchange rates positively influence FDI, whereas interest rates negatively impact FDI. Inflation was found to have no effect on FDI. Additionally, the Corruption

Perception Index, when used as a moderating variable, does not influence the relationship between GDP, exchange rates, interest rates, and inflation with respect to FDI inflows. Degong et al. (2023) found that in the short run exchange rate, inflation, and corruption significantly affect FDI in a negative direction, while exports do not significantly affect FDI. Kim & An (2022) found that the relationship of e-government to FDI will be stronger when the recipient country is more corrupt. Khalid (2024) noted that countries with elevated levels of corruption may initially facilitate FDI.

Foreign Direct Investment (FDI) is affected by a range of macroeconomic factors specific to each country. This study seeks to analyze the determinants of FDI in D8 member countries from 2017 to 2022, incorporating the Corruption Perception Index as a moderating variable. The contribution of this research to previous research is to add export variables in the dependent variable as a research novelty. As a model development, this study also uses the Corruption Perception Index (CPI) variable as moderation between the independent variable and the dependent variable. This study uses D-8 countries as research objects because they are categorized as developing countries with similar economic development problems. The determinants of FDI inflows need to be tested further to maximize the potential of D-8 countries in encouraging foreign investment. D-8 governments can then make economic policies that are appropriate to the conditions of each country to help increase the effectiveness of GDP, exchange rates, and exports in attracting FDI.

Foreign Direct Investment (FDI)

Foreign direct investment (FDI) involves cross-border investments where

foreign investors have enduring interests that can substantially impact the economy of the host country. In addition to fostering international trade by providing access to foreign markets, FDI also serves as a conduit for technology transfer between nations, thereby contributing to economic development. (OECD iLibrary, 2023). The existence of FDI for developing countries is very important in order to obtain new technology, equipment, and expertise from the investor's home country due to the limited availability and quality of supporting factors in developing countries.

Hymer (1976) states that the existence of foreign direct investment is a result of market imperfections. Rugman (1986) in his internalization theory states that multinational corporations use FDI to reap the benefits of internal efficiency in the recipient country. According to Dunning (1988) eclectic theory, the ownership of output and the geographic distribution of output types necessitate the use of resources, capabilities, and institutions that are not universally available to all companies. According to this theory, investors in investing abroad need three advantages such as ownership, advantages, location advantages, and internalization advantages.

According to Lumbanraja (2006), the differential rate of return hypothesis in FDI theory posits that investors choose to allocate their capital to countries that can offer higher returns within a shorter timeframe. However, the diversification hypothesis states that investors also consider risk in investing such as risk averse, risk medium, and risk taker. The output and market size hypothesis explains that incoming FDI is related to company output, the size of the market is seen from the high GDP of the country (Sari & Baskara, 2018).

Economic Growth

The Accelerator Theory suggests that investment levels are driven by output growth, based on the assumption that firms can promptly adjust their capital stock, expectations remain static, and there are no delays in adjustment. If a firm wants an increase in demand for its products, it requires a larger capital stock. Investment will adjust to the change in expected output demand. This theory also indicates that investment is related to the development of Gross Domestic Product (GDP). An increase in GDP makes it necessary for investors to increase their investment in order to increase production for the increasing demand for consumer goods. A decrease in GDP makes it unnecessary for investors to increase their investment for company operations (Baddeley, 2003).

The Neo-Classical Theory by Dale Jorgenson says that investors who invest their capital to encourage the production process are based on the hope of getting profits in the future. Investors are likely to consider investment opportunities if the returns from an additional unit of capital are at least equal to the cost of utilizing that unit of capital. An increase in economic growth, as indicated by Gross Domestic Product (GDP), leads to higher public consumption. This rise in public consumption drives a greater demand for goods and services, making it advantageous for investors to deploy additional capital to support their projects.

Exchange Rate

The exchange rate represents the amount of one currency that can be exchanged for another. The impact of the exchange rate on foreign direct investment depends on the specific investment goals of the investor. When investors aim for foreign markets, currency appreciation will reduce FDI, because high labor costs make

companies unable to compete which will further reduce company profits (Sari & Baskara, 2018). Countries with depreciating exchange rates are the choice of investors on the grounds that low production costs will increase competitiveness in international markets which will further increase corporate profits. An exchange rate depreciation makes the country's assets cheaper than the price in the investor's own country. A weakening exchange rate can increase foreign capital inflows, as investors take advantage of low prices on the international market. Relatively low prices make workers' wages and production costs of the recipient country also decrease, thus increasing the attractiveness of foreign investors to invest in more efficient production costs (Pratiwi, 2022). Furthermore, exchange rate depreciation can increase export potential because more goods produced more efficiently can meet the demand for goods in the international market, this is also a driving force in attracting foreign investors.

Export

The Flying Geese Model (FG Model) is based on FDI-led export growth and focuses on changes in factor prices and openness to international trade. The high competition in the international market makes foreign investors shift their investment preferences from high labor cost to low labor cost (labor intensive) economies to increase cost advantage. The steps taken by these investors are carried out in order to increase competitiveness in the international market which supports the increase in exports both in the company and in the recipient country (Leonov, 2024).

Investors invest in developing countries because they have a wide enough international market share to attract foreign investors. Foreign investors,

especially those in Europe, are interested in investing in developing countries, especially Asia, because they are considered export-oriented regions. Broad export coverage encourages foreign investment in a country because it has a wide range of export destinations and has significant economic development.

Corruption Perception Index (CPI)

The Corruption Perception Index (CPI) is a measure that assesses the perceived extent of corruption in the public sector. It is based on evaluations from businesses and experts concerning the government's performance, especially in delivering services free from corruption. The CPI is rated on a scale from 0 to 100, with scores nearer to 100 reflecting a lower level of corruption and indicating a more transparent government. Conversely, a score nearer to 0 reflects a higher prevalence of corruption within the country. Additionally, the CPI ranks the 180 countries included in the index according to their levels of perceived corruption (Transparency International, 2023). A high level of corruption in a country hampers the growth rate of income and wealth, leading to increased income inequality. According to Mauro (1997) corruption negatively affects economic growth rates and impedes investment flows. Consequently, corruption disrupts both investment and economic growth. Leff (1964) and Huntington (1968) said that not all consequences of corruption have a negative impact on the economy. Corruption in the nature of speed money can have a good impact, because bribes make companies avoid bureaucratic delays and make company affairs run more smoothly according to plan. Corruption can serve as an obstructive force that increases the costs for foreign investors, including officials' commissions benefiting the

company. Conversely, corruption can also function as a facilitating force by easing commercial activities amidst a burdensome legal and regulatory environment (Bardhan, 1997).

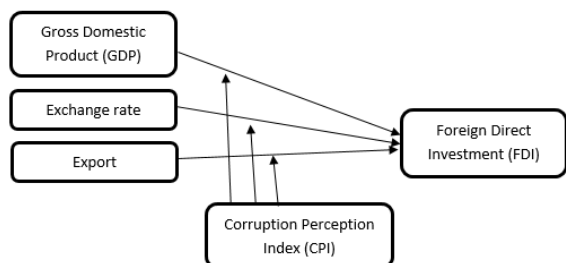


Figure 2. Framework of Thought

RESEARCH METHODOLOGY

This study employs a quantitative research approach using secondary data. The data, which is sourced and processed from the World Bank and Transparency International, includes Foreign Direct Investment (FDI), Gross Domestic Product (GDP), exchange rates, and exports from the World Bank, and the Corruption Perception Index (CPI) score from Transparency International. The object of this research consists of Developing-8 countries, namely Indonesia, Malaysia, Pakistan, Nigeria, Bangladesh, Turkey, Iran, and Egypt. The research population is data on GDP, exchange rates, exports, CPI, and FDI in developing countries. The sample of this research is GDP, exchange rates, exports, CPI, and FDI in D-8 countries. The research period tested is annual data from 2017 to 2022 with a total of 48 observations. Panel data regression analysis was conducted to evaluate the effect of the independent variables on the dependent variable. Subsequently, Moderated Regression Analysis (MRA) was used to assess how the moderating variable influences the relationship between the independent and dependent variables. The econometric results were obtained using the Eviews 10 software.

This study employs panel regression analysis to examine the impact of GDP, exchange rates, and exports on FDI, and applies Moderated Regression Analysis (MRA) to test the moderating effects on the relationship, aiming to enhance the influence of the independent variables on the dependent variable. The model equation utilized in this study is as follows:

$$FDI = \alpha + \beta_1 GDP + \beta_2 ER + \beta_3 EXP + \epsilon_{it} \dots (1)$$

$$FDI = \alpha + \beta_1 GDP + \beta_2 ER + \beta_3 EXP + \beta_4 CPI + \beta_1 (GDP * CPI) + \beta_2 (ER * CPI) + \beta_3 (EXP * CPI) + \epsilon_{it} \dots (2)$$

FDI	= Foreign Direct Investment
α	= constanta
β	= regression coefficient
GDP	= Gross Domestic Product (GDP)
ER	= Exchange Rate
EXP	= Export
GDP *CPI	= Interaction of GDP and CPI
ER*CPI	= Interaction of Exchange rate and CPI
EXP*CPI	= Interaction of Export and CPI
ϵ_{it}	= Error

RESULT AND DISCUSSION

Table 1. Descriptive Statistics

	FDI	PDB	ER	EXP	CPI
Mean	7.36E+09	5.50E+11	6901.930	1.26E+11	33.35
Median	4.54E+09	4.40E+11	98.60031	7.68E+10	32.00
Maximum	2.50E+10	1.19E+12	42000.00	3.10E+11	53.00
Minimum	-1.87E+08	2.23E+11	3.648133	2.89E+10	24.00
Std.Dev.	6.91E+09	2.99E+11	13655.36	9.20E+10	7.88

Source: Data processed, 2023

Table 1 presents the descriptive statistics for a dataset comprising 48 observations. It includes the mean, median, maximum value, minimum value, and standard deviation for each variable—Foreign Direct Investment (FDI), Gross Domestic Product (GDP), exchange rate, exports, and Corruption Perception Index (CPI)—for D-8 countries from 2017 to 2022 using annual data. The FDI variable has an average value of 7.36E+09, with a maximum of 2.50E+10 and a minimum of -1.87E+08. The standard deviation for FDI is 6.91E+09, which is lower than the average, indicating a normal distribution of the data.

The GDP variable has an average value of 5.50E+11, with a maximum of 1.19E+12 and a minimum of 2.23E+11. Its standard deviation is 2.99E+11, which is lower than the average GDP, suggesting a normal data distribution. The exchange rate variable has an average value of 6,901.9, with a maximum of 42,000 and a

minimum of 3,648. The standard deviation for the exchange rate is 13,655.3, exceeding the average exchange rate, which indicates an abnormal data distribution. The export variable averages 1.26E+11, with a maximum of 3.10E+11 and a minimum of 2.89E+10. Its standard deviation is 9.20E+10, which is lower than

the average exports, reflecting a normal distribution. The CPI variable has an average value of 33.35, ranging from a minimum of 24 to a maximum of 53. The standard deviation of the CPI is 7.83, which is lower than the average CPI, indicating a normal distribution.

Model Selection Test

Determining the most suitable panel data regression model requires evaluating three methods: the Chow test, the Hausman test, and the Lagrange Multiplier (LM) test. The results from the model selection process used in this study are presented below.

Table 2. Chow Test

Effect Text	Statistic	d.f.	Prob.
Cross-section F	13.235872	(7,36)	0.00
Cross-section Chi-square	61.132089	7	0.00

Source: Data processed, 2023

According to the results of the Chow test shown in Table 2, the Cross-section Chi-square value is 0.00, which is below the significance threshold of 0.05. This implies that H0 is rejected, indicating that the

Fixed Effect Model (FEM) is the model chosen by the Chow test. Therefore, the analysis can move forward to the subsequent evaluation, namely the Hausman test.

Table 3. Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob
Cross-section random	5.338725	4	0.2543

Source: Data processed, 2023

According to the Hausman test results presented in Table 3, the cross-section random value is 0.25, exceeding the significance level of 0.05. This indicates that H1 is rejected, suggesting that the

Random Effect Model (REM) is the suitable model identified by the Hausman test. Consequently, the analysis can advance to the Lagrange Multiplier (LM) test.

Table 4. Lagrange Multiplier (LM)

Null (no rand, effect)	Cross-section	Period	Both
Alternative	One-sided	One-sided	
Breusch-Pagan	17.44749 (0.0000)	0.405029 (0.5245)	17.85251 (0.0000)

Source: Data processed, 2023

Based on the Lagrange Multiplier (LM) test results shown in Table 4, the Breusch-Pagan value is 0.00, which is below the

significance level of 0.05. This implies that the Random Effect Model (REM) is the suitable model chosen for this study.

Table 5. Random Effect Model (REM)

Variable	Coefficient	Std.Error	t-Statistic	prob
C	-1.68E+09	5.86E+09	-0.286556	0.7758
X1	0.003705	0.006117	0.605688	0.5479
X2	-29534.31	103920.6	-0.284201	0.7776
X3	0.051946	0.019193	2.706456	0.0097
CPI	20640596	1.53E+08	0.135065	0.8932
Adj R-squared	0.291909			
Prob F-statistic	0.000758			

Source: Data processed, 2023

The panel data analysis using the Random Effect Model (REM) examines the impact of GDP, exchange rate, exports, and CPI on FDI in D-8 countries from 2017 to 2022. The results can be summarized as follows:

1. The constant term is 0.77, with a

coefficient of -1.68. When GDP, exchange rate, exports, and CPI are zero, the FDI amount is -1.68.

2. The probability value for GDP (X1) is 0.54, which exceeds the 0.05 significance threshold, indicating that GDP does not significantly affect

- FDI inflows in D-8 countries for the period 2017-2022. The coefficient for GDP is 0.003, suggesting that an increase of one unit in GDP leads to an increase of 0.003 in FDI, while a decrease of one unit in GDP results in a reduction of 0.003 in FDI.
3. The probability value for the exchange rate (X2) is 0.77, which is greater than 0.05, meaning that the exchange rate does not significantly impact FDI inflows in the D-8 countries during the period 2017-2022. The coefficient for the exchange rate is -29,534. This negative relationship implies that a one-unit increase in the exchange rate will decrease FDI by 29,534, whereas a one-unit decrease in the exchange rate will increase FDI by the same amount.
 4. The probability value for exports (X3) is 0.00, which is less than 0.05, indicating that exports significantly affect FDI inflows in D-8 countries for the period 2017-2022. The export coefficient is 0.051, meaning that a one-unit increase in exports leads to a 0.051 increase in FDI, while a one-unit decrease in exports results in a 0.051 decrease in FDI.
 5. The probability value for CPI (Moderation) is 0.89, which is greater than 0.05, signifying that the CPI variable does not have a significant effect on FDI inflows in the D-8 countries during 2017-2022. The CPI coefficient is 20,640, indicating that a one-unit increase in CPI corresponds to an increase in FDI of 20,640, and a one-unit decrease in CPI results in a decrease in FDI by the same amount.
 6. The F-statistic probability value of 0.00 is below 0.05, suggesting that GDP, exchange rate, exports, and CPI collectively influence FDI.
 7. The adjusted R-squared value is 0.2919, or 29.19%, indicating that 29.19% of the variation in FDI is explained by the GDP, exchange rate, export, and CPI variables, while the remaining 70.81% is attributed to other factors not included in this study.
- The findings indicated that GDP does not impact FDI inflows into D-8 countries. This outcome aligns with the research by Manan & Aisyah (2023) which also found no effect of economic growth on FDI. The impact of GDP growth on FDI is not immediate, as it tends to manifest over a longer period. This result contrasts with the findings of Putri et al. (2021) which suggest that GDP does influence FDI inflows, arguing that high economic growth reflects an expanding global market and presents significant investment opportunities.
- The results indicated that the exchange rate does not influence FDI inflows in D-8 countries, which contrasts with the findings of by Putri et al. (2021) who reported that the exchange rate has a negative and significant impact on foreign direct investment. The direction of the negative relationship in the results of this study indicates that an increase in the exchange rate in a country means that the currency depreciates (weakens) which causes domestic prices to rise. This price increase makes the cost of incoming FDI higher, thus reducing investor interest in investing. Conversely, a stronger exchange rate increases investor interest in investing. The price of domestic goods and services determined by the exchange rate makes investors pay attention to fluctuations in the currency movements of the investment destination country. Unstable and overly fluctuating exchange rate movements raise investors' doubts because they consider the uncertainty of

costs and expected rates of return. A stable exchange rate that moves under control makes it easier for investors to calculate the return on invested capital, meaning that the exchange rate movements in D-8 countries fluctuate too much so that investors' perceptions in determining investment decisions do not look at the state of the exchange rate, but through the level of exports.

The results of this study indicate that exports can affect the entry of FDI in D-8 countries, this result is not in line with Degong et al. (2023) that exports do not significantly affect exporter FDI, due to the inability of multinational companies to utilize the resources of the recipient country in increasing domestic market share, as well as lack of experience in the international market. The findings of this study align with those of Xiong & Sun (2021) who assert that the relationship between exports and FDI is complementary between developed and developing countries, as it is believed to stimulate more exports than investments from developed nations. This result is also supported by Rugman (1986) in

Moderated Regression Analysis (MRA) Test

Table 6. Moderated Regression Analysis (MRA)

Variable	Coefficient	Std.Error	t-Statistic	Prob
X1	245E+08	1.34E+08	1.829650	0.0739
X2	1.04E+08	1.69E+08	0.619235	0.5389
X3	68223333	1.48E+08	0.046114	0.9634
X1*CPI	0.000623	0.000627	0.994427	0.3255
X2*CPI	42496.31	11115.68	3.823097	0.0004
X3*CPI	0.001458	0.001656	0.880509	0.3834

Source: Data processed, 2023

Based on the results of Random Effect Model (REM) and Moderated Regression Analysis (MRA) testing, the equation used in this study can be formulated:

$$FDI = -1.68E+09 + 0.003705 PDB - 29534.31 NT + 0.051946 EX + 20640596$$

Internalization Theory which states that in order to achieve more profits and internal efficiency, foreign investors invest their capital by establishing multinational companies in the recipient country. The significant results on exports in this study indicate that the high value of exports illustrates the competitiveness of D-8 countries in the world market is high, thus attracting foreign investors to invest. High competitiveness supports investors' objectives in achieving greater profits by utilizing the market share opportunities of the destination country in the global market. Investors consider that developing countries are export-oriented countries including D-8 countries so that foreign investors can invest their capital either in the form of funding or establishing multinational companies by expecting a higher rate of return. In the Flying Geese Model (FG Model) theory, investors prefer to invest in countries with low labor costs (labor-intensive) in order to increase production cost advantages in international trade.

$$CPI + 0.000623 (PDB * CPI) + 42496.31 (NT * CPI) + 0.001458 (EX * CPI) + \epsilon it$$

Table 5 shows the results of CPI in moderating the relationship between GDP, exchange rate, and exports to FDI. The following are the results of the

Moderated Regression Analysis (MRA) test:

1. The probability value of the interaction between GDP and CPI indicated by X1M is $0.32 > 0.05$. These results show that the Corruption Perception Index (CPI) cannot moderate the GDP variable on FDI in D-8 countries for the 2017-2022 period.
2. The probability value of the interaction between the exchange rate and CPI shown by X2M is $0.00 < 0.05$. These results show that the Corruption Perception Index (CPI) can moderate the exchange rate variable on FDI in D-8 countries for the 2017-2022 period.
3. The probability value of the interaction between exports and CPI indicated by X3M is $0.38 > 0.05$. These results show that the Corruption Perception Index (CPI) cannot moderate the export variable on FDI in D-8 countries for the 2017-2022 period.

The results of this study state that the Corruption Perception Index (CPI) cannot moderate the relationship between GDP and exports on the entry of FDI, this result is different from the research of Lala (2021) which states that the CPI can moderate GDP and exports in influencing FDI. The level of corruption in a country with the aim of facilitating investor interests cannot strengthen the relationship between GDP and exports in influencing FDI inflows in D-8 countries. This is because corruption is considered an economic problem of the country that must be eroded and eliminated. High GDP and export values indicate that investors must make higher bribes, while the orientation of investors in seeking profits in developing countries is to minimize costs. Corruption is an obstacle to the

economy due to the diversion of resources to the interests of a group, therefore the presence of bribery weakens the relationship of GDP and exports in influencing FDI inflows. Governments in an effort to increase investment in D-8 countries need to enact strong corruption prevention policies to overcome losses to the country's economy and increase investor interest in investing.

The findings of this study reveal that the CPI can moderate the relationship between exchange rates and FDI inflows in D-8 countries. This outcome is consistent with Lule & Karundeng (2020) who found that the relationship between exchange rates and FDI inflows can be strengthened by the CPI level. Excessive government policies and institutional controls without cost transparency can create opportunities for certain parties to monopolize the economy. Control over the foreign exchange market allows certain groups access to cheap foreign currency, which can be sold on the black market for significant profit. Corruption influences FDI by restricting access to credit and foreign currency, leading to negative consequences such as resource diversion and tax evasion. In some countries, corruption is seen as a means for foreign entities to pursue their capital interests; by bribing certain groups, they can secure easier access and lower costs (Glüzmann et al., 2012).

Ramoni-Perazzi & Romero (2022) stated that the effects of exchange rate volatility are less pronounced in countries with high levels of corruption, while the impact of investment is more significant in these same countries. Exchange rate instability is not unusual in highly corrupt nations, as they have addressed previous errors through adjustments in the financial system. In such countries, corruption acts as a cost for safeguarding

against foreign exchange market reversals. This contrasts with countries that have stable economies and lower levels of corruption.

Quazi et al. (2014) and Khalid (2024) identified a U-shaped relationship between the level of corruption and investment. In their findings, corruption acts as an economic obstacle in countries with low to moderate levels of corruption, whereas in countries with high levels of corruption, it functions as a "helping hand."

Corrupt practices in developing countries such as the D-8 are used to facilitate investment in the early stages, but over time these corrupt practices will hinder economic growth and FDI due to improvements in the country's regulatory structure. The research findings suggest that the economic growth and export conditions in D-8 countries are still in the initial phase where corruption serves as a stimulus for FDI. This is attributed to the weak regulatory frameworks, bureaucratic hurdles, and inadequate formal infrastructure typical of developing countries. Increasing and improving the quality of governance and regulation can turn the impact of corruption into a barrier to foreign investment.

The volatile movement of FDI is due to the uncertain dependence of industry dynamics, such as business competition. Investors need a conducive country to invest in so that the exchange rate can impact FDI in a favorable way. Kurniasih et al. (2023) mentioned that Investors want to benefit from an increase in the income of their home currency, because it is considered more profitable to invest in a country with a stronger currency. Investors choose developing countries based on expectations of higher future profitability opportunities than in other industrialized countries. This investment

decision is influenced by the political and economic conditions of the host country, as unfavorable political circumstances may prevent the realization of anticipated investment opportunities. Investor confidence depends on good governance and compliance with the rule of law. The findings of this study illustrate this statement, where initially the D-8 exchange rate cannot affect FDI because fluctuating movements make it difficult for investors to read business opportunities. Low level of corruption where the cleaner the recipient country is from corruption, the more investors perceive that the country can provide higher profits due to exchange rate stability, legal certainty, smooth economic operations, and regulatory compliance. Countries with weak currencies will face greater challenges in attracting foreign investment due to higher risks than countries with strong currencies.

CONCLUSION

The data analysis results indicate that Gross Domestic Product (GDP) and Exchange Rates do not influence the inflow of Foreign Direct Investment (FDI). However, Exports have a positive impact on FDI in D-8 countries for the period 2017-2022. The high export values reflect the strong competitiveness of D-8 countries in the global market, thereby attracting foreign investors. This high level of competitiveness helps investors achieve greater profits by capitalizing on market share opportunities in the host country within the global market.

The results of the Moderated Regression Analysis (MRA) test found that the CPI cannot moderate GDP and Exports on FDI, while the CPI can moderate the relationship between Exchange Rate and FDI. High GDP and export values indicate that investors must

make higher bribes, while the orientation of investors in seeking profits in developing countries is to minimize costs. Foreign exchange market controls give some groups access to cheap foreign currency that can be traded on the black market at very high returns. Investors expect easy access and lower prices in their capital activities by bribing some groups.

Research Implications

These findings carry several important implications for economic policy and international investment strategies in D-8 countries. First, as exports have a positive effect on Foreign Direct Investment (FDI) inflows, D-8 countries should maintain and strengthen their competitiveness in the global market. This can be achieved by improving product quality, diversifying export commodities, and expanding access to international markets. Policies that support export growth could serve as a key driver to attract more foreign investment.

Second, although Gross Domestic Product (GDP) and exchange rates do not have a direct influence on FDI, governments should ensure economic stability to bolster investor confidence. Stability in foreign currency access and a supportive economic environment may reduce the likelihood of investors resorting to undesirable actions like bribery.

Third, the finding that the Consumer Price Index (CPI) can only moderate the relationship between exchange rates and FDI, and not for GDP or exports, indicates that efforts to stabilize inflation have varied effects depending on other economic variables involved. Therefore, price stability is also important to avoid being a barrier to attracting FDI.

Suggestions for Future Research

Future research is recommended to consider the following aspects:

1. **Incorporation of Additional Economic Variables:** Future studies could explore other variables such as interest rates, employment levels, infrastructure, and political stability to examine their effects on FDI. These variables may have direct or indirect relevance in the context of D-8 countries.
2. **Examining a Longer Time Period:** To gain a deeper understanding of the dynamics between macroeconomic variables and FDI, a long-term analysis could be conducted. This may help identify more accurate trends or patterns over time.
3. **Analysis of Institutional and Regulatory Roles:** Considering the role of domestic and international institutions and regulations in moderating FDI is another area with potential. Factors such as corruption, regulatory transparency, and ease of doing business can influence foreign investor decisions, especially in developing countries.
4. **Alternative Methodological Approaches:** Utilizing different analysis methods, such as panel analysis or dynamic econometric models, could help yield more robust results. These alternative approaches may offer additional insights into the relationships between variables and enrich the study's findings.

These suggestions aim to contribute to the development of a more comprehensive theory related to FDI in developing countries and support the formation of more targeted policies to attract foreign investment.

REFERENCES

- Baddeley, M. C. (2003). Accelerator theory. In *Investment* (pp. 47–56). Macmillan Education UK. https://doi.org/10.1007/978-1-4039-1864-2_4
- Bardhan, P. (1997). Corruption and Development: a Review of Issues. *Journal of Economic Literature*, *35*, 1320–1346. <https://www.jstor.org/stable/2729979>
- D-8 Organization for Economic Cooperation. (2023). *Brief History of D-8*. D-8 Organization for Economic Cooperation. <https://developing8-org.translate.google/about-d-8/brief-history-of-d-8/>
- Degong, P. M., Ullah, F., Ullah, R., & Arif, M. (2023). An empirical nexus between exchange rate and China's outward foreign direct investment: Implications for Pakistan under the China Pakistan economic corridor project. *The Quarterly Review of Economics and Finance*, *87*, 224–234. <https://doi.org/10.1016/j.qref.2020.12.001>
- Dunning, J. H. (1988). *Explaining International Production*. Unwin Hyman.
- Ghazi, M. (2021). The Determinant Of Foreign Direct Investment in Indonesia. *Jurnal Bisnis Dan Akuntansi*, *23*(2). <https://doi.org/doi.org/10.34208/jba.v23i2.1061>
- Glüzmann, P. A., Levy-Yeyati, E., & Sturzenegger, F. (2012). Exchange rate undervaluation and economic growth: Díaz Alejandro (1965) revisited. *Economics Letters*, *117*(3), 666–672. <https://doi.org/10.1016/j.econlet.2012.07.022>
- Huntington, S. (1968). *Political Order in Changing Societies*. Yale University Press.
- Hymer, S. (1976). The International Operations of National Firms: A Study of Direct Investment. *MIT Press*. <http://hdl.handle.net/1721.1/27375>
- Kennedy, P. S. (2018). The effect of corrupt behavior on the flow of foreign direct investment to Indonesia. *Asia Pasific Fraud Journal*, *3*(1), 153–162. <https://doi.org/10.21532/apfj.001.18.03.01.18>
- Khalid, A. M. (2024). Does Corruption Hinder Foreign Direct Investment and Growth in Asia and Beyond? The Grabbing Versus the Helping Hand Revisited. In *Corruption and Illegality in Asian Investment Arbitration*. (pp. 39–67). Springer. https://doi.org/10.1007/978-981-99-9303-1_2
- Kim, K., & An, J. (2022). Corruption as a Moderator in the Relationship between E-Government and Inward Foreign Direct Investment. *Sustainability*, *14*(9), 4995. <https://doi.org/10.3390/su14094995>
- Kurniasih, E. P., Islahiyah, D., Kurniawati, S., & Iqbal, I. (2023). Does Corruption Affect Foreign Direct Investment? Empirical Evidence from ASEAN Plus Three Countries. *Journal of Economics, Business, & Accountancy Ventura*, *26*(2), 167–179. <https://doi.org/10.14414/jebav.v26i2.3256>
- Lala, A. A. T. (2021). *Penentuan Investasi Asing Langsung di ASEAN dengan Korupsi sebagai Variabel Moderasi* [UIN Sunan Kalijaga Yogyakarta]. <http://digilib.uin-suka.ac.id/id/eprint/48441>
- Leff, N. H. (1964). Economic Development Through Bureaucratic Corruption. *American Behavioral Scientist*, *8*(3), 8–14. <https://doi.org/10.1177/000276426400800303>
- Leonov, D. M. (2024). China's Catch-up through the Lens of the Flying Geese Model. *Sinologi Rusia*, *2*(7). [https://doi.org/doi.org/10.24412/2949-1207-2024-2\(7\)-59-74](https://doi.org/doi.org/10.24412/2949-1207-2024-2(7)-59-74)

- Lule, B., & Karundeng, E. H. (2020). Faktor – Faktor yang Mempengaruhi Masuknya Foreign Direct Investment di Indonesia dengan Perilaku Korupsi sebagai Variabel Moderasi. *Klabat Accounting Review*, 1(2), 46. <https://doi.org/10.60090/kar.v1i2.476>. 46-66
- Lumbanraja, G. T. (2006). *Analisis Pengaruh Foreign Direct Investment Terhadap Nilai Tukar Rupiah* [Institut Pertanian Bogor]. <http://repository.ipb.ac.id/handle/123456789/47850>
- Manan, S. A., & Aisyah, S. (2023). Pengaruh Produk Domestik Bruto, Tingkat Suku Bunga, Inflasi, dan Pertumbuhan Ekonomi terhadap Foreign Direct Investment di Asean. *Ekonomis: Journal of Economics and Business*, 7(1), 159. <https://doi.org/10.33087/ekonomis.v7i1.764>
- Mauro, P. (1997). *The Effects of Corruption on Growth, Investment, and Government Expenditure: A Cross-Sectional Analysis in Corruption and the Global Economy* (K. A. Elliot (ed.)).
- OECD iLibrary. (2023). *Foreign direct investment (FDI)*. OECD iLibrary. https://www-oecd-ilibrary-org.translate.goog/finance-and-investment/foreign-direct-investment-fdi/indicator-group/english_9a523b18-en?_x_tr_sl=en&_x_tr_tl=id&_x_tr_hl=id&_x_tr_pto=tc
- Pratiwi, D. R. (2022). Analisis Faktor Determinasi Penanaman Modal Asing (PMA) Langsung di ASEAN. *Jurnal Budget: Isu Dan Masalah Keuangan Negara*, 5(1), 47–66. <https://doi.org/10.22212/jbudget.v5i1.38>
- Putri, N. K., Komara, K., & Setyowati, T. (2021). Pengaruh Nilai Tukar, Pertumbuhan Ekonomi, Inflasi, dan Suku Bunga terhadap Investasi Asing Langsung di Indonesia. *JKBM (JURNAL KONSEP BISNIS DAN MANAJEMEN)*, 8(1), 11–25. <https://doi.org/10.31289/jkbm.v8i1.5422>
- Quazi, R., Vemuri, V., & Soliman, M. (2014). Impact of Corruption on Foreign Direct Investment in Africa. *International Business Research*, 7(4). <https://doi.org/10.5539/ibr.v7n4p1>
- Ramoni-Perazzi, J., & Romero, H. (2022). Exchange rate volatility, corruption, and economic growth. *Heliyon*, 8(12), e12328. <https://doi.org/10.1016/j.heliyon.2022.e12328>
- Rugman, A. M. (1986). Ner Theories of The Multinational Enterprise: An Assessment on INternalization Theory. *Bulletin of Economic Research*, 38(2), 101–118. <https://doi.org/10.1111/j.1467-8586.1986.tb00208.x>
- Sari, G. A. A. R. M., & Baskara, I. G. K. (2018). Pengaruh Pertumbuhan Ekonomi, Suku Bunga, dan Nilai Tukar terhadap Investasi Asing Langsung di Indonesia. *E-Jurnal Manajemen Universitas Udayana*, 7(7), 3974. <https://doi.org/10.24843/EJMUNUD.2018.v07.i07.p20>
- Sasana, H., & Fathoni, S. (2019). Determinant of Foreign Direct Investment Inflows in Asean Countries. *JEJAK*, 12(2), 253–266. <https://doi.org/10.15294/jejak.v12i2.18785>
- Transparency International. (2023). *Corruption Perceptions Index*. Transparency International. <https://www.transparency.org/en/cpi>
- UNCTAD. (2017). *Global foreign direct investment fell 13% in 2016, but modest recovery expected in 2017 - new figures*. https://unctad-org.translate.goog/news/global-foreign-direct-investment-fell-13-2016-modest-recovery-expected-2017-newfigures?_x_tr_sl=en&_x_tr_tl=id&_x_tr_hl=id&_x_tr_pto=tc

- Wei, Z., & Nguyen, Q. T. K. (2020). Local responsiveness strategy of foreign subsidiaries of Chinese multinationals: The impacts of relational-assets, market-seeking FDI, and host country institutional environments. *Asia Pacific Journal of Management*, 37(3), 661–692. <https://doi.org/10.1007/s10490-019-09655-3>
- Xiong, T., & Sun, H. (2021). Structure and dynamics of global capital and international trade: Analysis of the relationship between exports and foreign direct investment (FDI) from 2001 to 2006. *International Journal of Finance & Economics*, 26(1), 542–559. <https://doi.org/10.1002/ijfe.1803>