

# Do Corruption and Macroeconomics Variables Can Influence Foreign Direct Investment ?

## ( Case Study : Real and USD rate Currency)

Suci Alpika Fitri<sup>1</sup> and Dyah Tities Wardani<sup>2</sup>

<sup>1</sup>Suci Alpika Fitri : International Program for Islamic Economics and Finance, Department of Finance, Faculty of Economics and Business, Universitas Muhammadiyah Yogyakarta, Yogyakarta, Indonesia, 55183

<sup>2</sup>Dyah Tities Wardani : International Program for Islamic Economics and Finance, Department of Finance, Faculty of Economics and Business, Universitas Muhammadiyah Yogyakarta, Yogyakarta, Indonesia, 55183

Suci.alpika.feb17@mail.umy.ac.id; dyah.wardani@umy.ac.id

### ABSTRACT

Foreign direct investment is a key role important to encourage economics system for developed and developing countries. Foreign direct investment can show dynamic economics and it can build the good relationship with other countries, transfer of technology and knowledge. Higher the level of investment can improve the financial institution and economics activities. This study investigates the effect of control of corruption on foreign direct investment inflows (FDI) by using variables macroeconomics indicators, which include Corruption Perception Index (CPI), Political Stability (POL), Inflation (INF), Exchange Rate (EXR), Financial Development (FD). This study reveals that the significant factors control of corruption on foreign direct investment in the top 8<sup>th</sup> muslim countries (Malaysia, Saudi Arabia, UAE, Indonesia, Jordan, Bahrain, and Qatar). Using data from United National Conference Trade and Development (UNCTAD), World Bank and IMF (International Monetary Fund) cover the time period in 2015-2019. This study uses the least dummy variables square (LDVS) regression panel data analysis and finds that the effect of corruption on FDI is significantly negative by using real exchange rate currency and the positive effect by using domestic exchange rate (USD). Furthermore, the result of this study gives more knowledge of the control of corruption on FDI dynamics in top 8<sup>th</sup> muslim countries.

**Keywords :** FDI inflows, control of corruption, real and USD rate currency, macroeconomics variables

### Introduction

Investment is one of the last components in macroeconomics perspective that become the balance indicator for the internal of market production. In the other hand, investment has reflected the complicated business world. In the international relationship context, investment always become the main topic to discuss by the head of state in the world. It becomes the benchmark of success for bilateral and multilateral relationship in many countries and it is more important to know that investment can be propulsion machine for economics growth in the world.

According to the global Islamic economics investment (2020-2021) said that caused the impact of pandemic in 2019/2020, the total of the Islamic

economics investment fell by 13% in 2019/2020 to 11,8 billion from 13,6 billion in 2018/2019. Furthermore, in the Islamic investment activity, there are some Islamic investment indicators, such as Halal Food, Modest Fashion, Islamic Finance, Muslim Friendly Travel, Pharma & Cosmetics and Media & Recreation.

Islam is a rahmat alil' alamin religion that has been keep all of the human life aspect, start from tauhid and muamalah, such as political, social, culture, and economics that include investment. It also has been keep how is the role of investment. As the best religion, Islam also look that how the potential of the investment can increase human life and the investment can improve future life. The concept of investment has been explained in Al-qur'an Yusuf verse 47-48,

قَالِ يَا أَيُّهَا النَّبِيُّ إِنَّا أَرْسَلْنَاكَ قَبْلَكَ فِي الْقُرْآنِ كَذِبًا وَأَنَّكَ أَنتَ السَّادِقُ وَرَأَيْتَ أَنَّكَ إِذَا مَدَدْتَ يَدَيْكَ إِلَى الْوَيْدِ أَخَذَهَا فَغُلَّتْ عَلَيْكَ فَكُلْ وَخَمَرْ وَلَا تَبْسُطْ يَدَيْكَ إِلَى الْوَيْدِ وَأَنْتَ بَصِيرٌ

(47) تَأْكُلُونَ مِمَّا

تُحْصِنُونَ مِمَّا قَلِيلًا إِلَّا قَلِيلًا إِلَّا قَدَّمْتُمْ مَا يَأْكُلْنَ شِدَادًا سَبْعَ ذُكُورٍ بَعْدَ مَن يَأْتِي ثُمَّ (48)

Allah SWT mentioned that "Yusuf (PBUH) said : for seven consecutive years, you shall sow as usual and that (the harvest) which you reap you shall leave in ears, (all) – except a little of it which you may eat. Then will come after that, seven hard (years), which will devour what you have lead by in advance for them, (all) except a little of that which you have garde, (stored)". (Al-Qura'an verse 47-48).

Based on the ayah, Allah SWT explained that the investment is more important. The investment give more benefits, not only from the short run but also for the long run. It can take the best life until the next generation. There are two kinds of investment including domestic and foreign direct investment. Foreign direct investment (FDI) is very important for economics development. Not only for macroeconomics but also for microeconomics development. Foreign direct investment is a key important rule of the macroeconomics indicator that can increase economics growth. United Nation Conference Trade and Development (UNCTAD) is based on the definition by Organization Economic Cooperation Development (OECD) and International Monetary Fund (IMF) found that the definition of Foreign Direct Investment (FDI) constitute a long-term engagement of foreigners who

makes investment in fixed asset on purpose of establishing a production capacity to makes goods or produce services for sale at the profits. In this regard, FDI implies that the investors exerts a significant degree of influence on the management of the resident in the other economy. The most important, FDI considered responsible welfare increase in the host country. (UNCTAD, 2006; Heri, 2008). Foreign Direct Investment (FDI) a plays vital role in the economic growth and development of country (Choe; 2003, Li and Liu; 2005).

In additionnally, According to the World Bank (2012) mentioned that foreign direct investment (FDI) plays an important rule in the economic growth of developing countries. FDI can fill at least three point “developing gap” first, the investment gap; second, foreign exchange gap ; tax revenue gap. The investment gap by providing capital for investment, boost global maret access for export commodation., the exchange rate gap by providing through investment and export earnigs, and the last the the tax revenue gap by providing through economics activities. FDI can also generate domestic investment in matching funds, facilitate transfer of technology and managerial skills, increase local market competition, create job modern opportunities, etc.

Nawal and Raman (2015) in their research with the topic “Determinants of FDI and its Impact on BRICS Countries: A Panel Data Approach” argued that foreign direct investment has become an important phrameters of economics in both develop and developing countries. Foreign Direct Invetsment can influence the income, price, production, employment, development, economics growth and general welfear of the recipient countries. additionally, The benefit of FDI can be in the form of knowledge and technology spill over’s, employment generation and enterprise development. According to UNCTAD (2014) found that foreign direct investment increased by 9 per cent to 1.45 trillion in 2013. The global FDI increased at 9%, reaching 25.5 trillion. Based on UNCTAD project said that the global FDI could rise at 1.6 trillion in 2014,1.75 trillion in 2015 and 1,85 trillion in 2016. FDI inflows increased in all major economics groupings : develop, developing and transtition countries.

According to Romer, 1990; Mankiw et al., (1992) said that the theoretical literature identified that FDI has been contributed to economics growth. Based on the viewpoint of the theory neoclassical growth of FDI inflows increase the stock of capital inflows in the host countries thereby allowing higher rates of than would be possible from reliance on domestic savings. In the other hand, Blonigen (2005) mentioned that FDI can enhance growth by allowing host countries access to advanced technology not available domestically. Moreover, based on UNCTAD (1999) explained that FDI leads to increased competition in the domestic market which can cause greater efficiency domestic firms and FDI also has the potential to expands access to export markets. (Freckleton, Wright, Craighwell, 2012).

**Table 1.1**

Foreign Direct Investment for The Top 8<sup>th</sup> Moslem Countries

Countries	The Value of FDI Cover The Period 2015-2019				
	2015	2016	2017	2018	2019
Malaysia	10082	11336	9399	7618	7650
Saudi Arabia	8141	7453	1419	4247	4562
UAE	8551	9605	10354	10385	13787
Indonesia	16641	3921	20579	20563	23429
Jordan	1600	1553	2030	955	10916
Bahrain	65	243	1426	1654	942
Kuwait	311	419	348	204	104
Qatar	1071	774	986	-2186	-2813

Source : (United Nation Cooperation Trade and Development, 2020)

Based on the table showed that Indonesia has become the highest FDI for the top ten moeslim countries categories in 2019. In the second level is UAE and the last is Qatar. FDI is very important to be a strong foundation for the government in the country to increase the role of law and regulation that relate to increase the level of FDI. FDI is one of the most importan element for the economics system of the country. Not only increasing the competitiveness in the many economics activities, but also as the superior capital flow than others such as the portfolio. On the other hand, FDI has the role important to maintain the companies that have the branch in the abroad. FDI can give another different impact for social and political system in the country. In the same time, the amount of FDI in the one country on another countries is different type. This condition is based on the investor that choose to join in the international business in a country. (Asetia Puti Andini ; 2018, Ashabul Anhar ; 2020).

corruption on foreign direct investment. The influence of corruption on foreign direct investment depend on the characteristic of the economics system of in the host countries. Mostly, in this research, he found that a negative influence between coruption on foreign direct investment.

In the other side, he argued that separating corruption into two types, pervasive and arbitrary, may provide further insights into the relationship between

According to Transparency International (2017) mentioned that corruption is a worldwide problem. There is no country free from corruption in the world. Corruption can influence in the role of government. It also effect standar of living by causing a loss of economics resource, It reduce incentive to works, it allow people to be less productive, and it can increase the cost of doing business for investors. Corruption can be divided into two main types : political and burearactic. (Kasasbeh, Mdanat and Khasawneh, 2018). Additionally, based on Bayer and Ozei, (2014).) said that corruption is a serious economic, social, political, and moral blight, particularly in many emerging countries. It is a problem that affects companies, particularly in international commerce, finance, and technology transfer. It is becoming an international phenomenon in scope, substance, and consequences. There are two theory of corruption. First “Grabbing-hand” supported by economists such as <sup>1</sup>. Second “Helping-Hand” supported by by economists such as Lui (1985), Beck and Maker (1986), and Saha (2001). The history of corruption has documented by Noonan (1984). It is about four millennia the history of bribes and corruption in many culture, one of them are Confucius emphasized the necessity of ethical behavior to address corruption in ancient China.

Many studies argue that corruption can give a negative impact for all of economics activities including global and domestic economics asystem. Corruption also influence on foreign direct investment system. According to Alvaro (2006) has been conducted the research about the influence of corruption and FDI. In another analysed, by Bayar and Alakbarov (2016), they concluded that the control of corruption and the role of law had no satisfiscally significant impact on attract of foreign direct investment in overall panel, by using 23 market economies during the period (2002-2014). Additionally, Sequeira (2012) explained that corruption hinders growth and prosperity by distorshing business activity and reduce investment. (Hakimi and Hamdi, 2017). According to Campos and Lien (1999.P.1065) said that corruption can reduce the ratio of domestic and foreign gross investment to GDP.

**Tabel 1.2**

Index of Curruption Perception Score in The Top Ten Muslim Countries

Country	The Score of Corruption Perception Index				
	2015	2016	2017	2018	2019
Malaysia	50	49	47	47	62
Saudi Arabia	52	46	49	49	62
United Emirates Arab	70	66	71	71	83
Indonesia	36	37	37	38	38
Jordan	53	48	48	49	63
Bahrain	51	43	36	36	58
Kuwait	49	41	39	41	50
Qatar	71	61	63	62	79

Source : (The World Bank, 2020)

Based on the table can be seen that the different score of corruption in the top ten muslim countries. Each

country has a fluctuative of weakness and upward for the level of corruption in every year. In the level of corruption chategory show that the value of corruption for the country. According to Corruption Perception Index and Transparency International (2020) mentioned that the construct of the level of corruption uses information from 13 data source where if the country is given a score between 0-100. Zero indicates a country perceived to be highly corruption and 100 means the country is to be clear from corruption. Based on the table show that Iran is the highest corrupt country and the UAE is a less corrupt country in the top ten muslim countries cover the period 2015-2019. It has been described based on the ranked of Corruption Perception Index (CPI) in the year 2020.

**Table.1.3**

The Table of The Ranked of Corruption in The Top Ten Muslim Countries

No	Country	The Ranked of Corruption
1	Malaysia	57 <sup>th</sup>
2	Saudi Arabia	52 <sup>th</sup>
3	United Arab Emirate	21 <sup>th</sup>
4	Indonesia	102 <sup>th</sup>
5	Jordan	60 <sup>th</sup>
6	Bahrain	78 <sup>th</sup>
7	Kuwait	78 <sup>th</sup>
8	Pakistan	124 <sup>th</sup>
9	Iran	149 <sup>th</sup>
10	Qatar	30 <sup>th</sup>

Source : (Corruption Perception Index, 2020)

Since 1995, the corruption perception index is annually published with a list of more than 150 countries rated by expert assesments and opinion survey. According to transparency international corruption perception index in 2020, the ranked of United Arab Emirate in the 21<sup>th</sup> spot out of 186 countries. It up seven place from 28<sup>th</sup> spot in 2010. Furthermore, according to the doing business report 2011 published by the world bank and international finance corporation, the United Arab Emirate was ranked 37<sup>th</sup> place up from 40<sup>th</sup> business in a field of 183 countries. The UAE has an open economy with a high percapita income and a sizeble annual trade surplus. Oil and gas account for about 3.0 percent percapita. According to the table mentioned that the UAE is the least corrupt countries and Iran is the higher corrupt countries in the top ten muslim countries

. There are some indicators that influence the UAE has become the least corrupt countries. Rule of law give more influence it, including property right are predictable and fair although each emirate establishes its own procedures for land ownership. The judicial effectiveness is not independent and court rollings are subject to review by the political leadership. Government Size also can attract the ranked of corruption in the UAE, such as Tax Burden, the overall tax burden equals 0.1 percent of total domestic income. Government spending has amounted to 30.0 percent of total output (GDP) and budget deficit have averaged 0.3 percent of GDP. (2021 index of Economics Freedom).

Additionally, according to the table of the ranked of corruption for the top 8<sup>th</sup> muslim countries, Iran is the

highest corrupt countries. There are some indicators that influence it such as property right are recognized under Iran's civil code. The judicial system is not independent of the supreme leader and is used routinely to silence critics and charge political opponents with economic crimes. Government size also can attract the rank of corruption in Iran, including Tax Burden, the average of tax burden equals 8.4 percent of total domestic income. Government spending has amounted to 18.1 percent of total output (GDP) and budget deficit have averaged 31 percent of GDP.

openness to measure the 10 components of the economic freedom index that it can give influence of control of corruption on foreign direct investment inflows in the country. (Economic Freedom Index, 2020)

**Table. 1.4**

The Table of Economic Freedom For The Top 8<sup>th</sup> Muslim Countries

Country	The Ranked of Economic Freedom	Population (Million)	Unemployment (%)	Rule of Law			Government Size			Regulatory Efficiency		
				PR	JE	GI	TB	GS	FH	BF	LF	MF
Malaysia	74.4	31.9 M	3.3	85.1	70.5	53.2	83.8	84.3	79.4	86.7	73.9	83.6
Saudi Arabia	66.0	34.3 M	5.9	68.7	76.7	53.2	99.1	62.9	31.0	83.5	63.3	82.3
UAE	14	66.0 M	2.4	80.8	81.1	66.0	100	73.0	98.5	80.0	81.6	80.6
Indonesia	66.9	270.6 M	4.7	59.4	48.9	39.1	83.7	91.8	90.7	71.3	49.3	79.0
Jordan	64.6	10.1 M	14.7	66.2	60.3	51.6	84.7	73.3	45.5	58.9	52.8	82.0
Bahrain	69.9	1.6 M	0.7	71.5	65.8	64.8	100	67.1	0.0	76.7	71.4	82.8
Kuwait	64.1	42 M	2.2	57.4	52.6	47.5	97.7	21.4	99.7	66.0	62.2	75.6
Pakistan	51.7	216.6 M	4.5	44.9	40.7	31.2	73.8	86.0	7.4	60.5	41.2	669.7
Iran	47.2	82.9 M	11.4	33.5	28.3	31.8	80.8	90.1	82.8	57.1	50.1	42.1
Qatar	72.0	2.8 M	0.11	68.3	58.0	54.0	97.9	69.2	94.5	74.0	65.9	80.7

Indicator : \*Economic Freedom, \*Population, \*Unemployment, \*Property Rights (PR), \*Judicial Effectiveness (JE), \*Government Integrity (GI), \*Tax Burden (TB), Government Spending (GS), Fiscal Health (FH), Business Freedom (BF), Labor Freedom (LF), Monetary Freedom (MF). Source; (2020 Index of The Economic Freedom)

According to the table of the economic freedom index can be concluded that the level of macroeconomic indicators can influence the level of investment inflows for each country. It depends on the rule and policy of the government in the host country to attract the investor in the other countries. The economic freedom index is a picture of the level of freedom in the economic environment of a country. There are four important aspect indicators that become of the foundation of economic freedom index including the rule of law, government size, regulatory efficiency and market

Furthermore, to encourage the foreign direct investment inflows can be seen from the some macroeconomic indicators, one of them are Gross Domestic Product (GDP), Inflation, Exchange Rate, Market Size, Population, Financial Development, Human Capital, Policy Maker, Government Size, Trade Openness, Institutional Quality, Infrastructure, Political Stability, and Texas. (Bayer and Ozei, 2014). In this research just only focus in the Inflation, Exchange Rate and Political Stability and Financial Development as a macroeconomic variable indicators to know what is the correlation on Foreign Direct Investment. Empirically, FDI can give the most influence for economic growth in the country.

Political Stability is a crucial factor considered by foreign investors (Moosa, 2002). Political risk is connected to seizure or damage to property, production disruption and changes in regulatory environment the macroeconomics management. Political stability has reached its height several institutions to the develop precise approaches to access it. In the context of a rapidly changing business environment and innovation in different forms of investment. According to Jadhav (2012) and Karicki (2015) mentioned that the impact of political stability on FDI, which has led to the investigation of political stability to understand. This context is the impact of political stability on FDI inflows in the Asia-Pacific Countries. Political or economics stability was the first factor considered in the foreign direct investment decision. (Aharoni, 1966 and Basi, 1963).

In the another analysed by Fosu (1992) mentioned that a negative effect of political stability on economics growth in Sub-Saharan African countries through the study which include political stability regimes, governments and communities. Political stability is very important for economics activities. It can give more influence for normal macroeconomics balance and conducive business environment. Political stability encourage the probability of FDI inflows and it can attract more FDI inflows for the developing countries. According to Kim-Hak-Soon (2010) mentioned that political stability whilst the source of FDI tend to come from countries having records of political stability. FDI is very important for a country as well as the locations within the country. In another study by Hak-Soon (2010) conducted political stability and FDI inflow are positively correlated in those countries that have high level of corruption and low level of democracy.

One of the most important indicator of the macroeconomics level that can give more influence is Exchange rate. The exchange rate is the value of foreign currency. Exchange rate can be understood as a national currency that will be exchange for another currency. Each country in the world has its own the currency and also obligate to maintain the value of currency. At the point, exchange rate represent the price of one currency to another currency. There are two kind of the main assumption that can influence the value and demand for exchange rate ; First, If the domestic interest rate (dollar) increase, the demand of domestic assets of each exchange rate increase, so it makes the demand of dollar can increase or rising the respond of dollar asset. Secod, If the foreign interest rate increase, the demand of domestic asset (dollar) of each exchange rate decrease, so it makes the demand of dollar reduces or decreasing respond of dollar asset. It means increase the demand of another exchange rate. (Miskhin, 2013).

Furthermore, Exchange rate is used to accommodate various transaction in the international financial market level is one of them foreign direct investment. According to Khan et. al. (2012) argue that the exchange rate is a most important indicators in the macroeconomics like FDI and GDP. Many economist, policy maker and investor focused on the exchange rate of

country and make investment their money that in focused country. They have believed increase in exchange rate can creates competitive advantages in the international trade. Javeed and faroq (2009) also said that the exchange rate can impact on the price of export, import and balance of payment. Xing (2006) mentioned that the correlation exchange rate on foreign direct investment is significant, especially for short-run.

In additionally, one of the biggest influence of foreign direct investment is inflation. Commonly, the definition of inflation can be known as a percentage change in the overall level of prices. Inflation is rising the price of general goods and services. Tosun (2002) shows that Inflation affect the purchasing power of individuals and groups negatively by lowering the real wage level. In another important reason, by (Husted, 1999: 342; You and Khagram, 2005: 5; Gupta et al., 1998: 21) said that inflation causes the decreases in the value of money, reducing the real incomes of civil servants, employed in the public sector, spoils the distribution of income and supports the large capital income owners.

According to (Stockman,1981; Aschaver and Greenwood , 1983). Mentioned that the use of resources are available a period later. The domestic and foreign inflation affect both domestic and (foreign) inflation rate. Domestic inflation can increases domestic consumption, reducing the cost of FDI. Similarly, increasing foreign inflation can reduces the cost of domestic investment, shifting investment from the foreign economy to the domestic economy. (Sayek, 2009). Another study, by Braun and DiTella (2004), argued that the increase inflation can lower the investment and economics growth and it can makes the level of corruption higher due to these indirect effect. High level of corruption and high level of inflation caused by seigniorage addiction in order to finance the public expenditure stagnant growth. (Yilmaz and Karaca, 2012).

Another macroeconomics variabel indicator in this research is financial development. Financial development is an integral component of the growth process of an economy. Financial development indicators measure the size, activity and efficiency of financial intermediaries and markets. (Dutta and Roy, 2011). Financial development contributes to increased mobilization of savings, as well as reduction information asymmetries, which leads to better allocation of resources. Financial development can contribute to economics growth in a number ways. (Anwar and Sun, 2011). Financial development has a different types of finance and financial institution an important role in the economics system. There are several ways in which higher level of financial development allows the host country to improve FDI more efficiently. First, provision of more credit facilities allows firms to purchase new machines, adopt new technology and higher better skilled managers and labors. Second, presence of an efficient financial system facilities FDI to create backward linkages, which are beneficial to the local suppliers in the form of improved production efficiency. (Ang, 2010).

The role of financial development in the FDI inflow-growth nexus show that financial development can

realize the positive growth effect on FDI. If the level of FDI is higher, it encourages to be more innovative and productive, increases competition and improves capital allocation. As a result, it can realize the positive growth effect of FDI. In other words, financial development that is captured by financial freedom to reap the positive growth effect of FDI. (Nor, 2015). Additionally, in analysed by Ansori (2002) investigated that the impact of financial development, money supply and government spending, both of monetary and fiscal policies on malaysia's gross domestic product to be significant correlation on foreign direct investment and gross domestic product.

According to research background in this study, so the writer is interest to do the research to fulfill the gap in previous research. The gap in this research can be found in the chosen of the country. The gap in this research can be found in the chosen of the country, the toime period, and the independent variables. Additionally, this research is combination between Islamic investment and foreign direct investment. Not only expaline by conventional perspective but also Islamic value with adding Al-quran as a source for this study. The researcher also explaine the Islamic investment that relate with foreign direct investment in the top eighth muslim countries.

Furthermore, in this paper also explain two kind of currency (real and USD rate currency) with different result in every study analyses, it make different study with another sudies. This is the strong reason for the gap in this study.' However, this research is still less to find with the same topic and the researcher chose the top ten muslim countries for this study and also focus for the macro economics level as an indendent variable where it is the most important for this research. Based on this, the researcher chose the topic with a litle **“Do Corruption and Macroeconomics Indicators Can Influence Foreign Direct Investment?, Case Study : Real and USD Rate Currency”**.

### A. Research Problem

Based on the background concluded that the research problem , which include

1. How the influence of the control of corruption on Foreign Direct Investment (FDI)?
2. How the influence of the Political Stability on Foreign Direct Investment (FDI)?
3. How the influence of Inflation on Foreign Direct Investment (FDI) ?
4. How the influence of exchange rate on Foreign Direct Investment (FDI) ?
5. How the influence of Financial Development on Foreign Direct Investment (FDI) ?

### B. Research Purpose

1. To analyze the influence of the control of corruption on Foreign Direct Investment (FDI)

2. To analyze the influence of the Political Stability on Foreign Direct Investment (FDI).
3. To analyze the influence of Inflation on Foreign Direct Investment (FDI).
4. To analyze the influence of Exchange Rate on Foreign Direct Investment (FDI).
5. To analyze the influence of Financial Development on Foreign Direct Investment (FDI).

### C. Research Benefits

Based the background showt that the benefit from this research

1. For the researcher  
The research can increase the knowledge about the corruption perception index on foreign direct investment
2. For the academician  
The research can be used by the researcher with the same topic control of corruption perception index on foreign direct investment to the another research.
3. For the government  
The research can be used by government, how to control of corruption on foreign direct investment what is the best regulation to control of corruption on FDI.

## LITERATURE REVIEW

### 1. Foreign Direct Investmen

#### 1.1. Investment

According to Gomes (2001) mentioned that the investment is a central macroeconomics. Most economist link high rates of investment in the long-run economics growth and its fluctuation account for a large fraction of the cyclical volatility. Investment can take place requirement for funds and any other kind of interest, because the investment is an essential factor in wealth maximization. An investment is commitment of monetary investment for a period of time in order to deserve future gains or some values which is higher than the principle.

In additionally, the kind of asset in the investment that are form into, including (1) enterprise; (2) the shares, stock, and other forms of equity participation in an enterprise; (3) bonds, debentures, other debt instruments; (4) turnkey, construction, management, production, concession, revenue-sharing, and other similar contracts; (5) claims to money; (6) intellectual property rights; (7) concessions; and (8) any other tangible or intangible, movable or immovable property, and related property rights. (Huan, 2011).

According to Laopodis (2020) mentioned that The global investment environment refers to the world economics activity that can affect in the value, extent, nature of financial market. Investment and portfolio

constructions like a securities. A security is a legal claim on the revenue streams of financial asset or real asset. The example of securities on financial asset such as bonds and stocks. There are three major categories of securities, including :

a. Equity Securities

Equity security or it called by common stockholders is an investor who owns a share in a company and each share entitles the owner to one vote in the corporations important financial matters.

b. Debt Securities

Debt security are claims on some known, periodic stream of payments. The most important category of debt securities is a bond. a bond is contractual obligations of the issuer or seller of the bond to repay the holder or buyer the bond a certain amount of interest. There are several categories of debt and other fixed-income securities, which include corporate bonds, government bonds, municipal bonds, and international bonds.

c. Derivative Securities

Derivative securities are the security whose values are derived from the underlying asset. There are two most important types of securities, such as option and futures. Since 1990s, option and future have exploded in growth and have received wide use since then as a means of hedging risk. For the options, its owner to buy the bonds (a call option) or sell (a put option) before some spesific poin in time. A futures contract obligates the traders to buy or sell an asset at pre-specified price and specified time frame.

## 1.2 Definition of FDI

According to International Monetary Fund (1993) said that FDI (Foreign Direct Insvestment ) refers to an investment made to acquire lasting interest in corporations operating outside of the economy of the investor. It is similarly with OECD (1996) benchmark definition of FDI defines a direct investment corporation which a single foreign investor owns 10 percent or more of either the ordinary shares or voting power of a corporation, unless it can be proven that the 10 per cent ownership does not allow the investor an effective voice in the management (OECD : 1996). Based on neoclassical growth model, FDI promotes economic growth by increasing the efficiency and volume of investment.

In addition, Alfaro et al. (2009), Blomström and Kokko (1998), Borensztein et al. (1998), UNCTAD (1999), and Cipollina et al. (2012), in their research have found that FDI has its benefits. Under appropriate conditions – mainly availability of human capital and developed financial system - FDI can boost capital formation, employment, exports economic growth, and protection of the environment in host economies. It also results in technology transfer and productivity spillovers to local firms through forward and backward linkages, local firms imitating MNEs, or hiring workers trained by MNEs. (Cipollina et al. 2012 ; Mina et al. 2013).

UNCTAD's Global Investment Trends Monitor Issue No.33 further points out that, global FDI growth for 2019 was flat at US\$1.39 trillion, a one per cent decline from the revised US\$1.41 trillion recorded in 2018 due to weaker macroeconomic performance and policy uncertainty for investors, including trade tensions. The underlying trend was up five per cent, and was a marginal change that represented a continuation of the stagnation of FDI flows observed over the decade. (Malaysian Investment Development Authority, 2020).

## 2. CPI (Corruption Perception Index)

According to lucic, Radisic, and Dobromirov (2016) mention that the definition of corruption ranges from the board terms of 'misuse public power and 'moral decay'. Ngouo (2000) and world explained that corruption is the exploiting of the public position for private benefits. Additionally, according to world bank mentioned that Corruption is 'The abuse of public office for private gain' (Transparency International), or 'Monopoly plus discretion minus accountability' (United Nations), or 'a symptom of deep-seated economic, political and institutional weaknesses' (World Bank), or 'An act of guilt, moral pervasion, dishonest proceedings, debasement or alteration and depravity' (Webster's Unabridged Dictionary). Eventhought, there is no universal definition of corruption, but corruption is an acient problem.

In the other side, according to Yousefi (2015) mentioned that the corruption perception index is the most popular data source on corruption. It ranks based on how corrupt their public sector is perceived to be the corruption perception index (CPI) measures the perception of corruption in the public sector.

## 3. Political Stability

Political stability refers to the occurance of an unstable political environment market by structural crises and volatility that threaten the political system's safe functioning. Political stability implies the precense of peace political order and sustained political change over time. (Okoli and Lotyer, 2014). Political stability is a crucial source of risk for a well-structured country. It can deepen institutional differences and increase confusion about government policies. (Witte, Burger and Pennings, 2020). The empirical findings revealed the long and short run relationship between plotical stability, foreign direct investment and economics growth. Investors believe that political stability in the host country is important for choosing investment locations. (Odugbesan, et. al, 2021).

There are many sholars who had done the empirical studies to investigates the relationship between political stability and foreign direct investment inflows such as analysed by Jafari et. al (2010) concluded that political stability had a positive and significance impact on FDI in the MENA region. FDI inflow is highly encouraged by the stability in the government and low level of external conflicts by using ARDL. Political stability is playing an important role in determining economics growth in Asian countries. There is direct and indirect relationship between political stability and economics growth not only indirectly by source of capital accumulation but also directly on growth than labor, human capital and economics freedom.

#### 4. Inflation

Inflation means an increase in the general price level of goods and commodities or services for a certain period of time. (Karim, 2015). According to Shu Lin and Haichun Ye (2012) said that inflation is one of the most important recent innovations in the conduct of monetary policy and inflation rates can be controlled by controlling the rate of growth of the money supply. Rahardja and Manurung on Rohmanda et al (2014:2-3) found that there are three components point of the definition of inflation : Firstly, there is a tendency of rising price, even a certain of time there is a depreciation or appreciation compared to the previous event but still shows a tendency to increase. Secondly, the rising price that occurs tends to be general, it is means the increase in price is not only suffered by just one or few commodities. And third, the increase of price that continuously occurs, which is mean it is not happening in a certain of time.

The inflation is reflects excessive and unstable monetary growth. (Aïssa,et al.2007). Lower inflation expectations influenced weakening inflationary pressure. The decline in inflation expectations is partly influenced by exchange rate appreciation and a slowdown in economic activity. (Montes & Lima,2018). Based on the research from Yousefi (2015), in her thesis explained that inflation is monetary policy phenomenon in long-run and it is caused by the growth in the money supply in excess of the growth rate of trend output.

#### 5. Exchange Rate

The exchange is a payment instrument for international transactions towards economic activities. The exchange rate is one of the basic economic tools that are used to correct a number of economic misalignments facing a nation. (suhadak and Amanda, 2020). According to Linda S. Goldberg (2015) said that Exchange rates, defined as the domestic currency price of a foreign currency, matter both in terms of their levels and their volatility. Exchange rates can influence both the total amount of foreign direct investment that takes place and the allocation of this investment spending across a range of countries.

Exchange rate changes offset differences in relative inflation, keeping earnings, as measured in the home currency, constant. (Kathryn L. Dewenter, 1995). Based on the new macroeconomics the real exchange rate are divided into two categories, monetary and non-monetary elements. Dornbusch (1976) show that forecasted monetary shocks through overshooting effect of exchange rate can create extreme volatility of exchange rate. In addition, Calderon, (2004) say that the stability of monetary shocks are the only effective element on the variation of exchange rate and the non-monetary elements including efficiency shocks and state expenses can be effective on them.

There are two kind of the main assumption that can influence the value and demand for exchaghe rate ;

First, If the domestic interest rate (dollar) increase, the demand of domestic assets of each exchange rate increase, so it makes the demand of dollar can increase or rising the respond of dollar asset. Secod, If the foreign interest rate increase, the demand of domestic asset (dollar) of each exchange rate decrease, so it makes the demand of dollar reduces or decreasing respond of dollar asset. It means increase the demand of another exchange rate. (Miskhin, 2013).

#### 6. Financial Development

Financial development is an important factor that helps toachive sustainable economics growth and the main factor that promotes economics growth. Moreover, financial development is one of key factors of foreign direct investment. Foreign direct investment and Fiancial development is estimated to capture contingency of the FDI-growth nexus on fianancial development which was interpreted as an average effect. Various study has been found that the correlation financial development on foreign direct investment and growth. Financial development reduces cost of external finance and thus increases growth (Rajan and Zingales, 1991).

Financial development on growth come growth total factor productivity improvement. (Levine, et.al, 2000). Another analysed by Desbord and Wei (2004) found that the financial development of a source country can directly induce FDI by improving the firms ability. The impact of foreign direct investment and financial development of economic growth is a significant positive impact for the period of 1970-2014 in sudan. Some scholars argued that financial development improves the quality of environment one of them based on analysed by Tamazian et.al (2009) mentioned that financial development may attract foreign direct investment, higher degree of researcher and development and fianancial development hence improves the quantity of environment.

#### B. Previous Emperical Study

According to previous research, there are two main views on the impact of corruption on FDI inflows. First, the corruption has a significant negative impact on FDI, because corruption increases the cost and weakness transparency and property rights. Second, the corruption has a significant positive impact on FDI, because corruption can attract the problem for institution and regulation. Various study have been done to know what is the correlation or effect that relate with this study, such as analysed by Saidi et.al (2012) mentioned that corruption had positive impact between political instability and regulatory quality on FDI inflows. Based on the panel regression in 20 developed and developing countries during 1998-2011.

Additionally, according to Kersan-Skabic (2013) also found that corruption had significant impact on FDI inflows. In their research examined that the institutional determinants of FDI inflows in 8 south east european countries during 2001-2010 periode employing panel regression. However, many economist found that the relationship between FDI and corruption, which include Al-sadig (2009) show that corruption had a negative

significant in FDI inflows in 117 countries during 1984-2004. Similarly, Woo (2000) also mentioned that the impact of corruption on FDI inflows in 90 countries during 1984-2004 period and he concluded that corruption had negative significant on FDI inflows.

Additionally, according to Samimi and Mofared (2011) found that a negative significant between corruption on FDI inflows in 16 organisation of Islamic Cooperates Countries during 2002-2008. Dutta and Ray (2008) they studied that the effect of political stability on FDI and financial development, they found that higher level of political stability increases financial development and also leads to higher levels of FDI inflows using by data of 97 countries. Another analysed by Buse and Hefeker (2005) they investigated that the government stability have a statistically significant effect on foreign direct investment.

Analysed by Shahzad and Al-Swidi (2012) said that Political stability enhances attracting more FDI inflows into the developing countries. If political stability is not good, foreign investment which hesitate to bring any projects until they are assured that the business environment. Similar findings with analysed by Root and Ahmed (1978) they investigated that political stability had a significant negative relationship between foreign direct investment inflows.

Masten, (2007) in his thesis about the Impact of exchange rate volatility on U.S. foreign direct investment on Latin America starts to say that previous studies have shown that exchange rates play a vital role in the analysis and are a major determinant in the flow of FDI. Linda S. Goldberg (2005) found that is one of the many influences on FDI activity is the behavior of exchange rates. Exchange rates can influence both the total amount of foreign direct investment that takes place and the allocation of this investment spending across a range of countries. When a currency depreciates, meaning that its value declines relative to the value of another currency, this Exchange rate movement has two potential implications for FD.

In addition, the empirical study by Valli and Masih (2014) investigated that the level of inflation has a significant impact on the amount of FDI inflows. The level of inflation can attract sustainable and increased FDI inflows to the developing countries. They argued that inflation and FDI inflows have a significance negative correlation based on their analyses. In contrast, the fundings in analysed by Sayek (2009) mentioned that the increasing inflation rates have been a deterrent of FDI inflows and 1980s might have contributed to the increase FDI inflows to these economies. Furthermore, the inflation is one of the key factor that drive FDI.

In addition, Sayek explained that the effects of inflation on the investment decision of multinational enterprises (MNEs). Inflation causes an increase in current consumption, which reflects the opportunity cost of investment. Increased domestic inflation causes investment smoothing in any direction. The effect of inflation on the domestic and foreign investment alternatives simultaneously. Changes in inflation rates of the domestic and foreign country are anticipated the net returns and optimal investment decision. (Sayek, 2015).

Another analysed by Chakrabarti and Scholnick (2000) in their paper with the title ; "Exchange Rate and FDI Flows" has investigated several panel data estimation techniques on data comprising exchange rate movements and FDI flows from the USA to 20 countries over a period of 14 years (most of the 80's and the first half of the 90's). They found that average devaluation in the preceding year does not have a robust positive impact on FDI flows. Desbordes and Wei (2014) mentioned that financial development plays a vital role in attracting foreign investor into the host economies. It means that countries well developed financial institution can attract foreign direct investment.

Hameed and Omar (2019) mentioned that Financial development can affect foreign direct investment through various channels are consist of allocative efficiency, transaction cost reduction, enforcement contract and liquidity. They reported that financial sector positively effect FDI inflows in China. On the same line, Ang (2008) found that the positive relationship between foreign direct investment and financial development. There is a nation that financial development may not necessary be the important determinant for foreign direct investment flow to the developing countries. Claessens et al (2001) argued that developing countries the FDI may be a substitute for the less developed financial sector.

**C. Research Hypothesis**

The hypothesis is the answer that reduce of the theory of research based on the research problem. Hypothesis can be defined as the answer that must be search of the truth. Hypothesis is also the answer on the research question. (Anhar, 2020). Based on conceptual framework describe above then obtained the following research hypothesis. For the hypothesis in this study is to test a positive or negative significance effect of the numerical values from the result of the OLS regression estimate as a parameter for the dependent and independent variables.

**Assumption ;**

$H_0 = 0$  (There is a positive significant effect on FDI)

$H_1 \neq 0$  (Theres is a negative significant effect on FDI)

**Decision ;**

Accept  $H_0$  if the  $t_{0.05} > t$  statistic

Reject  $H_0$  and accept  $H_1$  if  $t_{0.05} < t$  statistic

**1). Foreign Direct Investment (FDI)**

Assumption ;

$H_0 = 0$  (There is a positive significant effect on FDI)

$H_1 \neq 0$  (Theres is a negative significant effect on FDI)

**2). Corruption Perception Index (CPI)**

**Assumption ;**

$H_0 = 0$  (There is a positive significant effect of Corruption Perception Index on FDI in the period 2015-2019)

$H_1 \neq 0$  (Theres is a negative significant of Corruption Perception Index on FDI in the period 2015-2019).

**3). Politcal Stability**

**Assumption :**

$H_0 = 0$  (There is a positive significant effect of Political Stability on FDI in the period 2015-2019)

$H_1 \neq 0$  (Theres is a negative significant of Political Stability on FDI in the period 2015-2019).

**4). Infaltion (INF)**

**Assumption ;**

$H_0 = 0$  (There is a positive significant effect of Inflation on FDI in the period 2015-2019)

$H_1 \neq 0$  (Theres is a negative significant effect of Inflation on FDI in the periode 2015-2019)

**4). Exchange Rate (EXR)**

**Assumption :**

$H_0 = 0$  (There is a positive significant effect of Excahngge Rate on FDI in the periode 2015-2019)

$H_1 \neq 0$  (Theres is a negative significant effect of Exchange Rate on FDI in the period 2015-2019).

**5). Financial Development (FD)**

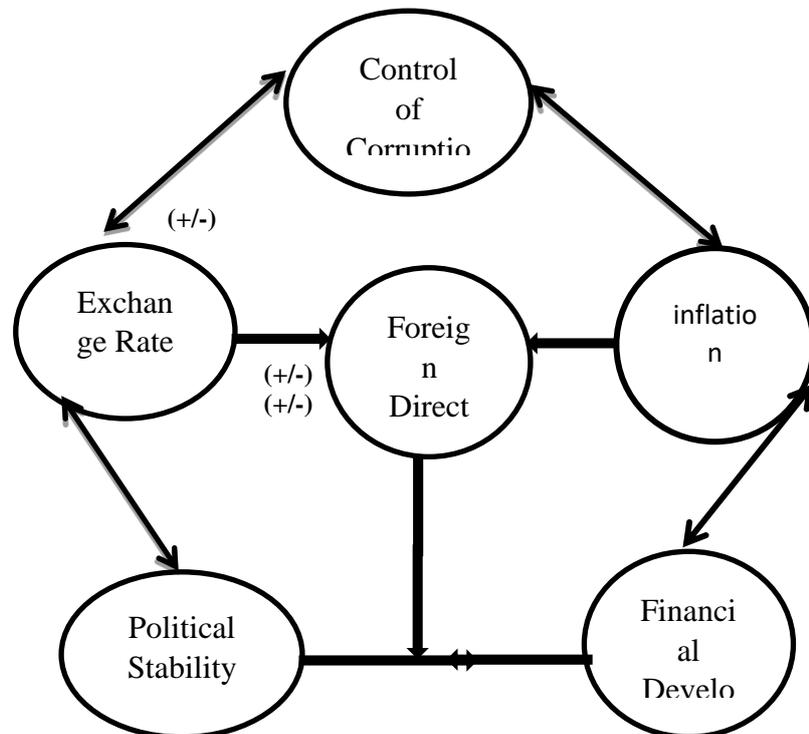
**Assumption :**

$H_0 = 0$  (There is a positive significant effect of Fianncial Development on FDI in the period 2015-2019)

$H_1 \neq 0$  (Theres is a negative significant effect of Financial Development on FDI in the period 2015-2019).

**D. Research Design**

Based on the background – previous study and the theory of this research can concluded that Foreign Direct Investment as dependent variable (Y), as the independen variable (X) which include, Worldwide Development Index (X1), Inflation (X2), gross Domestic Product (X3), and exchange Rate (X4).



**Figure 1.1**  
The schame of Research Design

## METHOD

### A. Research Objective and Data

The types of research is a descriptive quantitative research where the object of this research is conducted the level of corruption perception index on foreign direct investment for top ten muslim countries by using macroeconomics indicator, which include gross domestic product, inflation and exchange rate. The data is used in this study is secondary data that as a main source of this study in the yearly frame time. The time periode of data was from 2015 to 2019 in the yearly. The data technique collection in this study was trough library publications research method, the data which are in obtained of publication related parties such as from The World Bank and United Nation Coopeartion Trade and Development (UNCTAD), which describe in the table :

**Table 3.1.**

The Table of independen Variable

No	Variable	Symbol	Source of data	Availi bity
1.	Foreign Direct Investm ent	<b>FDI (Annual USD%)</b>	UNCTAD www.unctad.com	In the yearly , (2015 - 2019)
2.	Worldw ide Develop ment Index	<b>The World Bank ( Score of the level of Corrup tion)</b>	The World Bank www.worldb ank.com	In the yearly , (2015 - 2019)
3.	Political Stability	<b>WGI (Score of Politica l Stabilit y)</b>	The World Bank www.worldb ank.com	In the yearly , (2015 - 2019)
4.	Inflation	<b>INF (Annual USD%)</b>	The World Bank www.worldb ank.com	In the yearly , (2015 - 2019)
5.	Exchan ge Rate	<b>EXR (Annual USD%)</b>	The World Bank www.worldb ank.com	In the yearly , (2015 -

				2019)
6.	Finacial Develop ment	<b>FD (Annual USD%)</b>	International Monetary Fund www.IMF.co m	In the yearly , (2015 - 2019)

### B. Research Variable and Operational Variable

Operational variable defined that given to specific variable activities or give and implement the variables or constructs. The variables are used in this study which include, Foreign Direct Investment (FDI), Corruptin Perception Index (CPI), Political Stability, Inflation (INF), and Exchange Rate (EXR) and Financial Development (FD). The definition of operational variable in this studies are :

#### 1. Foreign Direct Investment (FDI)

United Nation Cooperation Trade and Development (UNCTAD) mentioned that foreign direct incestment is a key macroeconomics indicator that can influence in the economics growth. Foreign direct investment defines as an investment a long term relationship and long lasting interest and control by resident entity of one economy. Foreign direct investment plays an important role of economic developing. There are two ways to increase the foreign direct investment on growth, such as : First, to increase the investment of foreign direct foreign direct investment by attracting higher level of domestic investmtent. Second, through interaction in the ore advanced technology in the host human capital andsd also foreign direct investment is more productive than domestic investment.

#### 2. Worldwide Government Index (WDI)

According to Taksoz mentioned that the corruption defined as the missuse of public for private benefits. Corruption is one of the major ills that posses a most serious threat to the much desired economic growth process. Additionally, by Mint (2006), at least, there are some behavior of corupto, such as Nepotism, Ecosytem, Fraud, Exbortion, Briberry, Embezzlement, Appropriation of public assets and property for private use and the last influence pedding.

#### 3. Political Stability

Political stability refers to the occurance of an unstable political environment market by structural crises and volatility that threaten the political system's safe

functioning. Political stability implies the presence of peace, political order and sustained political change over time. Political stability is a crucial source of risk for a well-structured country. It can deepen institutional differences and increase confusion about government policies. (Jafari, et. al 2011).

#### 4. Inflation (INF)

Inflation is a monetary phenomenon in the long run where the inflation is caused by the growth in the money supply. It has been a general agreement in macroeconomics, since 1970s. Inflation can reflect excessive and unstable monetary growth. The high threat of inflation for monetary stability in a country can encourage the monetary authorities in each country to make inflation one of the main monetary policy authorities. (Orlowski; 2008, Mukhlis and Viphindartini; 2021).

#### 5. Exchange Rate (EXR)

According to Jeju, Sohu, and Hussain (2016) found that the definition of exchange rate based on the financial dictionary is the value of one currency in terms of another value. The exchange rate plays an important role in determining relative prices in the world market and encouraging monetary authority. The real exchange rate can influence foreign trade flows, the balance of payment, the level and structure of production, unemployment, consumption, allocation of resources in the economy and domestic price.

#### 6. Financial Development

Financial development is an important factor that helps to achieve sustainable economic growth and the main factor that promotes economic growth. Moreover, financial development is one of the key factors of foreign direct investment. According to Tamazian et al (2009) mentioned that financial development may attract foreign direct investment, higher degree of research and development and financial development hence improves the quantity of environment.

### C. Method Analysis

The method analysis is used in this study is panel data. Panel data is a combination between time series and cross-sectional data. According to Agus (2009) mentioned that according to Agus Widarjono 2009, using data panel in one of observation have some profits obtained. First, data panel is the combination of two data are: First, time series and cross section capable to prepare more data so

more produce the bigger degree of freedom. Second, combination information from time series data and cross section can overcome the problem that appear when there is an omitted-variable. (Rasyidah, 2017).

### D. Hypothesis and Data Analysis

#### 1. Regression model of Panel Data

The data in this study was collected from three data base. This study use the data consist of the top ten muslim countries (Malaysia, Saudi Arabia, United Arab Emirate, Indonesia, Jordan, Bahrain, Kuwait, Pakistan Iran and Qatar). In particular include, 2 countries from Southeast Asia, 2 countries from ASEAN, and 6 countries from West Asia. The data on FDI was collected from United Nation Corporation Trade and Development (UNCTAD) database in the periode from 2015 to 2019. The data on Political Stability, Inflation, and Exchange Rate from the World Bank data base in the periode from 2015 to 2019. The data on CPI was collected from Corruption Perception Index and Worldwide Governance Index (World Bank) database in the periode from 2015 to 2019. Based on the background can be shape the tested model, with the result:

#### 1. Model 1 (Real Exchange Rate Currency)

$$FDI_i = \alpha + \beta_1 CPI + \beta_2 INF + \beta_3 EXR_i + \beta_4 POL + \epsilon$$

Where:

FDI = Foreign Direct Investment

$\alpha$  = Constant

CPI = Corruption Perception Index

INF = Inflation

EXR = Real Exchange Rate

POL = Political Stability

#### 2. Model II (USD Exchange Rate Currency)

$$FDI_i = \alpha + \beta_1 CPI + \beta_2 INF + \beta_3 EXR_i + \beta_4 POL + \epsilon$$

Where:

FDI = Foreign Direct Investment

$\alpha$  = Constant

CPI = Corruption Perception Index

INF = Inflation

EXR = USD Exchange Rate

POL = Political Stability

### 3. Estimation Method on Panel Data

In this study used some analysis method to get the goals of panel data and also it used the time series and cross sectional analysis as a analysis approach. The analysis method of panel data in this study, which include :

#### a. Common Effect

Common effect model is a simple model in the panel data approach. Common effect model is called as pooled OLS (Ordinary Least Square). The principle assumption of common effect model is no different among the data matrices. The cross sectional dimension which implies that there is no differences and it is useful under the hypothesis. This model combine between time series and cross section in pooled model. This model can be formulated as :

$$Y_{it} = \beta_1 + \beta_2 X_{2it} + \beta_3 X_{3it} + \epsilon_{it}$$

Where :

Y = Dependen Variable

i = The unit of observation (Malaysia, Saudi Arabia, UAE, Indonesia, Jordan, Bahrain, Kuwait, and Qatar)

t = The time of period (2015, 2016, 2017, 2018, 2019)

#### b. Fixed Effect

Fixed effect models often relate more to the estimation procedure and other assumption. Fixed effect is to allow individual error in different time periode. The difference can accommodate the intercept. Fixed effect models was called by LSDV (Least Square Dummy variable) where LSDV can accommodate time effect whice have systemic characteristic. In this case, the model become

$$Y_{it} = \alpha + \beta X_{it} + u_{it} + V_{it}$$

this model can do by increasing dummy variable model.

#### c. Random Effect

Random effect model is an alternative method of estimation which handles the constant for each section. Random effect model is a generalized least square

(GLS) estimator explicitly developed for the assumption. In this model the intercept for each cross sectional unit are assumed a commond intercept  $\alpha$ , plus a random variable  $\epsilon_i$  that varies cross sectionally but is constant in ever time. In this case, the model can be shape :

$$Y_{it} = \alpha + \beta X_{it} + W_{it}$$

Where :

$Y_{it}$  = Deendent Variable (FDI)

$\alpha$  = constant

### E. The Election Model

In this study, there is three the election of data panel model, which include:

#### 1. F-Test (Chow Test)

The F-Test or Chow Test is used to compare the value of F and calculate by F table hypthohesis, where

H0 = Pooled Effect Model

H1 = Fixed Effect Model

If the value of F calculated  $>$  F table, so H0 will be rejected, it means the certain test model will use Fixed Effect Model. So, if the value of F higer ( $>$ ) than F table, it means H0 is accepted and the model will use Common Effect Model. In this case, the formulaton of the model can be written as

$$F = \frac{(SSE_1 - SSE_2)}{(n - 1) \frac{SSE_2}{nt - nk}}$$

where :

SSE<sub>1</sub> = Sum square error from common effect

SSE<sub>2</sub> = Sum square error from fixed effect

n = the amount of cross section (region)

nt = the amount of cross section x time series

k = the amount of independent variable

so, for the F table can be formulated as

**F-table {df (n - 1, nt - n - k)}**

## 2. Housman Test

The Housman test (1978) provides specification of information on appropriateness of the random effect model and fixed effect model. According to Wooldridge (2013), Hausman test statistically formulated as follows,

$$H = (\beta_{REM} - \beta_{FEM})' (M_{FEM} - M_{REM})^{-1} (\beta_{REM} - \beta_{FEM}) \sim X_2(k)$$

where:

$M$  : Covariance matrix for parameter  $\beta$

$k$  : Degree of freedom

The hypothesis of the Housman test can be written as

**H<sub>0</sub> = Random Effect Model**

**H<sub>1</sub> = Fixed Effect Model**

The parameter of Hausman test can be assumed if the value of prob > Chi<sup>2</sup> is greater than 0.05 ( significant level or  $\alpha = 5\%$ ) then fail to reject H<sub>0</sub>. So that, the chosen for the model is random effect. But if the value is less than 0.05 then H<sub>0</sub> is rejected, so the model is chosen fixed effect.

## 3. Classical Assumption Test

The kind of classical assumption test in the linear regression by ordinary least square approach, which include :

### a. Multicollinearity Test

Multicollinearity test is used to find the correlation of regression model between independent variable. This model is very important to occur when the regression model use more than one variable. If the freedom of variable is only one, so it will be impossible to be a multicollinearity.

### b. Heteroscedasticity Test

According to Ghazali (2005) mentioned that Heteroscedasticity test was performed to test the regression model occurring residual variance similarity from observation to

other observations. If the residual variance of one observation with another observation remains, it is called homoscedasticity, but if the variance is changed it is called heteroscedasticity. This model is used if the panel data is nearer with the characteristic of cross section data than time series data.

## F. Hypothesis Test

According to Kuncoro (2011) mentioned that the hypothesis test can be measured from the regression function statistically, so this analysis can be measured from t statistic value, f statistic value and the coefficient of determination. The regression analysis aims to determine the partial of independent variable and also to know the proportion of independent variable. It explain the change of dependent variable. In this study, the hypothesis can influence the existing literature of the determine on FDI.

### 1. F-Statistic Test

The F-Statistic Test Show almost independent variable and also this model have a mutual influence on the dependent variable. This model has been conducted with a degree of confidence of 5% by using the formulation from Kuncoro (2011). On that case, this model can be assumed that

Where:

**SSR = Sum of Square due to regression**

**SSE = Sum of Square error**

**n = number of observation**

**k = number of parameters (concluding intercept) in this model**

### 2. Determination Coefficient Test

According to Widarjono (2009) mentioned that the determination coefficient test or it called by (R<sup>2</sup>) is used to explain how is the biggest proportion of variation the dependent variable that can be explained by the dependent variables. In addition, by Kuncoro (2011) also shows that the coefficient of determination (R<sup>2</sup>) it is range between zero and one (0 < R<sup>2</sup> < 1) the value of

R<sup>2</sup> is small or it is close to zero, so it means the ability of independent variable to explain the coefficient of the dependent variable is limited. The independent variable can provide to change independent variable.

### 3. T-statistic Test

T-statistic Test is conducted to know the influence of the significant independent variable and dependent variable. Based on Kuncoro (2011) mentioned that the formulation for T-statistic Test can be used as

$S$  = The standard deviation to calculate the root variance.

The hypothesis for T-statistic Test are

**H<sub>0</sub> = Partially no significant effect on the dependent variable**

**H<sub>1</sub> = Partially significant effect on the dependent variable**

Based on this case, can be assumed :

If the value of the probability  $t$  count  $> 0,05$  then H<sub>0</sub> is accepted and H<sub>1</sub> is rejected. When the value of the probability  $< 0,05$  then H<sub>0</sub> is rejected and H<sub>1</sub> is accepted. There are another argument about T test. It determine the significance an independent variable individually within effect the dependent variable. So, based on this explanation, the hypothesis for T-statistic Test as follows

**H<sub>0</sub> =  $\beta_1 = 0$**

**H<sub>1</sub> =  $\beta_1 \neq 0$**

Where :

If the value of probability ( $<$ ), the null hypothesis, (H<sub>0</sub>) is accepted and the alternative hypothesis (H<sub>1</sub>) is denied. It means the variable is not significant. Additionally, if the value of the probability ( $>$ ). It means the dependent variable can influence or the variable is significant.

## DISCUSSION

According to Teixeira and Guimaraes (2015). In their research mention that foreign direct investment plays a key role in the economics development of the recipient country. According to United Nation Cooperation on Trade and Development (2017) explained that the total world FDI inflows reached at US \$1.75 in the 2016. It is allocated into developing countries at 37%. The country that attract FDI inflows find it easier to implement investment projects and develop economics growth. Foreign direct investment can enhance or promote technology, managerial and marketing prices for developing countries. Furthermore, Foreign direct investment is a key macroeconomics indicator that increase economics growth one of them are the population of muslim and non muslim majority in the world.

According to The Pew Research Center Forum on Religion and Public Life mentioned that the condition of muslim population in the world, there are 49 countries in which muslims comprise more than 50% of the population in over 2010 years. There are three types of countries for the muslim and non muslim majority, such as muslim majority, non muslim majority countries in less developed regions and non muslim majority countries in more developed regions. In many muslim majority countries-including Indonesia, Iran, Lebanon, United Arab Emirates, Turkey and Tunisia fertility rate also have dropped substantially.

The total fertility rate for all muslim majority countries has fallen from 4.3 children in over period 1990-1995 years to an estimated 2.9 children in 2010-2015. In non muslim majority countries in less developed regions including all of latin America, such as Africa, Asia-Pacific, Central and South America (including the Caribbean). The fertility rates have dropped in recent decades. For muslim majority countries in more developed regions, this category is often described as the "developed world". It includes all countries in Europe, North America, Australia, and New Zealand and Japan. A total of 1.2 billion muslims live in the developing countries, representing 74% of the global muslims population of 1.6 billion. The total muslim population of 1.7 billion is expected to live in muslim-majority nations.

### A. Malaysia

UNCTAD's Global Investment Trends Monitor Issue No.33 further points out that, global FDI growth for 2019 was flat at US\$1.39 trillion, a one per cent decline from the revised US\$1.41 trillion recorded in 2018 due to weaker macroeconomic performance and

policy uncertainty for investors, including trade tensions. The underlying trend was up five per cent, and was a marginal change that represented a continuation of the stagnation of FDI flows observed over the decade. Against this backdrop, Malaysia's FDI flows started off strongly in 2019, when FDI for the first quarter registered RM21.7 billion— from RM11.2 billion in the same quarter of 2018— as a result of capitalising on Malaysia's competitiveness within the global supply chain and also business relocations arising from the US-PRC trade spat.

FDI for the fourth quarter improved to RM3.7 billion compared to the third quarter's RM2.9 billion and was mainly channelled into the construction sector as well as the wholesale and retail trade subsector of the services sector. The total stock of FDI in the country rose to RM691.6 billion as of the end of 2019, a rise of 9.6 per cent compared to RM631.2 billion in 2018. FDI is an important contributor to the country's economic growth and the Government has been proactive in encouraging growth based on productivity, innovation and shared prosperity in order for wages to continue rising. FDI also plays an important role in supporting Malaysia's move to become a high-income technology-based economy. (Malaysian Investment Development Authority, 2019).

In addition, as a Muslim country, Malaysia also has some Islamic investment sectors, such as halal food, Islamic finance, Muslim friendly travel, modest fashion, pharma & cosmetics and media and recreation. According to Islamic economics report (2020-2021) Malaysia has become top 3 countries by the value of Islamic finance assets and retain their positions from last year. Islamic finance has become the most popular in the Islamic investment sector in Malaysia.

## **B. Saudi Arabia**

According to Albassam, (2014) in his research with the topic "Does Saudi Arabia's economy benefit from foreign investments?" said that Saudi Arabia is the largest producer of oil, and the Saudi economy is among the top 20 economies in the world (Saudi Arabia is part of the G-20 summit, which includes the 20 largest economies in the world). In the Middle East and North Africa (MENA) region, Saudi Arabia is the largest economy. Thus, Saudi Arabia plays an important role, economically and politically, in shaping the world economy. Empirical studies, FDI flows to Saudi Arabia rose from \$1.4 billion in 2017 to \$3.2 billion in 2018, still significantly lower than the 2008 peak of \$39 billion. Political factors and lower oil prices were largely responsible for lower than usual FDI flows to Saudi Arabia. Recent efforts aimed at economic diversification in the country have identified FDI as a key priority, however. Some new projects outside the oil and gas sector have been generated. In 2018, Aubin Group (United Kingdom) invested \$743 million to establish a chemical

manufacturing facility in Saudi Arabia. (United Nation Conference on Trade and Development, 2019).

## **C. UAE (United Arab Emirates)**

UAE (United Arab Emirates) is one of six Gulf Cooperation Council (GCC) countries, which include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE and it is also one of the GCC OPEC members. The UAE government aims to build a sustainable knowledge based economy, as projected in the UAE 2021 Vision. In the UAE 2021 vision, there are theme 3 of the vision "United in knowledge" such as in creating a sustainable and diversified economy, home-grown entrepreneurship is to be stimulated and FDI to be attracted. In addition, FDI is envisaged as one of the pillars for the structural transformation of the economy. (Wassem, 2013).

UNCTAD (United Nation Conference on Trade and Development, 2019) explained that, The UAE has a high inward FDI potential in 2008 and 2009 based on inward FDI potential index ranking. UAE's inward FDI potential index was ranked third and fifth among 142 countries. In 2018, FDI flows to the United Arab Emirates remained largely unchanged at \$ 10 billion. Investment targeted a diverse range of sectors, from oil and gas to digital technologies. With such potential, FDI can be beneficial to the UAE economy in the long run. Empirical studies, such as Alfaro et al. (2009), Blomström and Kokko (1998), Borensztein et al. (1998), UNCTAD (1999), and Cipollina et al. (2012), have shown that FDI has its benefits. (UNCTAD, 2019).

World Trade Organization (WTO) 2006 and 2012 Trade Policy Reviews of the UAE said that UAE's investment policy limits foreign investment, except in the free zones where 100 percent foreign ownership is allowed, and thus reduces competition between local and foreign investors in the economy. The Federal Commercial Companies Law (No. 8 of 1984) and its amendments stipulate that UAE nationals must hold at least 51 percent of the capital of any company established in the UAE.

In addition, The UAE Government has established nearly 40 free zones, in which 100 percent foreign ownership is allowed and no taxes are levied. In the other hand, as the biggest Muslim countries, UAE also has Islamic investment sectors, which include halal food, Islamic finance, Muslim travel-friendly, modest fashion, pharma & cosmetics and media & recreation. According to Islamic global report 2020, UAE has become top 2 Muslim countries in the Islamic investment sectors especially for Muslim friendly travel has reached at 6.2 million. (The Global state of Islamic economics report, 2020-2021)

## **D. Indonesia**

According to Foreign Investment Review contributing editor by O. Borgers et. al. (2020)

explained that Indonesia has favoured foreign investment as mean to realise national economics since 1976. In the year, indonesia was adopted insvetment low and since 2007, the investment law replaced the 1976 low in an effort to update and streamline capital investment. Additionally, there are various foreign direct investment in Indonesia, wheter set by policy and regulation. As the government of Indonesia has sought to balance the development of Indonesia throught large-scale foreign investment and the needs of micro, small and medium scale businesses and cooperatives.

In addition, based on the world investment report (2020), Indonesia's foreign direct investment inflow grew by 7 per cent to \$22 billion. Intra-ASEAN investments, mainly from Singapore, accounted for more than 50 per cent of the flows. Increased investment from China and Japan further contributed to the record inflows. Investment in manufacturing, infrastructure, real estate and the digital economy was strong. In 2018, major infrastructure projects involving foreign MNEs, such as new segments of the Jakarta Light Rail Transit, were completed. New SEZs, such as Galang Batang and Sei Mangkei, are also contributing to FDI inflows, both in the construction phase and through the attraction of new investments in the zones. (UNCTAD, 2020).

In the other side, the capital investment low only covers foreign direct investment Indonesia. Direct investment means that capital investment activity is to conduct the business activity within the area of the republic of Indonesia. The capital investment law does not address foreign direct made through the capital market, and as notd above, financial services, and oil and the gas industry are not covered by he capital investmet law and the regulation. As the muslim countries, indonesia has Islamic investment sectors, such as halal food, Islamic finance, muslim friendly travel, modest fashion, pharma & cosmtics and, media & recreations. Based on Global Islamic Economics Report 2020-2021 expalined that in 2018, muslim spend on food increased by 3.1% in 2019 to \$ 1.17 trillion from \$ 1.13 trillion. Indonesia is the top one country for the halal food sectors. (Global Islamic Economics Report, 2020-2021).

#### **E. Jordan**

According to OECD (2020) shows that foreign direct investment (FDI) is one of the key ways that economies integrate into the global economy. FDI is not only an important channel for exchanging capital across countries, it is also an important channel for exchanging goods, services, and knowledge and serves to link and organize production across countries. FDI provides a means to create stable and long-lasting relationships between economies, and it can be an important vehicle for local enterprise development. Additionally, In 2017, FDI inflows in Jordan increased by 8% (to USD 1.7 billion), a reversal from the declining trend observed since 2014 but remaining

below levels recorded in 2006-2009 when they were more than USD 2.5 billion.

In the MENA region as a whole, FDI inflows increased by 9% in 2016. At the global level, FDI flows decreased by 7% in 2016 and by 18% in 2017. Within the OECD and EU areas, FDI inflows remained stable in 2016 but decreased in 2017, by respectively 37% and 45%. (OECD, Review of Foreign Direct Investment: Jordan, 2020). In the other side, FDI outflows from jordan remained very limited in 2017 at USD 7 million compared to USD 3 million in 2016 and USD 1 million in 2015.

FDI outflows from Jordan represented 0.03% of total outflows from the MENA region, as compared to 0.3% in 2014, and 2.2% (their highest share) in 2005. In 2017, major investors from the MENA region were Saudi Arabia (35%), Kuwait (34%), and Oman (12%). (OECD, 2020). Based on the global Islamic economics report shows that Jordan is one of the top 5 muslim countires in the world. Jordan retained the eighth position within the Muslim-friendly travel indicator. Jordan also has moved up by two places in the Islamic finance indicators within 11% increases in assets. (The Global Islamic Economics Report, 2020).

#### **F. Bahrain**

Al-Khalifa (2007) in his dissertation with the topic "Foreign Direct Investmen in Bahrain" explained that the state of Bahrain is one of the arab gulf states, the so-called oil monarchies that make up the gulf cooperation council (GCC), Saudi Arab, Kuwait, Qatar, Oman, Bahrain, and United Emirates Arab (UAE). The GCC economies share certain characteristics with developed economies. These include high level of percapita income, convertible national currencies. Unrestricted flow of foreign exchange, a well developed capital infrastructure, long life expectencies, high ratio of capital surplus, a sizeable foreognaid programme and high living strandard. Additionally, Bahrain is more in need of new foreign direct investment than the other GCC states. These state have so far successfully pacified opponents by providing their subject with jobs that pay well and with excellent social services.

Furthermore, Bahrain has resorted to a variety of schemes to induces foreign firms to become more involved in the economy. As a muslim countries, Bahrain also has some islamic ivestment sectors. In 2020, Bahrain has become the top eight muslim countries ranks for Islamic finance. According to the state of global Islamic economics report (2020-2021) said that Bahrain's retail banks, finance, and micro-finance firms, including Islamic financial institutions, agreed to grant citizens a six-month waiver without fees, compound interest, or increase in the profit or interest rate as instructed by the Central Bank of Bahrain.

## G. Kuwait

Kuwait is one of six GCC countries that have larger shares of FDI which include Bahrain, United Arab Emirates, Saudi Arabia, Qatar and Oman. Foreign direct investment in GCC has worked as a vital source for development of infrastructure, job creation, diversification of revenue and investment in new enterprises beside adding strength to the local economy. In the year 2000 to 2008, The inflow of FDI in GCC witnessed a positive development. The trends of foreign direct investment in Kuwait from year 2000 to 2014 depict a roller coaster ride. The inflow of FDI in Kuwait increased from 0.143 percent in the year 2011 to 0.153 percent in the year 2012. It demonstrated a decreasing trend when Kuwait's FDI share in the world FDI topped down from 0.73 percent in the year 2013 to 0.32 percent in the year 2014.

In addition, Kuwait's economy remains almost entirely dependent on oil, which accounts for an estimated 90% of exports and government revenues. The oil sector directly comprises over 50% of the country's GDP, although if other related activities are taken into account, that proportion is even higher. Kuwait's economic performance will remain largely determined by oil industry trends. As the impact, Kuwait has historical savings of oil profits and are accumulated in the Kuwait Investment Authority (KIA), the sovereign wealth fund. KIA comprises the General Reserve Fund (GRF) and the Future Generations Fund (FGF). GRF contains government holdings in several domestic enterprises alongside some portfolio and cash investments that can be deployed for general budget use by the government.

## H. Qatar

Qatar is one of the world's wealthiest energy-producing nations. Qatar is ranked 30<sup>th</sup> in the United Nations Global Competitiveness Index with the highest per capita income in the world and over the past five decades the country has experienced a rapid transformation. Embracing the digital economy in Qatar has been advancing rapidly. To direct government's investment in the sectors, entrepreneurs and SMEs are reaping the benefits from a range of incubation and acceleration programs. These programs, which include the Digital Incubation Center, Qatar Science and Technology Park, Qatar Business Incubation Center and Qatar University. (Qatar Digital Investment Opportunities, 2019).

As a one of the biggest Muslim investment in the world, Qatar has built QIA (Qatar Investment Authority) in the 2005. Qatar Investment Authority approach focused mainly on pursuing strategic opportunity in high-quality and for the 'Qatar Investment Authority' mission to develop investment. According to Qatar Economics Outlook (2019) showed that foreign the outflows of investors residing in Qatar are higher than inflows from non-resident investors abroad during (2017-2019). As the impact, net portfolio account witnessed both surpluses and deficit in this period. However, foreign investment in the Qatar's stock exchange rate

increased during some periods. Increasing Qatar foreign liabilities which include QR 1.1 billion in 2017, QR 8.3 billion in 2018, and by about QR 5 billion in 2019.

## RESULT

### A. Interpretation of Regression Analysis

In this research use the panel data analysis model to get the goals of this research. The advantage of using the panel data analysis can give more information and also it is concerning in the cross-section and time series analysis. There are four benefits by using the panel data analysis. First, the panel data give more available information on the result of analysis, greater variability, less collinearity each variable, more efficiency and more degrees of freedom.

Second, the panel data is better able to study comparing than just only cross section data. Third, the panel data is better able to identify and the effect are simply not detectable in pure cross section and time series data. Fourth, the panel data allow the construction and it is more complicated behavioral model than purely cross section data and time series data. Additionally, using by the panel data models can be made more easily and more naturally when the data is missing by utilizing more information.

#### 1. Multicollinearity

The function of multicollinearity that to get the information or to know what is the effect of each independent variables. In this model use the views 11 to detect the effect of each independent variables. The multicollinearity test is important to conduct it. Because the model use more than one independent variables.

**Table 5.1.**

The result of Multicollinearity Test by using Real Exchange Rate

**Table 5.1.**

The result of Multicollinearity by using USD

Country	Malaysia	Saudi Arabia	UAE	Indonesia	Jordan	Bahrain	Kuwait	Qatar
Malaysia	1	0.55344959	0.1196856	-0.1196856	-0.6337813	0.56979902	-0.7062556	0.08516984
Saudi Arabia	-0.5534939	1	0.02875055	0.49619388	0.34430730	-0.7551911	0.94522010	-0.5091257
UAE	-0.1883168	0.02875055	1	-0.9644299	0.0798220	-0.0648552	-0.1042697	-0.02660002
Indonesia	-0.11979902	0.49619388	-0.6944299	1	0.02561682	-0.1049781	0.60485094	-0.1877838
Jordan	-0.6337813	0.34430730	0.07982220	0.02561682	1	-0.7481074	0.34335883	0.52713022
Bahrain	0.56979902	-0.7551911	-0.0648552	-0.1049781	-0.7481074	1	-0.6529345	0.09708060
Kuwait	-0.7062556	0.94522010	-0.1042697	0.60485094	0.34335883	-0.6529345	1	-0.5020604
Qatar	0.08516584	-0.5091257	-0.02660002	-0.1877838	0.52713022	0.09708060	0.09708060	1
Country	Malaysia	Saudi Arabia	UAE	Indonesia	Jordan	Bahrain	Kuwait	Qatar
Malaysia	1	-0.7541328	0.07252617	0.5880483	-0.0986195	0.50282168	-0.5983157	0.04048808
Saudi Arabia	0.07541328	1	0.30804300	0.81624147	-0.5013269	-0.6604939	0.73458407	-0.4076319
UAE	0.07252617	0.30804300	1	0.10512858	-0.2088679	-0.5758867	0.72597324	-0.4185739
Indonesia	0.5880483	0.81624147	0.10512858	1	-0.4789032	-0.1605217	0.55800808	-0.2534797
Jordan	-0.0986195	-0.5013269	-0.2088679	-0.4789032	1	0.28824233	-0.0477013	0.71981790
Bahrain	0.50282168	-0.6604939	-0.5758867	-0.1605217	0.28824233	1	-0.6487532	0.61177952
Kuwait	-0.5983157	0.73458407	0.72597324	0.55800808	-0.0477013	-0.6487532	1	-0.2182134
Qatar	0.04048808	-0.4076319	-0.4185739	-0.2534797	0.71981790	0.61177592	-0.2182134	1

Source : Eviews 11 (Model 1)

**Table 5.2.**The Result of Multicollinearity by using USD  
Exchange Rate Currency

Source : Eviews 11 (Model 2)

assumpt that the analysis regression model in this research is free from heteroscedasticity test. In the other words, there is no symptoms of heteroscedasticity.

According to the model I and model II, The assumption of multicollinearity test is if the value of  $\alpha > 0.9$  it can be assumpt that there is multicollinearity test but if the value of  $\alpha < 0.9$  it is free from multicollinearity test. According the table shows that the value of multicollenearity r test less than  $\alpha = 0.9$ . It can be concluded that there is no symptom of multicollenarity or the assumption of variance multicollenearity is fulfilled.

## 2. Heteroscedasticity

According to Wooldgridge (2002) mentioned that if heteroscedasticity is detected in the panel data model but serial correlation is not. The heteroscedasticity-robust sandar errors and test statistic can be used along with the appropriate estimation technique. In this analysis method is used appropriate panel data like feasible general least square (FGLS) and regression with panel corrected standard errors (PCSE). In this case shows that the heteroscedasticity model fitted with (FGLS and PCSE).

### A. Analysis Model of Panel Data

In this research use the data panel regression to estimate the data. In this method that use three method, such as common effect model, fixed effet model and random effect model. Common effect model is called by Ordinary Least Square (OLS) . it is a little quadrat technique, Fiixed effect model which often mention as technique Least Square Dummy Variable (LSDV), and Random effect model can be mentioned that Error Componet Model (ECM) or Generalized Least Square (GLS). The goals for this research is to compare both fixed effect model and random effect model and it is also to know the best model or appropriate model from the three of model to use for this research (common, fixed and random effect model).

**Table 5.3.**

The Result of Heteroscedasticity Regression Analysis on Real Exchange Rate

Variable	Coeffisien	Standar Error	t-Statistic	Probability
CPI?	93.97310	59.34472	1.583512	0.1223
POL?	-1718575	49.60040	-0.346484	0.7311
INF?	-10.31054	495.5600	0.020806	0.9835
EXR?	1.013641	0.192675	0.067961	0.1010
FD?	510.1190	7506.086	-0.346484	0.9462

Source : Eviews 11 (Model I)

**Table 5.4.**

The Result of Heteroscedasticity Analysis on Domestic Exchange Rate (USD)

Variable	Coeffisien	Standard Error	t-Statistic	Probabilit y
CPI?	83.70739	74.33250	1.126121	0.2678
POL?	7.325467	65.67214	0.111546	0.9118
INF?	527.2973	632.8377	0.833227	0.4104
EXR?	1075.710	485.8652	2.214008	0.3034
FD?	-3478.746	9763.353	-0.356306	0.7238

Source : Eviews 11 (Model II)

According to the table, model I and model II shows that there are a different value of of independent variable on exchange rate and almost the value of probability is higher than  $\alpha = 0.05$ , in this case, it can be

**Table 5.5.**

Regression Analysis FEM, REM, and CEM on Real Exchange Rate

<b>Variable</b>	<b>Common Effect Model (CEM)</b>	<b>Fixed Effect Model (FEM)</b>	<b>Random Effect Model (REM)</b>
<b>Constanta</b>	<b>-25112.37</b>	<b>-31612.47</b>	<b>-29511.56</b>
Standard Error	5104.352	5383.995	6186.688
Probability	0.0000	0.0000	0.0002
<b>Corruption Perception Index (CPI)</b>	<b>284.5341</b>	<b>296.9114</b>	<b>265.7622</b>
Standard Error	64.69502	64.77590	64.77631
Probability	0.0001	0.0001	0.0002
<b>Political Stability (POL)</b>	<b>-118.5615</b>	<b>-133.5293</b>	<b>-126.4859</b>
Standard Error	48.71247	48.53230	48.61573
Probability	0.0230	0.0105	0.0136
<b>Inflation (INF)</b>	<b>127.0197</b>	<b>-335.1950</b>	<b>-161.8685</b>
Standard Error	289.4029	315.2206	443.3557
Probability	0.6635	0.2970	0.7173
<b>Real Exchange Rate</b>	<b>1.417996</b>	<b>1.463915</b>	<b>1.373460</b>
Standard Error	0.101964	0.0973736	0.184415
Probability	0.0000	0.0000	0.0000
<b>Financial Development (FD)</b>	<b>92222.27</b>	<b>55385.22</b>	<b>45659.48</b>
Standard Error	10010.45	10506.52	12304.09
Probability	0.0002	0.0000	0.0007
<b>R<sup>2</sup> (R – Square)</b>	<b>0.550872</b>	<b>0.848237</b>	<b>0.545583</b>
<b>F – Statistic</b>	<b>13.79854</b>	<b>15.47787</b>	<b>13.50702</b>

for different constant for each section. It has been tested by using standar F Test. The null hypothesis is that all the constant are same. Fixed effect model use the cross sectional effect to estimate dummy variable and the region.

**Table 5.6.**  
Regression Analysis of FEM, REM and CEM on  
Domestic Exchange Rate Currency (USD)

Variable	Common Effect Model (CEM)	Fixed Effect Model (FEM)	Random Effect Model (REM)
<b>Constanta</b>	<b>-3726.15</b>	<b>-40949.25</b>	<b>-26279.95</b>
Standard Error	8871.689	9831.887	9885.539
Probability	0.0002	0.0003	0.0119
<b>Corruption Perception Index (CPI)</b>	<b>407.7288</b>	<b>411.0925</b>	<b>251.1257</b>
Standard Error	104.8961	114.9381	95.29021
Probability	0.0004	0.0013	0.0126
<b>Political Stability (POL)</b>	<b>-143.2517</b>	<b>-126.4557</b>	<b>-66.21154</b>
Standard Error	66.34808	556.5978	101.3039
Probability	0.0380	0.6566	0.3341
<b>Inflation (INF)</b>	<b>479.9300</b>	<b>-250.2635</b>	<b>101.3039</b>
Standard Error	451.0322	547.2185	658.3068
Probability	0.2948	0.0000	0.8786
<b>Real Exchange Rate</b>	<b>2504.165</b>	<b>2898.870</b>	<b>2131.092</b>
Standard Error	501.0050	15041.59	604.1084
Probability	0.0000	0.0010	0.0012
<b>Financial Development (FD)</b>	<b>48970.24</b>	<b>55407.16</b>	<b>37836.42</b>
Standard Error	14100.78	68.79921	17772.09
Probability	0.0014	0.0771	0.0406
<b>R<sup>2</sup> (R – Square)</b>	<b>0.286585</b>	<b>0.765970</b>	<b>0.371718</b>
<b>F – Statistic</b>	<b>4.519228</b>	<b>9.063597</b>	<b>6.655968</b>
<b>Probability</b>	<b>0.003735</b>	<b>0.000000</b>	<b>0.000269</b>
<b>Durbin Watson</b>	<b>0.926791</b>	<b>2.280194</b>	<b>1.182455</b>

Source : Eviews 11 ( Model II)

### 1. Common Effect Model

Common Effect Model or it can be called by Pooled Ordinary Least Square (OLS) is to estimate the data panel that is by using simple model. In this model explained that the data on different individuals are simply pooled, no provision for individual differences that might lead to different coefficients. The model is to combine between cross-section data and time series data. The principle of assumption for common effect model is no different among the data matricks and the cross sectional dimension and it is useful under the hypothesis.

### 2. Fixed Effect Model

The constant of the fixed effect model is treated as section. The fixed effect model allows

### 3. Random Effect Model

The random effect model is a function of a mean value plus a random error. The random effect is one way to handle the ignorance or error in panel data model. Nevertheless, the cross-sectional unit must be uncorrelated with the error of the variable if this model is chosen to analysis the data model. The time series cross-sectional regression model is one with an intercept that a random effect. Generally, to know the best model between fixed effect model or random effect model can use a hausman test statically in the analysis regression.

<b>Exchange Rate (USD)</b>	Cross-section F	1.384365	(7.27)	(0.0000)

**a. Hausman Test**

The function of hausman test in panel data analysis is used to compare the fixed effect and random effect model as a best model in the panel data model. The hausman test is rejected or fail to accepted the null hypothesis if the value of prob-chi square > 0.05, so the model is random effect. But, if the value of prob-chi square less than, the model is fixed effect model. In this model can be assumed as :

Ho = Random Effect Model

H1 = Fixed Effect Model

**Table 5.7.**

The value of Chi Square of Hausman Tets

No		<b>Real Exchange Rate</b>	<b>Exchange Rate (USD)</b>
1	Test Summary	<b>Chi-Square Pro</b>	<b>Chi-Square Pro</b>
2	Cross-Section Random	2.168798	2.166476
3	Probability	(0.0000)	(0.0000)

Based on the table can be conclude that the value of chi-square probability for all of equations, real exchange rate and exchange rate (USD) is = 0.0000. The value of chi-square less than 0.05. Ho is rejected or fail to accepted the null hypothesis. So, it means, the confidence level is 95%. In tthis case, fixed effect model is better than random effect model or fixed effect model is more confidence to choose for this data panel analysis. In other words, this model suitable to use **Fixed Effect Model**.

**b. Chaw Test ( F-Test)**

The Chaw Test (F-Test) is to estimate fixed effect model and common effect model. The function this model is to use compare what is better fixed effect model than common effect model. This model will compare the value of F calculate by F table. It can be assumed as

Ho= Common Effect Model or Pooled Model (PLS)

H1 = Fixed Effect Model

**Table 5.8.**

The Result of Chaw Test Regression Analysis

	<b>Effect Test</b>	<b>Statistic</b>	<b>d.f</b>	<b>Probab ility</b>
<b>Real Exchange rate</b>	Cross-section F	1.982493	(7,27)	(0.0000)

**Parameter Test can be estimate as**

1. If the F- table > F –calculate. Ho is can not be rejected and H1 is rejected
2. If the F-table < F – calculate. Ho is rejected and H1 is can not be rejected

Ho = rejected if the value of probability less than  $\alpha$

H1 = can not be rejected if the value of probability higher than  $\alpha$

The value of  $\alpha$  is 5% or 0.05. so, the formulation for this model can be written as

$$F = \frac{(SSE_1 - SSE_2)}{\frac{SSE_2}{nt - n - k}}$$

where :

SSE1 = Sum Square Error Common Effect Model

SSE2 = Sum Square Error Fixed Effect Model

n = Region (cross section)

nt = Region x Time (cross section x time series)

k = Independent Variable

based on the formulation, can be calculated as

$$F = \frac{(6.21 - 5.88) / 7}{5.88 / 48 - 6} = 3.206993 \quad (\text{Real Exchange Rate})$$

Determine F table

F- Table = {  $\alpha$  : df ( n - 1, nt - n - k ) }

= { 5% : ( 8 - 1, 8 x 5 - 8 - 5) }

= 5% : ( 7, 27)

= 3,54

$$F = \frac{(1.08 - 1.17) / 7}{1.17 / 48 - 6}$$

$$= 4.615376 \quad (\text{Domestic exchange rate (USD)})$$

$$F\text{-Table} = \{ \alpha : df(n-1, nt-n-k) \}$$

$$= \{ 5\% : (8-1, 8 \times 5 - 8 - 5) \}$$

$$= 5\% : (7, 27)$$

$$= 3.54$$

Based on from the calculation above, it can be assumed that the value of F- table is 3.54 and numerator of F table is 9 and 36 in  $\alpha$

= 5%. According to the hypothesis, can be concluded that  $H_0$  is rejected or fail to accepted. So, the model will be used **Fixed Effect Model** for this research.

The equation for this model can be written as

$$FDI_{it} = \alpha + \beta_1 CPI_{it} + \beta_2 INF_{it} + \beta_3 EXR_{it} + \beta_4 GDP_{it} + \epsilon$$

Where :

- $\alpha$  = Constant
- $\beta_1 CPI$  = Corruption Perception Index
- $\beta_2 INF$  = Inflation
- $\beta_3 EXR$  = Exchange Rate
- $\beta_4 GDP$  = Gross Domestic Product
- $i$  = Region
- $t$  = Time
- $\epsilon$  = Error Term

The model for this regression can be assumed as :

#### Model I

$$FDI_{it} = -31612.47 + 296.9114\_CPI_{it} + (-133.5293)\_POL_{it} + (-335.1950)\_INF_{it} + 1.463915\_EXR_{it} + 55385.22\_FD_{it} + \epsilon$$

#### Model II

$$FDI_{it} = -40949.25 + 411.0925\_CPI + (-126.4557)\_POL + (-250.2635)\_INF + 2989.870\_EXR + 55407.16\_FD + \epsilon$$

### B. The Result of Regression Panel Data

The result of regression model can be concluded that fixed effect model is better than common effect model. Based on this explanation

the result of regression from fixed effect model can be shape in the table,

Variable	Coefficient	Standard Error	t - Statistic	Probability
Constant value	-31612.47	5383.995	-5.872.000	0.0000
CPI?	296.9114	64.77590	4.583620	0.0001
POL?	-133.5293	48.53230	-2.751398	0.0105
INF?	-335.1950	315.2206	-1.063360	0.2970
EXR?	1.463915	0.097736	1.373460	0.0000
FD?	55385.22	10506.52	5.271509	0.0000
R <sup>2</sup> (R - Square)				0.911972
Probability (F - Statistic)				0.000000

**Table 5.9.**

Fixed Effect Model on Real Exchange Rate

Source : Eviews 11 ( Model I)

**Table 5.10.**

Fixed Effect Model on USD Rate

Variable	Coefficient	Standard Error	t - Statistic	Probability
Constant	-40949.25	9831.887	-4.164944	0.0003
CPI?	411.0925	114.9381	3.576645	0.0013
POL?	-126.4557	556.5978	-1.838040	0.6566
INF?	-2502635	547.2185	0.449631	0.0000
EXR?	2898.870	15041.59	5.297463	0.0010
FD?	55407.16	68.79921	3.683598	0.0771
R <sup>2</sup> (R - Square)				0.658256
Probability				0.000756

Source : Eviews 11 ( Model II)

According to this table above, the table model I and model II can be concluded that the data analysis model give effect and influence for the independent variable each country. Based on this estimation the formulation for this regression can be write such as ;

$$FDI_{it} = \alpha + \beta_1 CPI_{it} + \beta_2 POL_{it} + \beta_3 INF_{it} + \beta_4 EXR_{it} + \beta_5 FD_{it} + \epsilon$$

Where :

$\alpha$  = Constant

CPI = Corruption Perception Index

INF = Inflation

EXR	= Exchange Rate
GDP	= Gross Domestic Product
POL	= Political Stability
FD	= Financial Development

increasing the value of real exchange rate at 1%. It will give influence of FDI around 1.463915. in this case, can be concluded that there is a positive correlation between Real Exchange Rate on FDI inflows.

In this estimation, the equation for the fixed effect model **on FDI by using Real Exchange Rate** can be written as :

$$= -31612.47 + 296.9114\_CPI + -133.5293\_POL + -335.1950\_INF + 1.463915\_EXR + 55385.22\_FD + e$$

$\beta_0$  = The value of constant (-31612.47) can be interpreted if the independent variables, which include (Corruption Perception Index, Political Stability Inflation, Exchange Rate, and Financial Development) are constant or there are not change on the independent variable, the amount of FDI is (-31612.47).

$\beta_1$  = If The value of the variable of Corruption Perception Index is 296.9114. It can be assumed that each increasing the value of CPI at 1%. It will give impact on FDI at around 296.9114. in this case, it can be concluded that there is a positive impact between CPI on FDI inflows.

$\beta_2$  = If the value of the variable of Political Stability is (-133.5293). It means the Political Stability can give influence each increasing the value of FDI at (1%). It can be concluded that there is a negative impact between Political Stability on FDI inflows.

$\beta_3$  = If the value of the variable of inflation is (-335.1950). In this case, can be assumed that Inflation will give impact on FDI at 1% each increasing the value of inflation rate at 1%. So, the conclusion is a negative correlation between Inflation on FDI inflows.

$\beta_4$  = If the value of the variable of Real Exchange Rate is 1.463915. So, the assumption is each

$\beta_5$  = If the value of the variable of Financial Development is 55385.22. So, the assumption is each increasing the value of financial development at 1%. It will give influence of FDI around 55385.22. The conclusion is a significant positive correlation between Financial Development on FDI inflows.

The equation for fixed model **on FDI by using USD Exchange Rate** can be estimated as

$$= -40949.25 + 411.0925\_CPI + (126.4557)\_POL + (250.2635)\_INF + 2989.870\_EXR + 55407.16\_FD + e$$

$\beta_0$  = If the value of constant is (-40949.25), the independent variable, which include (Corruption Perception Index, Political Stability, Inflation, USD rate Currency and Financial Development) are constants or there is no change the value of each variable. In this case, it can be concluded that the value of FDI is (-40949.25).

$\beta_1$  = If the value of the variable Corruption Perception Index is 411.0925. It can be assumed that each increasing the value of CPI at 1%. It can be impact on FDI inflows around 411.0925%. In this case, it can be concluded that a significant positive correlation between CPI on FDI inflows.

$\beta_2$  = If the value of the variable political stability is (-126.4557). it can be assumed that each increasing the value of Political Stability at 1%. It will influence the FDI rate around (-126.4557%). The

conclusion in this case is a positive significant correlation between Political Stability on FDI inflows.

$\beta_2$  = If the value of the variable of Inflation is (-250.2635). The assumption is each increasing the value of inflation at 1%. It will be impact on FDI around (-250.2635). In this case, it can be concluded that there is a significant positive correlation between Inflation on FDI inflows.

$\beta_3$  = If the value of the variable of USD rate is 2989.870. It will be impact on FDI is 2989.870 each increasing the value of USD rate currency at 1%. So, it can be concluded that there is a significance positive influence between USD rate on FDI inflows.

$\beta_4$  = If the value of the variable of Financial Development is 55407.16. It will give impact on FDI is 55407.16% each increasing the value of financial development at (1%). The conclusion is a significance positive correlation between Financial Development on FDI inflation.

Country	The value of constanta each region	Independent variabel	Coefficient
Malaysia	867.4535	Constanta	-31612.47
Saudi Arabia	-1455.005		
United Emirate Arab	-1723.692	Corruption Perception Index (CPI)	296.9114
Indonesia	180.7466		
Jordan	-126.5501	Political Stability (POL)	-133.5295
Bahrain	3049.554		
Kuwait	-2708.647	Inflation (INF)	-335.1950
Qatar	1916.339		
		Exccange Rate (EXR)	1.463915
		Financial Development (FD)	55385.22

**Table 5. 11.**  
The influence of Regional impact (Country) on Real Exchange Rate  
Source : Eviews 11 ( Model II)

Based on the table, can be assumed the equation for this model such as

- $$FDI_{(Malaysia)} = 867.4535_{(Regeffect)} + 31612.47_{(Constanst)} + 296.9114_{CPI(Malaysia)} + (133.5295)_{POL(Malaysia)} + (133.5295)_{INF(Malaysia)} + 1.463915_{EXR(Malaysia)} + 55385.22_{FD(Malaysia)}$$
- $$FDI_{(Saudi Arabia)} = -1455.005_{(Regeffect)} - 31612.47_{(Constanst)} + 296.9114_{CPI(Saudi Arabia)} + (-133.5295)_{POL(Saudi Arabia)} + (133.5295)_{INF(Saudi Arabia)} + 1.463915_{EXR(Saudi Arabia)} + 55385.22_{FD(Saudi Arabia)}$$
- $$FDI_{(UAE)} = -1723.692_{(Regeffect)} + 31612.47_{(Constanst)} + 296.9114_{CPI(UAE)} + (-133.5295)_{POL(UAE)} + (133.5295)_{INF(UAE)} + 1.463915_{EXR(UAE)} + 55385.22_{FD(UAE)}$$
- $$FDI_{(Indonesia)} = 180.7466_{(Regeffect)} + 31612.47_{(Constanst)} + 296.9114_{CPI(Indonesia)} + (133.5295)_{POL(Indonesia)} + (133.5295)_{INF(Indonesia)} + 1.463915_{EXR(Indonesia)} + 55385.22_{FD(Indonesia)}$$
- $$FDI_{(Jordan)} = -126.5501_{(Regeffect)} - 31612.47_{(Constanst)} + 296.9114_{CPI(Jordan)} + (-133.5295)_{POL(Jordan)} + (133.5295)_{INF(Jordan)} + 1.463915_{EXR(Jordan)} + 55385.22_{FD(Jordan)}$$
- $$FDI_{(Bahrain)} = 3049.354_{(Regeffect)} - 31612.47_{(Constanst)} + 296.9114_{CPI(Bahrain)} + (-$$

$$133.5295)_{POL(Bahrain)} + (133.5295)_{INF(Bahrain)} + 1.463915_{EXR(Bahrain)} + 55385.22_{FD(Bahrain)}$$

$$2989.870_{EXR(Indonesia)} + 55407.16_{FD(Indonesia)}$$

$$7. FDI_{(Kuwait)} = -2708.647_{(Regeffect)} + 31612.47_{(Constanst)} + 296.9114_{CPI(Kuwait)} + (-133.5295)_{POL(Kuwait)} + (133.5295)_{INF(Kuwait)} + 1.463915_{EXR(Kuwait)} + 55385.22_{FD(Kuwait)}$$

$$8. FDI_{(Qatar)} = 1916.339_{(Regeffect)} + 31612.47_{(Constanst)} + 296.9114_{CPI(Qatar)} + (-133.5295)_{POL(Qatar)} + (133.5295)_{INF(Qatar)} + 1.463915_{EXR(Qatar)} + 55385.22_{FD(Qatar)}$$

**Table 5. 12.**

The influence of Regional impact (Country) on USD Rate

Country	The value of constanta each region	Independent variable	Coefficient
Malaysia	2044.656	Constanta	-40949.26
Saudi Arabia	-2401.109		
United Emirate Arab	-3099.279		
Indonesia	2113.993		
Jordan	-888.8355		
Bahrain	3770.290	Corruption Perception Index (CPI)	411.0929
Kuwait	-3084.303	Political Stability (POL)	-125.4557
Qatar	1544.587		
		Inflation (INF)	-250.2635
		Excgange Rate (EXR)	2989.870
		Financial Development (FD)	55407.16

Source : Eviews 11 (Model II)

Based on the table, can be assumed the equation for this model such as

$$1. FDI_{(Malaysia)} = 2044.656_{(Regeffect)} + 40949.26_{(Constanst)} + 411.0929_{CPI(Malaysia)} + (-125.4557)_{POL(Malaysia)} + (2502635)_{INF(Malaysia)} + 2989.870_{EXR(Malaysia)} + 55407.16_{FD(Malaysia)}$$

$$2. FDI_{(Saudi Arabia)} = -2401.109_{(Regeffect)} + 40949.26_{(Constanst)} + 411.0929_{CPI(Saudi Arabia)} + (125.4557)_{POL(Saudi Arabia)} + (2502635)_{INF(Saudi Arabia)} + 2989.870_{EXR(Saudi Arabia)} + 55407.16_{FD(Saudi Arabia)}$$

$$3. FDI_{(UAE)} = -3099.279_{(Regeffect)} + 40949.26_{(Constanst)} + 411.0929_{CPI(UAE)} + (-125.4557)_{POL(UAE)} + (2502635)_{INF(UAE)} + 2989.870_{EXR(UAE)} + 55407.16_{FD(UAE)}$$

$$4. FDI_{(Indonesia)} = 2113.993_{(Regeffect)} + 40949.26_{(Constanst)} + 411.0929_{CPI(Indonesia)} + (-125.4557)_{POL(Indonesia)} + (2502635)_{INF(Indonesia)} + 2989.870_{EXR(Indonesia)} + 55407.16_{FD(Indonesia)}$$

$$5. FDI_{(Jordan)} = -888.8355_{(Regeffect)} + 40949.26_{(Constanst)} + 411.0929_{CPI(Jordan)} + (-125.4557)_{POL(Jordan)} + (2502635)_{INF(Jordan)} + 2989.870_{EXR(Jordan)} + 55407.16_{FD(Jordan)}$$

$$6. FDI_{(Bahrain)} = 3770.290_{(Regeffect)} + 40949.26_{(Constanst)} + 411.0929_{CPI(Bahrain)} + (-125.4557)_{POL(Bahrain)} + (2502635)_{INF(Bahrain)} + 2989.870_{EXR(Bahrain)} + 55407.16_{FD(Bahrain)}$$

$$7. FDI_{(Kuwait)} = 3770.290_{(Regeffect)} + 40949.26_{(Constanst)} + 411.0929_{CPI(Kuwait)} + (-125.4557)_{POL(Kuwait)} + (2502635)_{INF(Kuwait)} + 2989.870_{EXR(Kuwait)} + 55407.16_{FD(Kuwait)}$$

$$8. FDI_{(Qatar)} = 1544.587_{(Regeffect)} + 40949.26_{(Constanst)} + 411.0929_{CPI(Qatar)} + (-125.4557)_{POL(Qatar)} + (2502635)_{INF(Qatar)} + 2989.870_{EXR(Qatar)} + 55407.16_{FD(Qatar)}$$

According to the equation in this model, (Equation 1 and Equation II), can be explained that the influence of independent variables of Corruption Perception Index, Political Stability, Inflation, Exchange Rate, and Financial Development on foreign direct investment in every countries, which include (Malaysia, Saudi Arabia, United Arab Emirate, Indonesia, Jordan, Bahrain, Kuwait and Qatar). Based on the equation can be understood that, in every country has a different value of independent variable. It caused that there is a different culture, social environment, politics system, rule and regulation for the law of control of corruption and economics activities in every country.

- a. Malaysia, based on the equation above can be concluded that when the value of coefficient of Malaysia on real exchange rate is 867.4535 and the value of constant is (-31612.47). The value of coefficient of Malaysia on USD rate is 2044.656 and the value of constant is -40949.26. It can be assumed that each increasing or decreasing the value of independent variable such as corruption perception index, political stability, inflation, exchange rate and financial development can be impact on foreign direct investment inflows for the Malaysian country at around 867.4535% by using real exchange rate and at 2044.656% by using domestic exchange rate (USD).
- b. Saudi Arabia, according to the equation show that if the value of coefficient of Saudi Arabia on real exchange rate is (-1455.005) and the value of constant is (-40949.26). Additionally, the value of coefficient of Saudi Arabia on USD rate is (-2401.109) and the value of constant is (-40940.26). It can be concluded that each increasing or decreasing the value of independent variable like corruption perception index, political stability, inflation, exchange rate and financial development can give more influence on foreign direct investment inflows for the Saudi Arabia country at 1455.005% by using real exchange rate and at 2401.109% by using USD rate.
- c. United Arab Emirate, in the equation above explained that if the value of coefficient of United Arab Emirate country on real exchange rate is (-1723.692) and the value of constant is (-31612.47). Then, the value of coefficient of United Arab Emirate country on USD rate is (-3099.279) and the value of constant is (-40949.26). It can be assumed that each rising and reducing the value of

independent variable which include corruption perception, political stability, inflation, exchange rate and financial development. It will be influence on foreign direct investment inflows for the United Arab

Emirate country at 1723.692% by using real exchange rate and at 3099.279% by using USD rate.

- d. Indonesia, based on the equation can be understood that if the value of coefficient of Indonesia country on real exchange rate is 180.7466 and the value of constant is (-31612.47). Then, the value of coefficient of Indonesia country on USD rate is 2113.993 and the value of constant is 2113.993. It can be concluded that each rising or reducing the value of independent variable such as corruption perception index, inflation, exchange rate and gross domestic product will give influence on foreign direct investment inflows for the Indonesia country at 180.7466% by using real exchange rate and at 2113.993% by using USD rate.
- e. Jordan, the equation above shows that the influence of each independent variable on foreign direct investment inflows. Based on this case, can be assumed that if the value of coefficient of Jordan country on real exchange rate is (-126.5501) and the value of constant is (-31612.47). On the other side, the value of coefficient of Jordan country on USD rate is (-888.8355) and the value of constant is (-40949.26). It can be explained that each rising or reducing the value of independent variable like corruption perception index, political stability, inflation, exchange rate and financial development will be influence on foreign direct investment inflows for the Jordan country at 126.5501% by using real exchange rate and at 888.8355% by using USD rate.
- f. Bahrain, according to the equation mentioned that the correlation each independent variable of foreign direct investment inflows. The assumption is if the value of coefficient of Bahrain country on real exchange rate is 3049.354 and the value of constant is (-31612.47). Then, the value of coefficient of Bahrain country on USD rate is 3770.290 and the value of constant is (-40949.26). It can be concluded that there is a impact or influence each increasing or decreasing the value of independent variable which include corruption perception index, political stability, inflation, exchange rate and financial development on foreign direct investment inflows for the Bahrain country at 3049.354% by using real exchange rate and at 3770.290% by using USD rate.

$R^2$  for the real exchange rate and domestic exchange rate (USD) are 296.9114 and 411.0929. It can be assumed that the value of variety of the variable will be fit from dependent to independent variable at around 99%, which include corruption perception index, political stability, inflation, exchange rate and gross financial development.

- g. Kuwait, based on the equation in this model shows that if the value of coefficient of Kuwait country on real exchange rate is (-2748.647) and the value of constant is (-31612.47). Then, the value of coefficient of Kuwait country on USD rate is (-3084.303) and the value of constant is (-40949.26). It can be assumed that there is an impact or influence of the independent variable such as corruption perception index, political stability, inflation, exchange rate and financial development will give impact on foreign direct investment for the Kuwait country at 2748.647% by using real exchange rate and at 3084.303% by using USD rate.
- h. Qatar, according to the equation can be assumed that if the value of coefficient of Qatar country on real exchange rate is 1916.339 and the value of constant is (-31612.47). Then, the value of coefficient of Qatar country on USD rate is 1544.587 and the value of constant is (-40949.26). It can be concluded that it will be impact or influence of each increasing or decreasing the value of independent variable which include corruption perception index, political stability, inflation, exchange rate and financial development can encourage foreign direct investment inflows in the Qatar country at 1916.339% by using real exchange rate and at 1544.587% by using USD rate.

According to the equation for this regression analysis can be mentioned that there is a different cross section effect of each country in this analysis method. It has a positive and negative correlation for the cross section effect in every country. It can be seen from the amount of the coefficient regression analysis in this model. In this case, the conclusion from the analysis of regression can be assumed as

- a. The value of Probability (F – Statistic)  
Based on the result of fixed effect test, can be known that the value of F calculate for the real exchange rate and domestic exchange rate (USD) at around 0.000000. The value of Prob F – Statistic higher than  $\alpha$  5% (0.000000 > 0.05). It means the independent variable such as corruption perception index, inflation, exchange rate, and gross domestic product have a significance effect on FDI and it can be given more influence on foreign direct investment inflows.
- b. Determination of Coefficient Test ( $R^2$ )  
Based on the result of fixed effect model, can be explained that the value of

- c. Partial Regression (T – Test) and regression analysis

**Table 5.13.**

Statistic Test of Fixed Effect Model on Real Exchange Rate

Independent Variable	Coefficient	T – Statistic	Probability	Standard Probability
Corruption Perception Index	296.9114	64.77590	0.0001	5%
Political Stability	-133.5293	48.53230	0.2970	5%
Inflation	-335.1930	315.2206	0.0000	5%
Real Exchange Rate	1.463915	0.0097736	0.0000	5%
Financial Development	55385.22	10506.52	0.0105	5%

Source : Eviews 11 (Model 1)

**Table 5.14.**

Statistic Test of Fixed Effect Model on Domestic Exchange Rate (USD)

Independent Variable	Coefficient	T – Statistic	Probability	Standard Probability
Corruption Perception Index	411.0929	3.3176645	0.0013	5%
Political Stability	-126.4557	-1.838040	0.0771	5%
Inflation	-250.2635	-0.449631	0.6566	5%
Real Exchange Rate	2898.870	5.297463	0.0000	5%
Financial Development	55407.16	3.683598	0.0010	5%

Source : Eviews 12 (Model II)

According to the statistic table test of fixed effect model on the model I and model II can be assumed that the function of this model to know the effect or influence of the

independent variable on foreign direct investment which include corruption perception index, political stability, inflation, exchange rate and financial development. The conclusion for this estimation can be explained, such as :

1. Corruption Perception Index, the effect of CPI on foreign direct investment in this table explained that the value of independent variable of CPI is 296.914, the value of probability is 0.0001 and the value of standard probability is 5% by using real exchange rate. Then, the value of independent variable of CPI is 411.0929, the value of probability is 0.0013 and the value of standard probability is 5% by using USD rate. It means, the independent variable of corruption perception index has a positive effect on foreign direct investment inflows at around 296.9114% when the value of currency is used real exchange rate and it has a positive significance effect between corruption perception index on foreign direct investment inflows at 411.0929% when the value of currency is used domestic exchange rate (USD). In this case, it can be concluded that if there is a higher corruption perception index's score, it can influence the level of control of corruption and also can give influence for the foreign investors. As the result, it can increase the level of foreign direct investment at 296.9114% on real exchange rate currency and at 411.0929% on USD rate currency each increasing the value of corruption perception index at 1%.
2. Political Stability, the effect of political stability on foreign direct investment in this table explained that the value of independent variable of political stability is (-133.5293), the value of probability is 0.2970 and the value of standard probability is 5% by using real exchange rate. Then, the value of independent variable of political stability is -126.4557, the value of probability is 0.0771 and the value of standard probability is 5% by using USD rate. It means, the independent variable of political stability has a negative effect on foreign direct investment inflows at around 133.5293% by using real and USD exchange rate currency. In this case, it can be concluded that if higher the level of political stability, it can influence the political stability's score and also can give influence for the foreign investors. As the result, it can reduce the level of foreign direct investment at 133.5293% on real exchange rate currency and 126.4557% on USD rate currency each increasing the value of political stability at 1%.
3. Inflation, according to the table can be explained that the value of independent variable of inflation is -335.1930, the value of probability is 0.0000 and the value of standard probability is 5% by using the value of real exchange rate currency. Then, the value of independent variable of inflation is -250.2635, the value of probability is 0.6566 and the value of standard probability is 5% by using USD rate currency. Based on this estimation, can be assumed that the independent variable of inflation for real exchange rate and domestic exchange rate on foreign direct

investment has a negative significance effect at around 335.1930% and 250.2635% by using real and USD exchange rate currency. So, the conclusion is if the independent variable of inflation increase at 1%, it will influence for the foreign investors and it make reduce the level of foreign direct inflows.

4. Exchange rate (Real and USD rate currency), based on the table of statistic test of fixed effect can be assumed that if the value of independent variable of real exchange rate currency is 1.463915, the value of probability is 0.0000 and the value of standard probability is 5%. Then, the value of USD rate currency is 2898.870, the value of probability is 0.0000 and the value of standard probability is 5%. Based on the estimation, it can be explained that the independent variable of real exchange rate and USD rate currency have a significance positive correlation between real and USD rate on foreign direct investment inflows, if the value of real and USD rate increase at 1%, it can be influence on FDI inflows. Because, if the value of exchange rate increase, it will be impact for the price of bonds and make the foreign investors buy the bonds in the home or host countries, So it will encourage the the level of foreign direct investment inflows at around 1.463915% and 2898.870% each increasing the value of exchange rate at 1%.
5. Financial Development, according to the table of statistic test of fixed effect shows that the value of independent variable of financial development is 55385.22, the value of probability is 0.0105 and the value of standard probability is 5% by using the value of real exchange rate currency. Then, the value of independent variable of financial development is 55407.16, the value of probability is 0.0010 and the value of standard probability is 5% when use the USD rate currency. According to this estimation, it can be assumed that the independent variable of financial development for the real and USD exchange rate currency have a significance positive correlation between financial development on foreign direct investment inflows. In this case, it can be concluded that if higher the level of financial development, it can influence for the all of economics activities including financial institution in each country and also can give influence for the foreign investors. As the result, it can rise the level of foreign direct investment at 55385% on real exchange rate currency and at 55407.16% on USD rate currency each increasing the value of financial development at 1%.

### C. The Result of Regression Analysis

According to the result of regression analysis by using fixed effect model in this research can be concluded that there is a correlation between each independent variable such as corruption perception index, inflation, exchange rate (real and domestic) and gross domestic product on dependent variable (foreign direct investment). The function of this regression analysis to explain the result all of independent variable on dependent variable. Based on

this, the result of regression analysis can be interpreted such as :

the country can increase the FDI inflows and can encourage economics growth.

### **1. The correlation of corruption perception index on foreign direct investment**

The independent variable of corruption perception index has a significance positive effect on foreign direct investment inflows. It can be known that based on the value of probability of independent variable by using real and USD rate currency. The value of probability corruption perception index is 0.0001 and the value of coefficient is 296.9114 by using real exchange rate currency. Then, the value of probability of corruption perception index is 0.0013 and the value of coefficient is 411.0929 by using USD rate currency. In this case, it can be assumed that if higher the level of control of corruption, it can influence the corruption perception index score and also can give influence for the foreign investors, as the result, it can rise the level of foreign direct investment at 296.9114% on real exchange rate currency and at 411.0929% on USD rate currency. If higher the value of corruption perception index at 1%. In the other words, the value of independent variable of CPI will give more influence for the condition of foreign direct investment inflows in every country and it can be impact for all of economics sectors and give influence for economics growth in the country.

### **2. The correlation of political stability on foreign direct investment**

The independent variable of political stability has a significance negative correlation on foreign direct investment inflows. It can be known that based on the value of probability of independent variable by using real and USD rate currency. The value of probability corruption perception index is 0.0001 and the value of coefficient is 296.9114 by using real exchange rate currency. Then, the value of probability of corruption perception index is 0.0013 and the value of coefficient is 411.0929 by using USD rate currency. In this case, it can be assumed that if higher the level of political stability, it can influence the political instability score and also can give influence for the foreign investors. As the result, it can reduce the level of foreign direct investment at 296.9114% on real exchange rate currency and at 411.0929% on USD rate currency. Because the value of political stability score is reflected by the political instability's score, the score of political stability between 0-100. Zero indicates less develop political stability and 100 indicates highly political stability. good political stability in

### **3. The correlation of inflation on foreign direct investment**

The correlation of inflation on foreign direct investment based on the regression analysis can be explained that there is a negative correlation between inflation on foreign direct investment inflows. It can be shows that based on the value of probability of inflation is 0.0000 and the value of coefficient of inflation is (-335.1930) by using the real exchange rate currency. Then, if the probability of inflation is 0.6566 and the coefficient is (-250.2635) by using USD rate currency. In this case can be assumed that if the value of inflation increase at 1% it will reduce for the level of foreign direct investment inflows at around 335.1930% and 250.2635%. Based on this condition, the researcher argued that inflation is one of the most important for the macroeconomics indicator. Inflation can give more influence not only for foreign direct investment but also for the economics activities. So, if higher the value of inflation will be influence for the foreign investors and can reduce the level of foreign direct investment inflows. As the result, it can be impact for the economics growth in the country.

### **4. The correlation of exchange rate ( Real and USD rate currency) on foreign direct investment**

The correlation of real exchange rate and domestic exchange rate(USD) based on the regression analysis can be assumed that there is a positive correlation between real exchange rate and foreign direct investment inflows. It can be shows that based on the value of probability of real exchange rate is 0.000 and the value of probability of domestic exchange rate (USD) is 0.0000. Then the value of coefficient both of independent variable real and domestic exchange rate at around 1.463915 and 2898.870. In this case, it can be concluded that if the value of independent variable of real and USD rate currency at 1%. It will be impact to increase for the level of foreign direct investment inflows at around 1.463915% and 2898.870%. Real and domestic exchange rate is important for the economics systems regulation. It is one of the main macroeconomics variable indicators that can increase economics growth especially for the foreign direct investment inflows. Real and USD rate currency can give more influence for the export and import activities, increasing the competitiveness on trading.

that there is no significant effect between corruption perception index on foreign direct investment.

## 5. The correlation of financial development on foreign direct investment

The correlation of financial development on foreign direct investment can be seen based on the result of regression analysis in this study. according to this analysis can be assumed that there is a positive correlation on gross domestic product and foreign direct investment inflows. In this case, it can be known that if the value of probability of financial development is 0.0105 and the value of coefficient of financial development is 55385.22 by using real exchange rate currency. Then, if the value of probability is 0.0010 and the value of coefficient of financial development is 55407.16 by using USD rate currency. It will rise for the level of foreign direct investment inflows if the value of financial development increase at 1%. Financial development can be influence on foreign direct investment infows at around 55385.22% and 55407.16%. financial development is one of the main factor that can be influence the foreign investor to save their money or to buy the bonds in other country.

## CONCLUSION AND RECOMMENDATION

### A. Conclusion

Foreign Direct Investment inflows is a vital source of extenal funding for develop and developing countries. foreign direct investment inflows give more many implication especially for developing countries such as transfer of management skill, development of human capital, transfer of technology, increase local market competition, creater job opportunities and the most important can be provide foreign currency. Foreign diect investment has become increase economics growth, it can encourage all of economics activities. In additionally, foreign direct investment can promote global market competition for export commodities and corporate government.

1. Corruption perception index, The independent variable of corruption perception index has a significant negative correlation on foreign direct investment. It is based on by using rela and USD rate currency on foreign direct investment. Many studiess have been found that the correlation of corruption perception index on foreign direct investment such as Mauro (1995), based on his research mentioned that there is a positive effect corruption perception index on foreign direct investment inflows. In contrast with Robelo (1993) based on his research found

2. Political Stability, the independent variable of political stability by using rela and USD rate currency have a significant negative correlation on foreign direct investment based on this research analysis. It means the level of political syability score can reduce the level of foreign direct investment and leads to reduce economics growth in the develop and developing country. Similarly finding with analysed by Fosu (1992) , he found tahat a negative effect between political stability on economics growth and reduce FDi inflows. If a higher the level of political stability, it can encourage FDI inflows. Another study by Alesina and Paroti (1996) found that political stability had a negative effect on investment in a simple sample of 70 countries cover the time period from 1960 to 1985. In contrast, by Jafari et. al (2011) said that political stability had a significant positive correlation on FDI inflows in MENA countries.
3. Inflation, the independent variable of inflation by using real and domestic exchange rate (USD) has negative correlation effect on foreign direct investment. It means if the level of inflation rate reduce, it will reduce the level of FDI inflows. Inflation rate can changes the domestic or foreign invesment decision in a country. Additionally, Inflation rate can anticipate the net returns and optimal investment of the MNE. Analysed by Aschauer and Greenwood (1983) also argued that the domestic and foreign inflation can effect both domestic and foreign investment. Increased (foreign) inflation rate increases foreign or domestic investment. He mentioned that inflation causes an increase in opportunity cost of investment and reducing the cost of FDI.
4. Exchange rate (Real and USD rate currency ), the independent variable of real and USD rate currency have a significant positive correlation on foreign direct investment. According to the result of regression analysis in this study shows that real and USD rate currency give more impact on foreign direct investment inflows. Various research have been found the correlation exchange rate on foreign direct investment inflows. Among them argued that the value of echange rate has a significant correlation on foreign direct investment inflows such as campa (1993) has been conducted the research and he mentioned that if the value of exchange rate increase it can increase the home currency profits. It means a higher exchange rate can increase the foreign investment rate. Based

on this, it can be concluded that real and domestic exchange rate has a positive correlation on foreign direct investment inflows.

5. Financial Development, according to the result of regression analysis shows that the independent variable of financial development has a significant positive correlation on foreign direct investment. Financial development has become one of the reasons for the investor to save their money in the home country (domestic) or in the host country (foreign). The role of financial development in FDI growth-nexus collectively condition of an existence of well-developed financial system in a country. Furthermore, increasing the level of financial development can rise the level of foreign direct investment inflows for the host or home country. In analysed by Levine (1990) argue that the function of a developed financial system can allocate the resources, monitoring managers, mobilizing savings, reducing risk, and facilitating the exchange of goods and services. Additionally, financial development can attract more and more foreign direct investment and enhances economic growth.

The findings of this study, the author argued that good political stability in a country can influence for the control of corruption, can give more influence for the financial development, can maintain the value of exchange rate currency and the value of inflation rate and the most important, it can attract more and more foreign direct investment inflows. Additionally, in this study the author also mention about the different of exchange rates currency. There are two kinds of the exchange rate currency, real and USD rate currency. It is very important to discuss, it means to give more information especially for the government to reduce using the USD rate when the foreign or domestic investor invest their money in a country.

## **B. Research Limitation**

The limitation in this study is the researcher still use a simple model to know the correlation between independent variable on dependent variables. This study still limit for the previous study that relate in this study. the researcher is difficult to find the paper that pure relate with this study.

## **C. Recommendation**

According to this research can be explained that it has a different effect each every independent variable on dependent variable. Mostly, the effect of independent variable give a significance positive and negative influence for

the foreign direct investment inflows. This research use some independent variables to know what is effect and correlation on dependent variable. According to this research, there are some recommendation that improve foreign direct investment in all of element indicator that relate on foreign direct investment which include, The government, researcher, and investor (Foreign or Domestic investment).

1. Government, based on this research the government can build the good relationship in another muslim countries to improve foreign direct investment, can compare the rules, regulations and policies that relate on foreign direct investment, can promote and transfer of knowledge and technology, create the some laws to protect the investor (foreign and domestic investment).
2. Researcher, based on this research, the researcher can get some informations to improve another research to fulfill the gap in this research.
3. Investor (Foreign and Domestic Investment), according to this research, the investors (foreign and domestic investment) can get the information about foreign direct investment especially for the top ten muslim countries, can compare the level of foreign direct investment inflows in every country.

determination. *Journal of Political Economy* 91:868–75.

## REFERENCES

- Abed, G., and Davoodi, H. (2000) "Corruption, Structural Reforms and Economics Performance in the Transition Economies. "IMF Working Paper No. 132. Washington: International Monetary Fund.
- Adams, S. (2009), "Foreign direct investment, domestic investment, and economic growth in SubSaharan Africa", *Journal of Policy Modeling*, Vol. 31 No. 6, pp. 939-949.
- Aïssa, M.S.B., Olivier, M., Perea, J.C., "Modelling inflation persistence with periodicity changes in fixed and predetermined prices models", *Economic Modelling*, 24 (9) : 823-838, (2007). <https://doi.org/10.1016/j.econmod.2007.02.008>
- Aharoni, Y. (1966), "The Foreign Investment Decision Process", *Thunderbird International Business Review*, 8(4), 13-14.
- Albassam, Waleed. *Corporate governance, voluntary disclosure and financial performance: an empirical analysis of Saudi listed firms using a mixed-methods research design*. Diss. University of Glasgow, 2014.
- Alfaro, L., Chanda, A., Kalemli-Ozcan, S., Sayek, S. (2006). How Does Foreign Direct Investment Promote Economic Growth? Exploring the Effects of Financial Markets on Linkages (No. W12522). National Bureau of Economic Research
- Alfaro, L., Kalemli-Ozcan, S., & Sayek, S. (2009). FDI, productivity and financial development. *The World Economy*, 32(1), 111-135.
- Al-Marhubi, F.A. (2000) Corruption and inflation. *Economics Letters* 66, 199–202.
- Al-Sadiq A. (2009) The Effects of Corruption on FDI Inflows, *Cato Journal*, vol. 29, no.2:267-294.
- Akça, H., Ata, A. Y. & Karaca, C. Inflation and corruption relationship: Evidence from panel data in developed and developing countries. *Int. J. Econ. Financ. Issues* 2, 281–295 (2012).
- Ang, J. B. (2008a). Determinants of foreign direct investment in Malaysia. *Journal of Policy Modeling*, 30(1), 185–189.
- Anwar, S., & Nguyen, L. P. (2011). Foreign direct investment and export spillovers: Evidence from Vietnam. *International Business Review*, 20, 177–193
- Aschauer, David, and Jeremy Greenwood. 1983. A further exploration in the theory of exchange rate determination. *Journal of Political Economy* 91:868–75.
- Baharumshah, A. and M. Thanoon (2006). Foreign capital flows and economic growth in East Asian countries, *China Economic Review*. 17: 70-83.
- Basi, R. S. (1963), *Determinants of United States Private Direct Investment in Foreign Countries*, Kent, OH: Kent State University Press.
- Bayar, Y., Ozel, H.A. (2014) Determinants of Foreign Direct Investment Inflows in the Transition Economies of European Union, *International*
- Bayar, Yilmaz, and Naib Alakbarov. "Corruption and foreign direct investment inflows in emerging market economies." *Ecoforum Journal* 5.2 (2016).
- Beck, P., Maker, M. (1986), A Comparison of Bribery and Bidding in Thin Markets. *Economic Letters*, 20, 1-5.
- Bitzenis, A. (2006). Decisive barriers that affect multinationals business in a transition Country. *Global Business & Economics Review*, 8(1–2), 87–118.
- Bhandari, R., Dhakal, D., Pradhan, G., & Upadhyaya, K. (2007). Foreign Aid, FDI and economic growth in East European countries. *Economics Bulletin*, 6, 1–9
- Blomström, M and A Kokko (1998). Multinational corporations and spillovers. *Journal of Economic Surveys*, 12(3), 247–277.
- Blonigen, Bruce A. "A review of the empirical literature on FDI determinants." *Atlantic economic journal* 33.4 (2005): 383-403.
- Borensztein, E.; J. De Gregorio; and J.-W. Lee. 1998. "How Does Foreign Direct Investment Affect Economic Growth?" *Journal of International Economics* 45, no. 1: 115-135.
- Calderon, C., 2004. Trade Openness and Real Exchange Rate Volatility: Panel Data Evidence, Central Bank of Chile, working papers, p. 294
- Campa, J (1993). Entry by foreign firms in the United States under exchange rate uncertainty. *Review of Economics and Statistics*, 75, 614–622.
- Campos, J.E. and Lien, D., 'The Impact of Corruption on Investment: Predictability Matters', 1999, *World Development*, vol. 27, no. 6, pp. 1059-1076.
- Claessens, S., & Perotti, E. (2007). Finance and inequality: Channels and evidence. *Journal of Comparative Economics*, 35(4), 748–773. <https://doi.org/10.1016/j.jce.2007.07.002>
- Caves, R. (1996) *Multinational Firms and Economic Analysis* ( Cambridge University Press) 2<sup>nd</sup> edition.
- Choe JI. Do foreign direct investment and gross domestic

- investment promote economic growth?. Review of Development Economics. 2003 Feb;7(1):44-57.
- Cipollina, Maria, et al. "FDI and growth: What cross-country industry data say." *The World Economy* 35.11 (2012): 1599-1629.
- Cuervo-Cazurra, A. Better the devil you don't know: Types of corruption and FDI in transition economies. *J. Int. Manag.* **14**, 12–27 (2008).
- De Mello, Luiz R. "Foreign direct investment-led growth: evidence from time series and panel data." *Oxford economic papers* 51.1 (1999): 133-151.
- Dees, S. (1998). Foreign Direct Investment in China: Determinants and Effects, *Economics of Planning*. 31: 175-194.
- Desbordes, R. and Wei, S., 2014. Foreign direct investment, financial development and the 2007-2010 global financial crisis, World Bank Policy Research Working Paper No. 7065, World Bank, Washington, DC
- Dornbusch, R., 1976. Expectations and Exchange Rate Dynamics, *Journal of Political Economy* 84(6), p. 1161-1175.
- Dewenter, K. L. (1995), 'Do Exchange Rate Changes Drive Foreign Direct Investment?', *Journal of Business*, 68, 3, 405–33.
- Farooq, Z. H. (2009). Economic growth and exchange rate volatility in case of Pakistan. *Pakistan Journal of life and social sciences* , 112-118.
- Federal Reserve Bank of New York and NBER. The views expressed in this paper are those of the individual author and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System. Address correspondences to Linda S. Goldberg, Federal Reserve Bank of NY, Research Department, 33 Liberty St, New York, N.Y. 10045. email: [Linda.Goldberg@ny.frb.org](mailto:Linda.Goldberg@ny.frb.org),
- Terry Miller, Anthony B. Kim, James M. Roberts & with Patrick Tyrrell. *Rank Country Overall Score*. (2021).
- Fosu, A. K. (1992), "Political Instability and Economic Growth: Evidence from Sub-Saharan Africa", *Economic Development and Cultural Change*, 40(4), 829-841.
- Freckleton, M., Wright, A., & Craigwell, R. (2012). Economic Growth, Foreign Direct Investment and Corruption in Developed and Developing Countries. *Journal of Economic Studies* , 39 (6), 639-652.
- Gomes, Joao F. "Financing investment." *American Economic Review* 91.5 (2001): 1263-1285.
- Gupta, S., Davoodi, H., Alonso-Terme, R. (1998), Does Corruption Affect Income Inequality and Poverty, IMF Working Paper, WP/98/76
- Habib, M. and L. Zurawicki (2001), "Country-level Investments and the Effect of Corruption –Some Empirical Evidence", *International Business Review*, 10, 687-700.
- Hakimi, Abdelaziz, and Helmi Hamdi. "Does corruption limit FDI and economic growth? Evidence from MENA countries." *International Journal of Emerging Markets* (2017).
- Harms P., Ursprung H.W., 2002. Do civil and political repression really boost foreign direct investments? *Economic Inquiry* 40, 651–663.
- Heidenheimer, A. J., Johnston, M., & LeVine, V. T. (Eds.). (1989). *Political corruption. A handbook*. New Brunswick: Transaction Publishers.
- Hermes, Niels, and Robert Lensink. "Foreign direct investment, financial development and economic growth." *The journal of development studies* 40.1 (2003): 142-163.
- Hill,H., Bautista,M.S.G., *Asia Rising: Growth and Resilience in an Uncertain Global Economy* , Edward Elgar, Cheltenham, (2013).
- Hines JR (1995). *Forbidden Payment: Foreign Bribery and American Business after 1977* National Bureau of Economic Research Working Paper No. 5266.
- Hodge, Andrew, Sriram Shankar, D. S. Prasada Rao, and Alan Duhs, "Exploring the Links Between Corruption and Growth," *Review of Development Economics* 15 (2011):474–90.
- Hussain, S. Sh. "Sabir, SA and Meo, MS (2017). Impact of Political Stability, Government Effectiveness and Control of Corruption on Stock Markets of South Asia." *Journal of the Punjab University Historical Society* 30.1: 217-229.
- Husted, B.W. (1999), *Wealth, Culture and Corruption*. *Journal of International Business Studies*, 30(2), 339-360.
- IMF (International Monetary Fund) (1993). *Balance of Payment Manual*, 5th edition. Washington, DC: International Monetary Fund.
- IMF (International Monetary Funds). 2011. "IMF Executive Board Concludes 2011 Article IV Consultation with the Islamic Republic of Iran." Public Information Notice (PIN) No. 11/107,
- IMF (International Monetary Funds). 2014. "Iran Presses Ahead with Economic Reforms" IMF Survey Magazine: Countries and Regions, [www.imf.org](http://www.imf.org).
- Ibrahim, M., Muhammad K. S., Sayed F. A. (2014). The Impact of Telecom Services Characteristics on Consumer for Use in Pakistan. *Advances in Economics and Business* 2(4): 172-179
- Jadhav, P. (2012), "Determinants of foreign direct investment in BRICS economies: Analysis of economic, institutional and political factor. *Social and Behavioral Sciences*, Vol. 37, pp. 5 – 14.
- Jain, A. (2001). *Corruption a review*. *J. Econ. Surveys*, 15,

- 71–121.
- Javed, Z. & Farooq, M. (2009). Economic growth and exchange rate volatility in case of Pakistan. *Pakistan journal of life and social sciences*, 2, 112-118
- Kasasbeh, H. A., Mdanat, M. F. & Khasawneh, R. Corruption and FDI inflows: Evidence from a small developing economy. *Asian Econ. Financ. Rev.* 8, 1075–1085 (2018).
- Kim, Hak-Soon (2010), “Political Stability and Foreign Direct Investment”, *International Journal of Economics and Finance*, 2(3), 59-71.
- Kishor, Nawal, and Raman Preet Singh. "Determinants of FDI and its impact on BRICS countries: A panel data approach." *Transnational Corporations Review* 7.3 (2015): 269-278.
- Kersan-Škabić, I. (2013) Institutional Development as a Determinant of FDI Attractiveness in Southeast Europe, *Drustvena Istrazivanja*, vol. 22, no. 2:215-235.
- Khan, M. (1996), A typology of corrupt transactions in developing countries *IDS Bulletin, Liberalization and the New Corruption*, 27 (2): 12–21.
- Khan, M., 2013. The effects of corruption on FDI inflows: Some empirical investigation from less developed countries. *Journal of Applied Sciences Research*, 9(6): 3462-3467.
- Khan, A. H., & Khilji, N. M. (1997). Foreign Direct Investment in Pakistan: Policies and Trends [with Comments]. *The Pakistan Development Review*, 959-985.
- Lambsdorff, J. Graf and P. Cornelius (2000) Corruption, Foreign Investment and Growth. In: *The Africa Competitiveness Report 2000/2001*, World Economic Forum, Oxford University Press: New York, Oxford.
- Levine, R., Loayza, N. and Beck, T. (2000) ‘Financial intermediation and growth: causality and causes’, *Journal of monetary Economics*, Vol. 46, No. 1, pp.31–77.
- Li, Xiaoying, and Xiaming Liu. "Foreign direct investment and economic growth: an increasingly endogenous relationship." *World development* 33.3 (2005): 393-407.
- Lui, F., (1985), An equilibrium queuing model of bribery, *Journal of Political Economy*, 93(4), pp. 760-781
- Masten, C.R.M., 2007. The Impact of Exchange Rate Volatility on U.S Foreign Direct Investment in Latin America, Dissertation in University of Delaware.
- Mathur, A. and K. Singh, 2013. Foreign direct investment, corruption and democracy. *Applied Economics*, 45(8): 991-1002
- Mauro, P. (1995). Corruption and growth. *The Quarterly Journal of Economics*, 110, 681–712.
- Mankiw, N., Romer, D., Weil, D., 1992. A contribution to the empirics of economic growth. *Quarterly Journal of Economics* 107, 407–437.
- Mishkin, Frederic S. 1999. International experiences with different monetary policy regimes. *Journal of Monetary Economics* 43:579-605
- Moniruzzaman, M. (2010), “Inward FDI Performance in the Muslim World, Assessing Business and Political Environment”, *Journal of Economic Cooperation and Development*, 31(1), 85-118.
- Mo, P.H. (2001), “Corruption and economic growth”, *Journal of Comparative Economic*, Vol. 29 No. 66, pp. 7-9
- Montes, G.C., Lima, L.L.C., “Effects of fiscal transparency on inflation and inflation expectations: Empirical evidence from developed and developing countries”, *The Quarterly Review of Economics and Finance*, 70 (11) : 26- 37, (2018). <https://doi.org/10.1016/j.qref.2018.06.002>.
- Moosa, I.A. 2002. *Foreign Direct Investment: Theory, Evidence and Practice*, Palgrave Macmillan, Great Britain.
- Nath, H.K. (2009), “Trade, foreign direct investment, and growth: evidence from transition economies”, *Comparative Economic Studies*, Vol. 51 No. 1, pp. 20-50
- Ngouo L (2000). ‘Responsibility and Transparency in Organization in Cameroon’ in Makandala, R.S [ed], *African Public Administration Zimbabwe APPS Books*
- Noonan, J. T. (1984). *Bribes*. Berkeley, CA: University of California Press.
- Nurul Huda dan Mustafa Edwin Nasution. “Investasi pada Pasar Modal Syariah” (Jakarta: Kenacana, 2008)
- Omri, A., & Kahouli, B. (2014). The nexus among foreign investment, domestic capital and economic growth: Empirical evidence from the MENA region. *Research in Economics*, 68, 257–263.
- Organisation for Economic Co-operation and Development (OECD). *OECD employment outlook: July 1996*. OECD, Paris, France, 1996.
- Organisation for Economic Co-operation and Development (OECD). 2020b. FDI in Figures. Available online: <https://www.oecd.org/investment/investment-policy/FDI-in-Figures-October-2020.pdf> (accessed on 19 January 2021).
- Orlowski, L.T., “Relative inflation-forecast as monetary policy target for convergence to the euro” , *Journal of Policy Modeling*, 30 (11) : 1061-1081, (2008). <https://doi.org/10.1016/j.jpolmod.2008.01.001>

- Pegkas, P. The impact of FDI on economic growth in Eurozone countries. *J. Econ. Asymmetries* 12, 124–132 (2015).
- Pellegrini, L. and R. Gerlagh, 2004. Corruption's Effect IB –1 to the coefficient of Dummy variable and the coefficient of on Growth and its Transmission Channels, *Kyklos*, corruption index, the relationship between corruption and 57(3): 429-456.
- Ram, R. and Zhang, K.H. (2002), "FDI and economic growth: evidence from cross country data for the 1990s", *Economic Development and Cultural Change*, Vol. 51 No. 1, pp. 205-15.
- The members of Qatar's Ministry of Transportation and Communication. (2019). *Qatar Digital Investment Opportunities*. Tasmu Digital Valley.
- Rahman, M.M.; Ashraf, B.N.; Zheng, C.; Begum, M. Impact of Cost Efficiency on Bank Capital and the Cost of Financial Intermediation: Evidence from BRICS Countries. *Int. J. Financ. Stud.* 2017, 5, 32. [CrossRef]
- Rehman, A., Ilyas, M., Alam, M., & Akram, M. (2011). The impact of infrastructure on foreign direct investment: The case of Pakistan. *International Journal of Business and Management*, 6(5), 268–276
- Rahmani, T., Yousefi, H. (2009), *Corruption, Monetary Policy and Inflation: A Cross Country Examination*. Unpublished manuscript.
- Saha, Bibhas, (2001), Red Tape, Incentive Bribe and the Provision of Subsidy. *Journal of Development Economics*, Vol. 65, pp.113-133.
- Samimi, J.A. and Ariani, F. (2010), "Governance and FDI in MENA region", *Australian Journal of Basic and Applied Sciences*, Vol. 4 No. 10, pp. 4880-2.
- Samimi, A.J., Monfared, M., (2011), *Corruption and FDI in OIC Countries*, *Information Management and Business Review*, 2(3), pp. 106-111
- Samimi, A. J., Abedini, M., Abdollahi, M. (2012) "Corruption and Inflation Tax in Developing Countries" *Middle-East Journal of Scientific Research* 11, 391–395.
- Sarfaraz, L. (2007) *Economic Reforms and Foreign Direct Investment in Iran*, Munich Personal RePEc Archive, Paper No. 1480, Available at: <http://mpira.ub.unimuenchen.de> Shahrudin.
- Shleifer, A. & Vishny, R. W. Andrei shleifer and robert. *Q. J. Econ.* **108**, 599–617 (1993).
- Terry Miller, Anthony B. Kim, James M. Roberts & with Patrick Tyrrell. *Rank Country Overall Score*. (2021).
- Sequeira, Sandra. "Advances in measuring corruption in the field." *New advances in experimental research on corruption* (2012).
- Singh, H. (1995) Some New Evidence on Determinants of Foreign Direct Investment in Developing Countries, Policy Research Working Paper, International Finance Division, the World Bank.
- Smith-Hillman, A.V. (2007) "Competition policy, inflation and corruption: evidence from African economies" *Applied Economics Letters* 14, 653–66
- Stockman, Alan C. "Anticipated Inflation and the Capital Stock in a Cash-in-Advance Economy." *Journal of Monetary Economics* 8 (November 1981), 387-93.
- Tamazian, A., Chousa, J.P., Vadlamannati, K.C., 2009. Does higher economic and financial development lead to environmental degradation: Evidence from BRIC countries. *Energy Policy* 37 (1), 246–253. <https://doi.org/10.1016/j.enpol.2008.08.02>
- Tosun, M. U. (2002), *A Public Failure Product: Corruption*. Cingi, S., Guran, C., and Tosun M. U. (Ed.), *Corruption and Efficient State*, Ankara Chamber of Commerce Publication, Ankara.
- UNCTAD. (1999). *World Investment Report*. New York: United Nation.
- United Nation Corporation Trade and Development (UNCTAD). 2020. *World Investment Report*.
- Uddin, K. M. K., Rahman, M. M. & Quasar, G. M. A. A. (2014). Causality between exchange rate and economic growth in Bangladesh. *European Scientific Journal*, 10(31): 11-26
- UNCTAD (1999). *World Investment Report*, Geneva
- UNCTAD. (2009). *The Role of International Investment Agreements in Attracting Foreign Direct Investment to Developing Countries*. UNCTAD Series on International Investment Policies for Development.
- UNCTAD. 2014. *United Nation Conference on Trade and Conference*. Geneva
- UNCTAD, 2017. *World investment report*. United Nations Conference on Trade and Development, Geneva
- UNCTAD. (2020). *Global Trade Update*. Retrieved from [https://unctad.org/system/files/official-document/ditcinf2020d4\\_en.pdf](https://unctad.org/system/files/official-document/ditcinf2020d4_en.pdf)
- UNCTAD. (2020). *World Investment Report*. United Nations Conferences on Trade and Development.
- Wei, S.-J. (2000). How taxing is corruption on international investors? *The Review of Economics and Statistics*, 82, 1–11.
- WIR. 2001. *World Investment Report*. 2001. Geneva: United Nations
- Wooldridge, J. (2002). *Econometric Analysis of Cross Section and Panel Data*, Cambridge: The MIT Press.

- World Bank, 2017. How developing countries can get the most out of direct investment. The World Bank Group. The Global Investment Competitiveness Report 2017/2018
- Woo, J.Y. (2010) The Impact of Corruption on a Country's FDI Attractiveness: A Panel Data Analysis, 1984-2004, *Journal of International and Area Studies*, vol. 17, no. 2:71-91.
- Xiong, R.S., 2005. Impact of Exchange Rate Uncertainty on Foreign Direct Investment, Dissertation in University of WisconsinMilwaukee.
- Xu, B., Wang, J. (2000), Trade, FDI, and international technology diffusion. *Journal of Economic Integration*, 15(4), 585-601.
- Yao, S. (2006). On economic growth, FDI and exports in China. *Applied Economics*, 38, 339–351
- You, J-S., Khagram, S. (2005), A Comparative Study of Inequality and Corruption. *American Sociological Review*, 70, 136-157.
- Zakaria, M.(2008). Investment in pakistan: A critical review, MPRA paper 11543.