

# Does Macroeconomic factors Impact on Foreign Direct Investment in emerging economies?(Pakistan)

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**Abstract**— Foreign direct investment is essential for economic growth of a country. It acts as a promoter for the economic development of a country. Keeping this in mind, the objective of this study is to determine the effect of macroeconomic variables such as interest rate, real exchange rate, inflation rate and stock market on foreign direct investment in Pakistan. For this purpose, study used the authentic annual data for the period of 27 years i.e. from 1990-2016. We are use for analysis E-View software, The empirical analysis involved using the ADF test to check the stationary of the data. Results revealed that interest rate and exchange rate have significant negative effect on FDI and stock market index has negative and insignificant effect on FDI while inflation rate has positive and significant effect on FDI.

**Keywords**— real interest rate, real exchange rate, inflation rate, stock market index, Foreign direct investment.

## I. INTRODUCTION

Since past two decades foreign direct investment acting as a catalyst for the economic growth around the world. It is an most important part of international economic system and major key to development. FDI is being sought by most, if not all, developing countries as a means of complementing the level of domestic investment, as well as to access foreign markets to increase employment opportunities and improve living standards of people. According to Investment report (UN 1999) as “investment deal or involving long term relationship reflecting interest and control in one economy”. The main important feature of FDI definition is control and controlling interest, the control is to the power of making decision while controlling interest is to the benefits of an investor can get from investment. When the economic condition of a country changes, these

changes also effect the FDI, and the inflow of foreign direct investment changes with it. In recent decades, FDI by MNC's has increased and developing countries have been able to attract an increase inflow of FDI (Paramati, Mo, and Gupta, 2017).

In the modern era of 21st century, it has been emphasized that Foreign Direct Investments (FDIs) discuss several economic such as, capital inflows adding to the reserves, thus, improving the balance of payments, increasing the exports and causing exports-led growth, encouragement innovation and modern technologies, new style of management skills, increasing the jobs and employment opportunities in the host country (Paramati, Ummalla, and Apergis, 2016). Studies by researchers have also cited that the importance of foreign direct investment in the sense that it can stimulate the domestic investors to invest further in the country. Time and again, developed as well as developing countries have been offering a lot of attractive packages to attract foreign investment inflows. The countries such as, China, India, Russia and Brazil are offering worthwhile packages of incentives to foreign companies, like low tax rate, cheap labor, export zone facilities, liberalized trade policy, market orientation of the economy, good infrastructure, good law and order security system. In the new economic order of the globalization period, the foreign direct investment is measured to be a major contributor to the economic growth of any developed and developing economy. In 1990s, foreign direct investment emerged, to developing countries in promoting industrialization, growth and development. It is interesting enough to compare the growth trends of trade and investment in observing the dynamics of international business in the world economy in the years consistent to a new era.

The economy of Pakistan is passing through the period of economic stabilization. It is facing very low economic growth rate as compared to the potential. High inflation rate, adverse changes in exchange rate, trade deficit, energy crises and law and order situation are major problems of Pakistan's Economy that affect its growth rate, these hurdles affect macroeconomic factors like trade openness, imports, exports, inflation, foreign direct investment and exchange rate which are considered as the key elements of the economy.

#### **Research Gap:**

Iqbal mehmoed et al. (2011) check the exchange rate volatility and macroeconomic variable in Pakistan. Syed Ali Raza et al. (2013) Is Stock Market Sensitive to Foreign Capital Inflows and Economic Growth?. Sami Ullah et al. (2012) impact of exchange rate volatility on foreign direct investment. Muhammad Bilawal et al. (2014) Impact of Exchange Rate on Foreign Direct Investment in Pakistan. Murtala Zakari. (2017) the Impact of Exchange Rate Fluctuations on Foreign Direct Investment in Nigeria. Qaiser Abbas et al. (2011) Impact of Foreign Direct Investment on Gross Domestic Product. Sajjid Ali et al. (2014). Foreign financial Inflows and stock market of the host country. Rubab Khan and Hijaab Zahra (2016) Impact of Domestic Interest Rate on Foreign Direct Investment (A case study of Pakistan). In the past studies all the results shows positive and significant values.

In past literatures the research has done separately every dimension of the macroeconomic variables and the stock market effect on the foreign direct investment in Pakistan. But the current research we are checking effect macroeconomic variables, stock market on foreign direct investment in Pakistan.

#### **Research Questions:**

There are positive effect of stock market on FDI.

Macroeconomic has positive effect on FDI.

## **II. LITERATURE REVIEW**

A theoretical relation between economic growth and foreign direct investment has been explored by the Internalisation Theory by the determinants of FDI. This theory tries to explain the growth of transnational companies and their motivations for achieving foreign direct investment. The theory was developed by Buckley and Casson, in 1976 and then by Hennart, in 1982 and Casson, in 1983. Initially, the theory was launched by Coase in 1937 in a national context and Hymer in 1976 in an international context. In his Doctoral Dissertation, Hymer identified two major determinants of FDI. One was the removal of competition. The other was the advantages which some firms possess in

a particular activity (Hymer, 1976). A conversion of technology through foreign direct investment with relative to the managing and organizing abilities, market knowledge and access achieves economic growth in the country (Balasubramanyan et al., 1996; Kumar & Pardhan, 2002). FDI plays two as contributing to capital enhancement and flourishing total factor productivity (Nath, 2009).

In the pattern of economic globalization, the FDI is playing a significant role in the economic development are discuss in the past studies. Athukorala and Menon (1995), Zhang and Song (2001), Zhang and Fellingham (2001) and Liu et al. (2001) find that FDI grows the manufacturing exports of beneficiary countries. FDI happens when the advantages of manufacturing in the host nation exceed the loss of huge scale generation related with one plant in the home nation. The investment location is playing very important role for multinational companies while decision for DFI.

Stock market reaction to two different types of FDIs, acquisitions and green- field joint ventures (GJVs), has been explored in the past studies. Both GJVs and acquisitions giving permission to foreign investor to gain access to specific sectors owned by local companies. However, when evaluating stock market reaction to international joint ventures and acquisitions, some factors external to the internationalization itself should be taken into account as potentially influential.

Adam and Tweneboah (2009), was about agree relationship between FDI and stock market, the essence of the study were, (i) FDI stimulates economic growth, Economic growth promotes stock market development (iii) which shows that FDI encourages stock market development. A number of studies suggests that FDI encourages domestic investment, creates new job opportunities, and helps in the technological transfer and also improving the host country's overall economy growth. Gupta (2006) foreign direct investment improve the investor gathering and stock market development for long term impact. Richards (2005) evaluate that foreign direct investment helps in the growth of domestic stock market. They estimates that foreign direct investment inflow increase approximately ten times of stock price due to the increase market capitalization. It has also been established that growth and welfare in developing foreign countries may be improve by financial liberalization in the long run (Kose, Prasad, Rogoff and Wei, 2006). Durham (2004) argued that economic growth in the host country could not be boosted directly by foreign portfolio investment only. While analyzing the increase in market capitalization of developed and developing countries, Singh and Weisse (1998) pointed out that portfolio capital flows to the developing countries have tremendously increased their

market capitalization as compared to developed countries. If we look at the aggregate picture of the above inflows in the form of Foreign Inflows (FI), we may conclude that foreign inflows results in an increase in market capitalization, growth expansion and also encourages domestic private investment in the host country.

The third important pillar in attracting FPI is Stock market performance (Bekaert & Harvey, 1998). Stock market of the country is abously just like a mirror of the country's economy so it really means to know about the stock market and FPI volatility. Increasing stock market returns attract foreign investors and build their confidence to invest further in stock market. In return domestic stock market liquidity gets increased by portfolio investment in country (Levine, 1997; (Paramati, Ummalla, and Apergis, 2016). Easterly, Islam and Stiglitz (2001) found the similar results that higher domestic financial development is linked to less portfolio volatility (Paramati, Mo, and Gupta, 2017).. It creates a chain of effect; development in banking sector causes foreign investment and foreign investment brings development in banking system (Agbloyor, Abor, Adjasi, & Yawson, 2013). However, the positive relation between stock returns and FPI depends mainly on the specific stage of stock market development (Choong, Baharumshah, Yusop, & Habibullah, 2010). So from the past studies we say that there are positive relation between stock market and FDI.

H1. There is a positive relationship between stock market price and FDI.

$$FDI_t = f \{SM_t + \varepsilon_t\}$$

$$FDI_t = \beta_0 + \beta_1 SM_t + \varepsilon_t \dots \dots \dots (1)$$

DFI = Foreign Direct Investment

SM = Stock Market

$\varepsilon_t$  = error term

### **Exchange rate and FDI**

As the International Monetary Fund (IMF) define that "Foreign direct investment (FDI) means an investment made long-term interest in operating outside of the country economy of investor." The FDI is very vital source of external financing means, in which the countries obtain the little bit capital from outside the national borders. FDI is an important source of financing for improving productivity of the economy and better technology, management expertise, new investment and export markets. Lack of investment in developing countries and given the resource constraints, it has been increasingly on market forces and the private sector as the engine of economic growth. According to neoclassical growth model, FDI promotes economic growth by increasing the efficiency and volume of investment.

Therefore, all countries, least developed countries and particular developing countries seek to attract foreign direct investment for all the benefits it brings with it in the host economy.

The main area of relationship between FDI flows and exchange rate movements are based is currency area of The Theory of Exchange Rates. A financial point of view of FDI is unconfirmed on some form of same information in international financial markets where the exchange rate is one of the most important variables that affect the advantage of a MNE in comparison with a local firm [26]. A firm is supposed to maximize its profits given an exchange rate for a potential host country with respect to the FDI source country. Under this framework, depreciation of the host country currency is the source of attraction FDI inflows at least for the following two reasons. Firstly, MNE has an advantage over a domestic firm of lower cost from domestic products prices because of its ability to obtain financing in international capital markets in strong-currency terms for lower cost due to its reputation [2]. Therefore, foreign direct investors can take higher profitable project because they can acquire higher value from the same project than the local firms due to lower cost, the profit gaining main reason is due to the lower cost of the host country. Pursuant to that, countries with weak currencies tend to be recipients of FDI while countries with strong currencies tend to be sources of FDI. Secondly, the currency depreciation reduces production costs in the host country, thereby making it attractive for FDI seeking production efficiency and revenues [9, 15]. In other words, FDI can be a tool for foreign exchange risk hedging with the assumption that MNE may be more efficient in hedging the risk. However, these effects and relationship direction between the exchange rate and FDI are still uncertain because the effect of the exchange rate on the FDI also depends on the destination of goods produced [15]. If the FDI's objective is to serve the host country market, then the FDI and trade are substitutes; in which case, the appreciation of the host currency attracts the FDI inflows due to higher purchasing power of the domestic consumers. On the other hand, if the FDI's objective is for re-export purpose, so the FDI and trade are complemented, in this case, appreciation of the host currency reduces the FDI inflows through lower competitiveness. Thus, the depreciation in the host country exchange rate will increase the FDI inflow since it reduces the cost of capital investment. As (Gottschalk and Hall, 2008) concluded that the uncertainty of exchange rates in Japan is positively related to foreign direct investment in the countries of South Asia. While (Osinubi and Amaghionyeodiwe, 2009) proved

that the depreciation of the domestic currency increases the real FDI in Nigeria. According to (Dhakal et al. 2010) the volatility of the exchange rate has a positive impact on FDI in the economies of selected East Asian sample. As (Takagi and Shi, 2011) searched that FDI increases with increased volatility of exchange rates, but decreased depreciation of the Japanese currency against the currency of the host country is Asia. While a study by (Nagubadi and Zhang, 2011; Shukurov, 2016) showed that the positive influence of the depreciation and volatility of the real exchange rate of the host country of the exchange rate on the bilateral FDI between the United States and Canada. Through this literature we assume the following hypotheses.

H<sub>2</sub>. There is a positive relationship between exchange rate and FDI.

$$FDIt = f \{EXCt + \epsilon t\}$$

$$FDIt = \beta_0 + \beta_1 EXCt + \epsilon t \dots\dots\dots (2)$$

DFI = Foreign Direct Investment  
 EXCt = Exchange Rate  
 εt = error term

**Interest Rate and FDI**

A considerable measure of work has been done to investigate the FDI interest rate relationship alongside the other macroeconomic factors, for example, employment level and GDP in various areas. An outline of some of these examinations is given here: Interest rate is cost of borrowing and return on funds. The foreign investor investing for lower cost and higher interest rate. That is the reason (Chakrabarti, 2001) found the connection between interest rate and FDI positive in Indian economy. Similarly (Lanyi and saracoglu, 1983) utilized discount factor technique under exposure to assess the connection between interest rate and investment for 21 creating countries and found that interest rate positively related (Betz, and Kerner, 2016). The reason behind this contrasting view as given by (Babajide and Lawal, 2016; Greene & Villanueva, 1990; Shukurov, 2016) is that a higher interest rate increases the real cost of capital which subsequently decreases the private investment level so investment responds positively to higher real interest rates in poorly developed financial markets mostly present in less developing countries.

H<sub>3</sub> : Intrest rate has a positive impact on the FDI.

$$FDIt = f \{INTt + \epsilon t\}$$

$$FDIt = \beta_0 + \beta_1 INTt + \epsilon t \dots\dots\dots (3)$$

DFI = Foreign Direct Investment  
 INTt = Interest Rate  
 εt = error term

**Inflation and FDI**

Inflation is defined as the increase in price level of the goods. Inflation is calculated with the help of price index, it is theoretically a change in price index over a given period (Richard T. Froyen, 1983). Akinboade, Siebrits and Roussot (2006, p. 190-191) state that “low inflation is taken to be a sign of internal economic stability in the host country. High inflation indicates the inability of the government to balance its budget and the failure of the central bank to conduct appropriate monetary policy.” In other words, inflation can be used as an indicator of the economic and political condition of the host country, but the differences between “high” inflation and “low” inflation is not distinct (Ahn, Adji and Willett, 1998). FDI is dependent on inflation rate in the economy of Pakistan. He concluded that FDI has direct relationship with inflation rate in that for every increase in inflation rate FDI will increase. If country experience a high inflation rate relative to other countries then its demand for goods decrease which will decrease the foreign direct investment in the country. Inflation found to be a good economic indicator about the economy (Cushman and De Vita, 2017). So it is perceived as an important influencing factor toward foreign direct investment inflows. High inflation rate show high instability of the country that discourages foreign direct investment. In the study Awan (2010) finds that there is a positive and significant impact of inflation rate toward foreign direct investment inflows of Pakistan. Zaman et al. (2006) find the positive and significant impact of inflation rate on FDI inflows in Pakistan. When there is an increase in foreign direct investment it put an upward pressure on the local currency that will negatively affect the exporting industries due to which there is a possibility of increase in inflation. There are different views about the relationship of foreign direct investment and inflation. Faille (2011; Cushman and De Vita, 2017) says that FDI inflows does not lead toward inflation and Lawrence (2011) support the Faille views when he conduct the research between FDI and inflation in emerging markets like Philippines. Ehimare(2011) studied the effect of inflation rate on foreign direct investment in Nigeria and its relationship with economic growth. A linear regression analysis was used to determine the relationship between inflation and FDI. His conclusions were that inflation has no effect on FDI but foreign exchange does. Kiat (2007; Shukurov, 2016) did a study on the effect of inflation on foreign direct investment in South Africa. He used regression analysis on economic data collected from 30 countries, to determine the relationship between FDI inflows and inflation. The research found that inflation has a negative impact. The relationship is more significant in developed economies than those in the lesser developed

economies, but this can be attributed to more volatile economic environment.

H<sub>4</sub> : Inflation has a negative impact on the FDI.

$$FDIt = f \{ INFt + \epsilon t \}$$

$$FDIt = \beta_0 + \beta_1 INFt + \epsilon t$$

..... (4)

DFI = Foreign Direct Investment

GDPT = Inflation rate

$\epsilon t$  = error term

$$FDIt = f (INTt, EXCt, INFt, STMt + \epsilon t)$$

FDI= Foreign direct investment

EXC= Exchange Rate

INT= Domestic interest rate

INF= Inflation rate

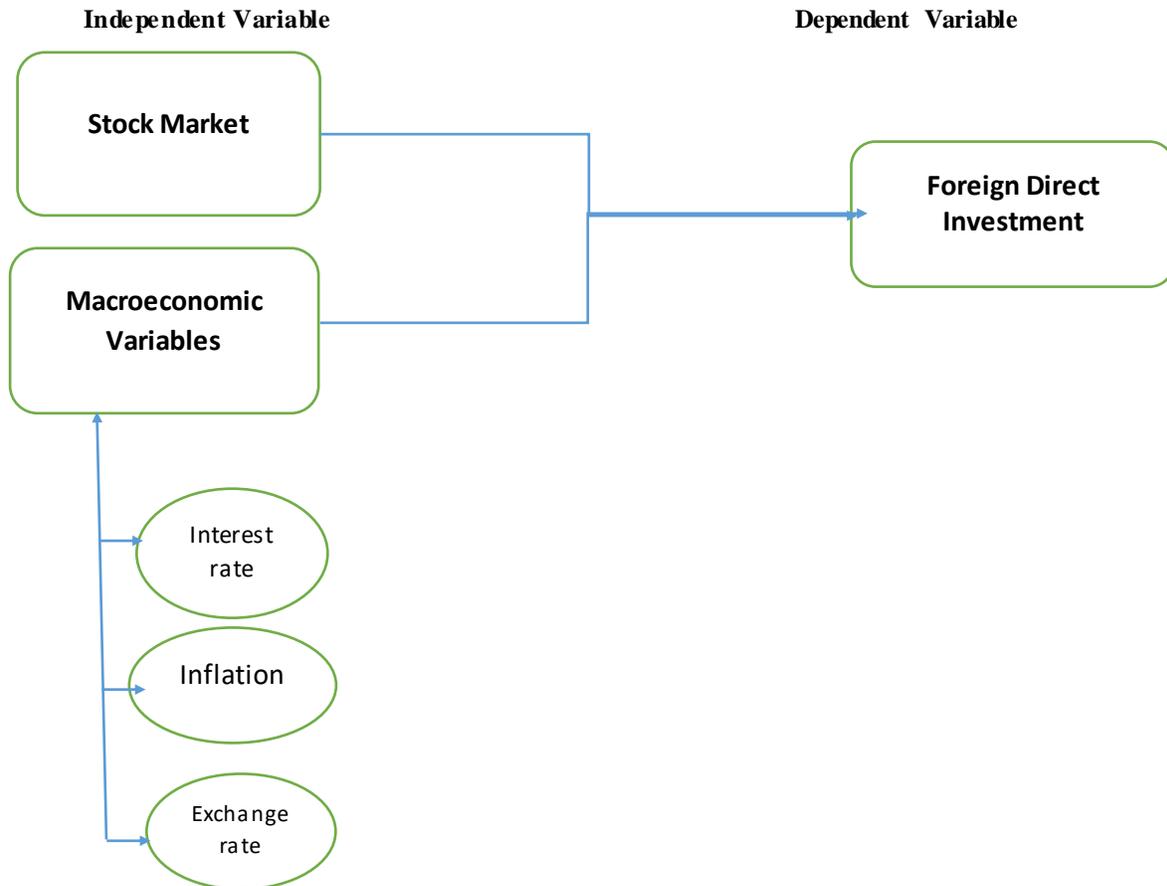
STM= Stock Market

The equation can be written in the following form:

$$FDIt = \beta_0 + \beta_1 INTt + \beta_2 EXCt + \beta_3 INFt + \beta_4 STMt$$

.....  $\epsilon t$

$\epsilon$  = represents for the base of log



### III. DATA AND METHODOLOGY

Time series data is used to find the impacts of macroeconomic variables on foreign direct investment in Pakistan for the period of 1990-2016 in this study. The data are taken from World Bank indicators of State Bank of Pakistan (SBP). The included variables in this research analysis are: Real Exchange Rate, Real Interest Rate, stock

market, Inflation Rate and foreign direct investment (FDI). The dummy variable  $D_i$  is used for military rule and democracy. The  $D_1$  is equal to one for military rule and  $D_0$  for democracy. For the measurement of the variables “Ratio Scale” was used and all the variables were taken in percentage.

IV. RESULTS

Table.1: Descriptive Statistics

	SMRETURN	RIR	RER	FDI	INFLATION_RATE
Mean	0.109222	0.466563	97.58714	0.044259	6.182835
Median	0.119000	-0.236897	94.46481	0.041095	3.736261
Maximum	0.376000	8.164459	122.5127	0.091688	20.28612
Minimum	-0.370000	-6.774088	89.35697	0.009240	2.256261
Std. Dev.	0.176528	4.183784	8.339155	0.022804	4.507910
Skewness	-0.753401	-0.084022	1.771183	0.593252	1.480915
Kurtosis	1.442959	2.086037	1.551125	2.615238	1.749060
Jarque-Bera	2.774998	0.971513	21.43867	1.750315	13.31060
Probability	0.249699	0.615232	0.000022	0.416796	0.001287
Sum	2.949000	12.59721	2634.853	1.194992	166.9365
Sum Sq. Dev.	0.810217	455.1053	1808.079	0.013521	528.3525
Observations	27	27	27	27	27

Table no.1 describe the descriptive statistics of the variables.

RIR: Real Interest rate

RER: Real exchange rate

FDI: Foreign direct investment

IR: Inflation Rate

SMRETURN: Stock Market Return

Firstly, Augmented Dickey-Fuller (ADF) test is applied for unit roots to find out that the variables included are integrated of the same order. Then we check multicollinearity test between the independent variables of the model applying the Least square test, the OLS test explore that all the independent variables are not correlated means all variables p value greater than .05 and t-statistics value

are also less than 2, it means that there are no multicollinearity error problem. Johansen-Juselius (1990) test for Cointegration is employed followed by error correction model (ECM). The variables are integrated of the same order. The unit root test showed that variables are integrated of order one or I (0). A few of the time series such as inflation rate and real exchange rate showed ambiguity in stationarity, i.e. I (1) which implied that these series are unable to explain the long run relationships between I (1) variables. The results of Augmented Dickey-Fuller (ADF) test are obtained in the Tables 2. An ADF test indicated the existence of unit roots in levels and at first difference of all variables (p = 0.05) with and without trend.

Table.2: Checking Stationerity

Null Hypothesis: EIR has a unit root			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		4.801906	0.0007
Test critical values:	1% level	3.711457	
	5% level	2.981038	
	10% level	2.629906	

Null Hypothesis: D(RER,1) has a unit root			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		6.502959	0.0000
Test critical values:	1% level	3.788030	
	5% level	3.012363	
	10% level	2.646119	

<b>Null Hypothesis: D(INFLATION_RATE,1) has a unit root</b>				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			6.312052	0.0000
Test critical values:	1% level		3.724070	
	5% level		2.986225	
	10% level		2.632604	

**Estimation Equation:**

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$$FDI = C(1)*SMRETURN + C(2)*EIR + C(3)*RER + C(4)*INFLATION\_RATE + C(5)$$

**Substituted Coefficients:**

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$$FDI = -0.33785034526*SMRETURN - 0.400336321346*EIR - 0.50079954264*RER + 0.300129*INFLATION\_RATE + 0.117108471054$$

Table.3: Ordinary Least Square Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SMRETURN	-0.337850	0.125340	-2.693695	0.1495
RIR	-0.400336	0.201288	-1.988821	0.0067
RER	-0.500799	0.200670	-2.491434	0.0462
INFLATION_RATE	0.300129	0.101057	2.962250	0.0038
C	0.117108	0.063491	1.844483	0.0586
R-squared	0.364218	Mean dependent var		-0.044259
Adjusted R-squared	0.212258	S.D. dependent var		0.022804
S.E. of regression	0.022664	Akaike info criterion		4.570518
Sum squared resid	0.011300	Schwarz criterion		4.330548
Log likelihood	-66.70199	Hannan-Quinn criter.		4.499163
F-statistic	1.080663	Durbin-Watson stat		1.957504
Prob(F-statistic)	0.390097			

First we apply the Augmented dicifular Test for testing stationerty of each variable. The each variable are satationery at the level except the inflation rate and real intrest rate, these two variable are stationry at the 1st difference without trend. It means that all variables percentage rates are fluctuated with the same rate. Than we want to test the multi-collinearity problem between the independent varibles of the model. For checking we apply Johanson co-integration Test. This test result shows that

there are no multi-collinearity problem because all the p value is greater than .05.

And than we apply the VAR test ,which describes the estimation and analysis of vector autoregression (VAR) and the vector error correction (VEC) models. We also describe tools for testing the presence of cointegrating relationships among several non-stationary variables. And the results are shows in the Table No. 4.

**VAR Model Estimation Proc:**

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$$LS \ 1 \ 2 \ FDI \ @ \ C \ RER \ EIR \ SMRETURN \ INF\_RATE$$

VAR Model:

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$$FDI = C(1,1)*FDI + C(1,2) + C(1,3)*RER(-1) + C(1,4)*EIR + C(1,5)*SMRETURN + C(1,6)*INF\_RATE(-1)$$

VAR Model - Substituted Coefficients:

$$FDI = 0.0846766935312*FDI + 0.129176405557 - 0.000795782540552*RER(-1) - 0.000192559232567*EIR + 0.0284287754444*SMRETURN + 0.000125887033381*INF\_RATE(-1)$$

Table.4: Long Run Co-Variance Test

	FDI	EIR	INF_RATE	RER	SMRETURN
FDI	0.0004501055	-0.01036045	0.01938015	-0.052578	-0.0012517
EIR	-0.0103604507	17.654451	4.28131450	32.894137	0.0839881
INF_RATE	0.019380154	4.28131450	45.705033	35.37106	-0.1695220
RER	-0.052578509	32.894137	35.37106	89.30677	-0.1569739
SMRETURN	-0.00125176	0.08398818	0.1695220	0.1569739	0.031781

The co-efficient of stock market index is -0.337850, which shows that stock market index has a negative impact over growth rate of FDI i.e. 1% change in stock market will decrease the FDI growth rate by .33 %. The probability value of stock market index is .1495, which shows that the variable of stock market is not significant and it has no significant impact on foreign direct investment in Pakistan. For interest rate, the coefficient is negative, which indicates an inverse relationship between interest rate and FDI. It reveals that a 1% change in interest rate will decrease FDI by .40 %. The value of probability is indicating a significant relationship between the variables. The probability value indicates the relationship between the one variables is insignificant. Furthermore, the coefficient of exchange rate indicates a negative relationship with FDI, which is significant as determined the probability value of 0.0462.

Additionally, the coefficient of determination R2 is 36.4216 % which means that the 36.4216 % changes in the FDI are due to independent variables included in the study. The probability value for F-statistic is showing that the applied model is a good fit.

### V. DISCUSSION

Due to the past studies, it explore that the stock market has negative and unsignificance effect on the foreign direct investment, because when the stock market prices goes up and down that volitality encourage the foreignn direct investore (Paramati, Ummalla, and Apergis, 2016; Paramati, Mo, and Gupta, 2017). Many researcher shows that their are positive relation between stock returns and FDI depends mainly on the specific stage of stock market development (Choong, Baharumshah, Yusop, & Habibullah, 2010; Shukurov, 2016; Cushman and De Vita, 2017; Khan, 2019).

A considerable measure of work has been done to investigate the FDI interest rate relationship alongside the other macroeconomic factors, for example, employment level and GDP in various areas. An outline of some of these examinations is given here: Interest rate is cost of borrowing and return on funds. The foreign investor investing for lower cost and higher interest rate. That is the reason (Chakrabarti, 2001; Betz, and Kerner, 2016) found the connection between interest rate and FDI negative in Indian economy. Similarly (Lanyi and saracoglu, 1983) utilized discount factor technique under exposure to assess the connection between interest rate and investment for 21 creating countries and found that interest rate positively related (Babajide and Lawal, 2016; Khan and Ghufuran 2018). Therefore our study shows that there are positive reashipshp between real intrst rate and FDI in Pakisatn.

As the International Monetary Fund (IMF) define that “Foreign direct investment (FDI) means an investment made long-term interest in operating outside of the country economy of investor.” . As (Gottschalk and Hall, 2008) concluded that the uncertainty of exchange rates in Japan is positively related to foreign direct investment in the countries of South Asia. While (Osinubi and Amaghionyeodiwe, 2009) proved that the depreciation of the domestic currency increases the real FDI in Nigeria. According to (Dhawal et al. 2010) the volatility of the exchange rate has a positive impact on FDI in the economies of selected East Asian sample. As (Takagi and Shi, 2011; Cushman and De Vita, 2017) searched that FDI increases with increased volatility of exchange rates, but decreased depreciation of the Japanese currency against the currency of the host country is Asia.

Inflation is defined as the increase in price level of the goods. Inflation is calculated with the help of price index, it

is theoretically a change in price index over a given period (Richard T. Froyen, 1983). In the study Awan (2010) finds that there is a positive and significant impact of inflation rate toward foreign direct investment inflows of Pakistan. Zaman et al. (2006) find the positive and significant impact of inflation rate on FDI inflows in Pakistan.

## VI. LIMITATION

Every study have limitation, there are no study without limitation. First we use only Pakistan country Data, futher study use these model in other country economy. First, The current study are also extended via amplymenting in the cross-sectional economies. Where the model will be indicate the fruitful results due to the aplying various economies. Second, in this study we are just targeting the specific factors of the macro-economics but the researchers can extend the study via testing the different factors which have strong and positive correlation with FDI. Third, in future the researcher can extend the study through the increasing the period of the study, which results will be more beneficial for the investors.

## VII. CONCLUSION

The current study investigate the stock and macro-economic factors (interest rate, inflation rate and exchange rate) on the forighn direct investment in emerging economies. It also investigate that does stock market significantly impact on the forighn direct investment? While macro-economic factors enfluence on the FDI. The data is collected from the FDI and world band indicator from 1990-2016 applied authentic annual data for the period of 27. For furthur analysis we used E-View software. Finding enriches that interest rate and exchange rate have significant negative effect on FDI and stock market index has negative and unsignificant effect on FDI while inflation rate has positive and significant effect on FDI. And the notions of the study enriches that if increase in interst rate of the country it dishearts the foreignn direct investors to invest in the country, while previous researchers suggest that increase in interest rate, it will be encourage the foreign investors. While inflation rate has significant and positive relation with foreign investors, It reveals that if there are more fluctuation in the interest rate, exchange rate or stock market price it will encourage the foeigh investors in the emerging economies for example Pakistan.

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