

# Impact of Foreign Direct Investment on the Economic Growth of Pakistan

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**Abstract** Foreign direct investment (FDI) is generally considered as a key driver of global economic integration. FDI inflows are often seen as important catalyst for economic growth in the developing countries. The current paper attempts to analyse the impact of foreign direct investment (FDI) on the economic growth of Pakistan. The study utilizes time series data over the period of 1991-2015. The study uses correlation and multiple regression analysis techniques for analysis of data. The results of the study reveal that FDI has a positive impact on the economic growth of Pakistan. The study recommends that government should bring reforms in the domestic market to attract more FDI in Pakistan.

**Keywords** Impact, FDI, Economic Growth, Pakistan's Economy

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## 1. Introduction

Foreign direct investment (FDI) is defined as “an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate).”<sup>1</sup> While economic growth is defined as “Economic growth is an increase in the capacity of an economy to produce goods and services, compared from one period of time to another.”<sup>2</sup>

There is a widespread belief among international institutions, academicians, policymakers and researchers that foreign direct investment (FDI) has a huge positive impact on the economic growth of the developing countries. By now it is well recognised that FDI can significantly benefit the economy of the host country and this may be the reason that governments of many countries around the globe formulate strategies that attract foreign direct investment in their countries. In addition to the direct capital financing, FDI can benefit the host country through technology spill overs, human capital formation, creation of competitive business environment, enterprise development and integration of international trade. Therefore, many emerging economies

have liberalised their FDI regime and formulated FDI favourable policies.

Many international institutions, politicians and economists consider Foreign Direct Investment as a major tool of the economic growth of a country as well as the solution of economic issues. Foreign Direct investment plays a major role in the economic expansion when there is a shortage of domestic savings.<sup>3</sup> Foreign Direct Investment (FDI) has been emerged as a catalyst for accelerating the economic growth of developing countries. It is not only an important source of capital inflows but also a major source of technology transfers in the host country. The capital inflows and technology transfer are considered as accelerators for economic growth, so foreign direct investment (FDI) is more likely to promote the economic growth of the host country.<sup>4</sup> Foreign direct Investment promotes the economic growth of a host country through various channels but the most important channels are technology transfer and spill overs. Technology transfer can be taken place in the host country through multinational firms while spill overs could be occurred by the interaction of domestic firms through the interaction of multinational firms with domestic firms, suppliers, customers and work force. Therefore, FDI can have a positive impact on income.<sup>5</sup>

Despite the fact that many studies established the idea that FDI has a positive impact on the economic growth of a host country, there are some studies that argue that the

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<sup>1</sup> UNCTAD, T. (2008). Development Report 2008. *New York and Geneva*, 31-40.

<sup>2</sup> Investopedia dictionary

<sup>3</sup> Mencinger, J. (2003). Does foreign direct investment always enhance economic growth? *Kyklos*, 56(4), 491-508.

<sup>4</sup> Wang, M., & Wong, S. (2009). What Drives Economic Growth? The Case of Cross-Border M&A and Greenfield FDI Activities. *Kyklos*, 62(2), 316-330.

<sup>5</sup> Gao, T. (2004). FDI, openness and income. *The Journal of International Trade & Economic Development*, 13(3), 305-323.

relationship between FDI and economic growth is ambiguous. For instance, Aitken and Harrison states that the net impact of foreign direct investment on the host country is very small.<sup>6</sup> Borensztein *et al* is of the view that FDI can only contribute in the economic growth, if the host country has sufficient absorptive capacity of advanced technology.<sup>7</sup> Although, there is no consensus on the effects on FDI on the economic growth of the host country but the number of studies that show the positive effects of FDI is much higher than those which focus on the negative effects.<sup>8</sup>

## 2. Literature Review

A substantial literature rationalises the influence of foreign direct investment on the economic growth of a developing country. The FDI impacts the recipient's economic growth by its influence on domestic physical capital accumulation, some through its effects on human capital accumulation and through augmenting technological advancement particularly by spillovers. The existing literature highlights the effects of foreign direct investment on the economic growth of a developing country particularly Pakistan. The current literature also sheds light on the channels through which FDI contributes significantly to a country's economic growth.

Lee and Tcha (2004) indicates that FDI is the most effective way to achieve economic growth. Most of the authors consider FDI as a major engine of economic growth in a host country. In 2002, Organisation of Economic Cooperation (OECD) reported the fact that FDI is considered as the only source of economic growth and modernisation for the countries with weak economies. Carkovic and Levine (2002) states that FDI is given a lot of importance by many governments, particularly the governments of developing countries treat FDI in a very special way. In case of developing countries, they don't have enough savings, so they usually rely on FDI inflows for capital.

According to Hanson (2001) there are many examples of special treatment offered to foreign investors by the governments of the developing countries such as tax holidays, import duty exemptions, provision of land for facilities and some direct subsidies. So, these are some common examples which have been seen to encourage foreign direct investment in the host countries. According to Ford *et al* (2008) countries have their own public agencies which are given task to attract foreign investments in the country by using public funds. So, it shows that the

governments are even ready to incur some costs to attract investments. Hill (2000) emphasized on the fact that foreign direct investment plays a positive role in the economic growth of the host country through transfer of capital, technology and management resources. He further states that these resources have the potential to speed up the economic growth of the host country and the most notable thing is that these resources can only be transferred to the host country through FDI.

Har Wai Mun *et al* (2008) studied FDI and economic growth relationship in Malaysia and their study term FDI as a good source of economic growth. Beside capital FDI brings several more benefits in the host country like employment, management resources, modern technology and competitive goods. Balasubramanyam *et al* (1996) analysed the impact of foreign direct investment on the developing economies by using cross section and OLS regression. He found that FDI has a positive effect for those countries which have outwardly oriented trade policy but not for those countries which have inwardly trade policies.

Although, foreign direct investment is considered as the vehicle of the economic growth of the host country but some estimated benefits may prove vague if the host economy is not able to take advantage of the new technologies or know-how transferred from FDI. Durham (2004) examined the effects of foreign direct investment (FDI) on economic growth using data on 80 countries. He founds that sometimes FDI has insignificant and adverse effects on the economic growth of the developing countries. He is of the view that the impact of FDI is dependent on the absorptive capacity of the host country. Zilinske (2010) states that the effects of foreign direct investment can be positive as well as negative. For instance, greenfield FDI has more positive effects than mergers and acquisitions or sometimes M&A has negative externalities on the economic growth of the host country.

Carkovic and Levine (2002) analyses the impact of FDI on the economic growth and their study came up with the conclusion that foreign direct investment has adverse effects on the economic growth of the host country. Buckley *et al.* (2002) and De Mello (1999), articulated in their studies that the impact of FDI is dependent on the economic and social conditions and its environmental quality of the host country. The environmental quality includes savings and financial development, trade openness, human capital development and technological development of the host country.

So, the impact of foreign direct investment on the economic growth of the host country is still debatable. A large number of studies have been conducted so far to find out the effects of FDI on the economy but there is no consensus. Some studies came up with the findings that FDI has positive impact on the economy while others with negative impact. Some studies have found that the impact of FDI depends on the absorptive capacity of the host country that includes political, economic and technological condition of the host country.

<sup>6</sup> Aitken, B. J., & Harrison, A. E. (1999). Do domestic firms benefit from direct foreign investment? Evidence from Venezuela. *American economic review*, 605-618.

<sup>7</sup> Borensztein, E., De Gregorio, J., & Lee, J. W. (1998). How does foreign direct investment affect economic growth?. *Journal of international Economics*, 45(1), 115-135.

<sup>8</sup> Vissak, Tiia, and Tõnu Roolah. "The negative impact of foreign direct investment on the Estonian economy." *Problems of Economic Transition* 48.2 (2005): 43-66.

### 3. FDI in Perspective of Pakistan's Economy

Foreign Direct Investment (FDI) has been emerged as the most significant source of external capital flows to developing countries in the recent decades and it has become an important part of capital formation in the developing economies. A higher level of saving and investment is required to increase capital formation in developing countries but the developing countries like Pakistan lack the desired amount of domestic savings. So, there is a gap between saving and desired level of investment which can be filled by external capital inflows. Foreign direct investment is one of the important sources of capital inflows.

Jawaid (2016) investigated the relationship between the foreign direct investment (FDI) and the economic growth of Pakistan over the period 1966-2014. By applying Autoregressive Distributed Lag- Error Correction Model (ARDL-ECM) technique, he found that FDI has a significant impact on the economic growth of Pakistan both in short run and long run. Khan (2007) examined the link between foreign direct investment, domestic financial sector and economic growth for Pakistan over the period 1972 to 2005. The empirical study is based on the bound testing approach of cointegration advanced by Pesaran, et al. (2001). The results obtained from the empirical study suggest that FDI has a positive impact on economic growth both in the short-run and the long-run if the domestic financial system has achieved a certain level of development. Moreover, the study suggests that better domestic conditions not only attract FDI but also helps in maximising the benefits of foreign direct investment.

Malik and Khola (2015) analysed the impact of FDI and trade openness on economic growth of Pakistan. By utilizing time series data from 2008-2013, the study concluded that FDI, trade openness and domestic capital positively affect the economic growth. Higher FDI replaces obsolete technology by advanced technology and educates the labour force of the country. Moreover, it is suggested that government should take some solid measures such as stabilizing the exchange rate in order to increase FDI in Pakistan. Tahir et al (2015) analysed the relationship between foreign remittances, foreign direct investment, foreign imports and economic growth by using time series econometric techniques covering the data over the time period of 1977 to 2013. The study found that foreign remittances and foreign direct investment have significantly positive role in the economic growth process of Pakistan. Moreover, it is recommended that that policy makers should

take appropriate measures to increase foreign remittances and FDI, so that long run economic growth could be achieved in the long run.

Younas et al (2014) examined the impact of FDI on economic growth of Pakistan by using Two- Stage Least Squares estimation techniques. The results obtained from the study show that there exists a positive relationship between foreign direct investment and economic growth. The study came up with the recommendations that government should ensure political stability and enhanced domestic investment in order to attract more FDI in Pakistan. Falki (2009) investigated the impact of foreign direct investment on the economic growth of Pakistan by using production function based on the endogenous growth theory covering the period 1980-2006. The results obtained from the study show that there is a negative and statistically insignificant relation between GDP and FDI inflows of Pakistan. Atique et al (2004) analysed the impact of FDI on the economic growth of Pakistan under export regimes. The study concludes that the growth impact of FDI tends to be higher under an export promotion trade regime as compared to an import substitution regime by utilizing the data for Pakistan over the period 1970–2001. The findings of the study show that Pakistan FDI plays a pivotal role in the economic development of Pakistan, so it is recommended that the government's outward looking strategy should include foreign direct investment as an essential part in addition to export promotion strategy.

### 4. Methodology and Data

Secondary data sources are used to assess the impact of FDI on the economic growth of Pakistan. The study analysis time series data over the period of 1990 to 2015 for the following variables; Foreign Direct Investment (FDI), inflation rates, exchange rates and interest rates. Data has been obtained from World Development Indicators (WDI) database published by World Bank and State Bank of Pakistan. A descriptive survey research design is adopted in the research study. The summary of the statistics of all variables is given below in Table 1.

#### 4.1. Descriptive Statistics

*GDP, FDI, Inflation rate, Foreign Exchange Rate and Interest Rate*

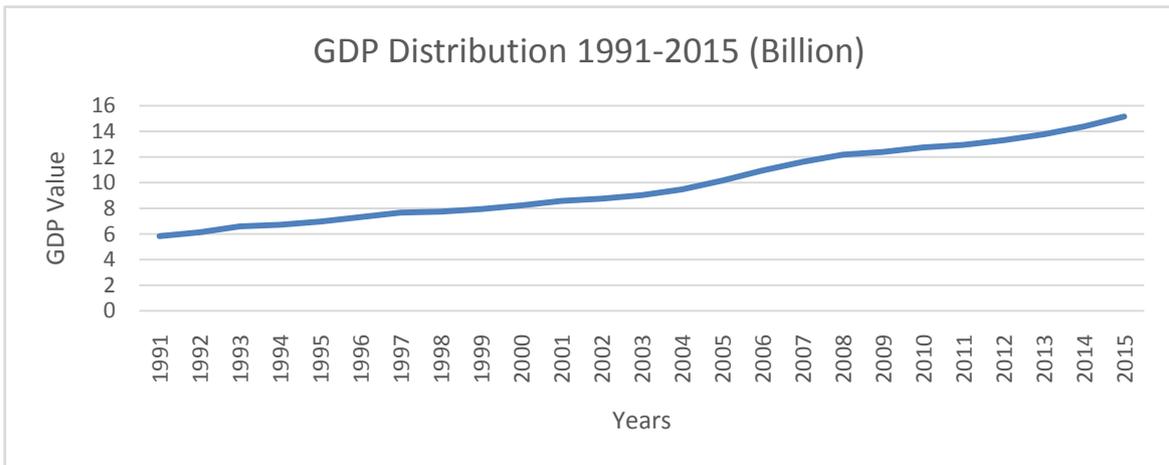
The study findings on GDP, FDI, Inflation rate, Foreign Exchange Rate and Interest Rate are given below.

**Table 1.** Descriptive Statistics

Variable	Mean	Std. Dev.	Min. Value	Max. Value
Real GDP	9.86	2.84	5.83	15.16
FDI	1446.133	1517.54	258.41	5590
Inflation Rate	8.82	4.22	2.53	20.28
Exchange Rate	60.21	24.83	23.8	102.76
Interest Rate	6.19	2.37	1.63	8.71

#### 4.1.1. Gross Domestic Product

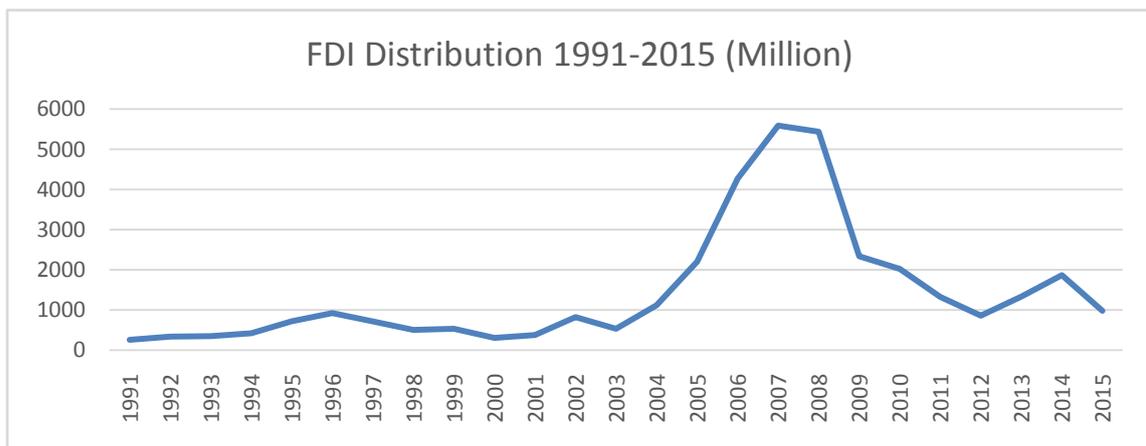
The findings on the GDP real values are shown in Table 1 above and Figure 1 below.

**Figure 1.** GDP Distribution

The above finding in Table 1 and Figure 1 indicate the trend of Gross Domestic Product over the period of 1991-2015. The minimum value of GDP is USD 5.83 Billion in 1991 while the maximum value of GDP is calculated as USD 15.16 Billions. There is a steady increase in the values of GDP over the past 25 years that means economic growth of Pakistan has been increasing for last 25 years.

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

The findings on the FDI values are shown in Table 1 above and Figure 2 below.

**Figure 2.** FDI Distribution

The findings of table 1 and Figure 2 shown above indicate the trend of FDI values over the period of 1991-2015. The minimum value is calculated as USD 258.41 million in 1991 while the maximum value is calculated as USD 5590 million in 2007. The findings clearly indicate rising and falling trend in the values of FDI during the last 25 years. The value of standard

deviation is calculated as 1517.54. The higher value of standard deviation indicates that there is a variation over the yearly values of foreign direct investment.

4.1.3. Inflation Rate

The findings on the inflation rate nominal values are shown in Table 1 above and Figure 3 below.

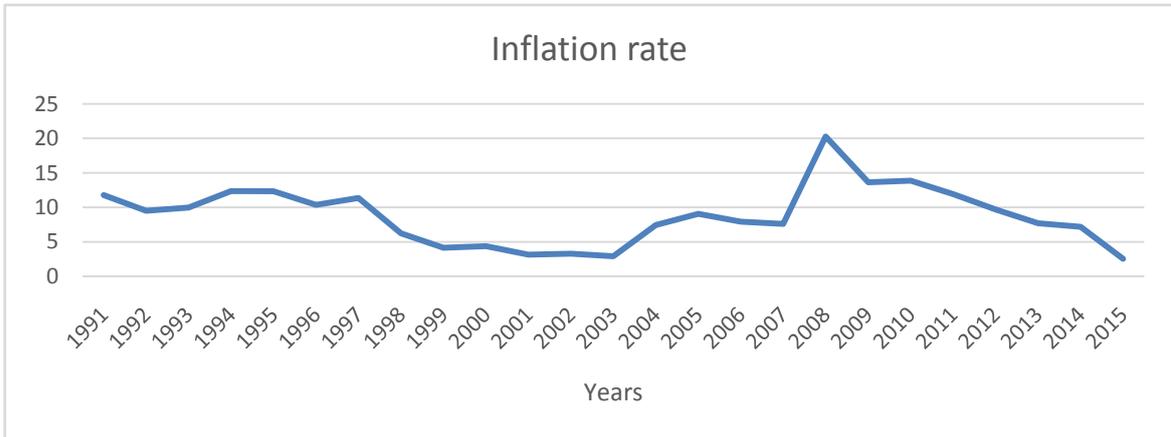


Figure 3. Inflation rate

The findings in the Table 1 and Figure 3 given above indicate the trend of annual average inflation rate values over the time period of 1991-2015. The minimum value of inflation is recorded as 2.53 in the year 2015 while the maximum value of inflation is 20.28 in 2008. The findings show that there is a rising and falling trend of the values of inflation rate with significant annual variations over the last 25 years.

4.1.4. Exchange Rate

The findings on the exchange rate nominal values are shown in Table 1 above and Figure 4 below:

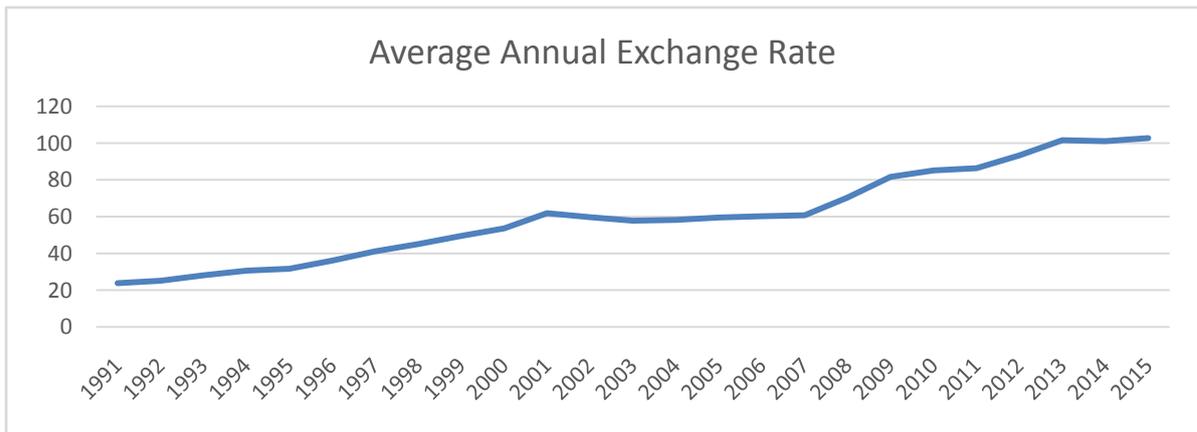


Figure 4. Exchange Rate

The findings as presented in Table 1 and figure 4 above indicate the trend of foreign exchange rate values of Pakistan relative to the US Dollar over the period of 1991-2015. The minimum exchange rate value is calculated as 23.8 in 1991 while the maximum exchange rate value is calculated as 102.76 in the year 2015. The findings indicate that there is a rise in the values of exchange rate over the past period of 25 years.

4.1.5. Interest Rate

The findings on the interest rate nominal values are shown in the Table 1 above and Figure 5 below:

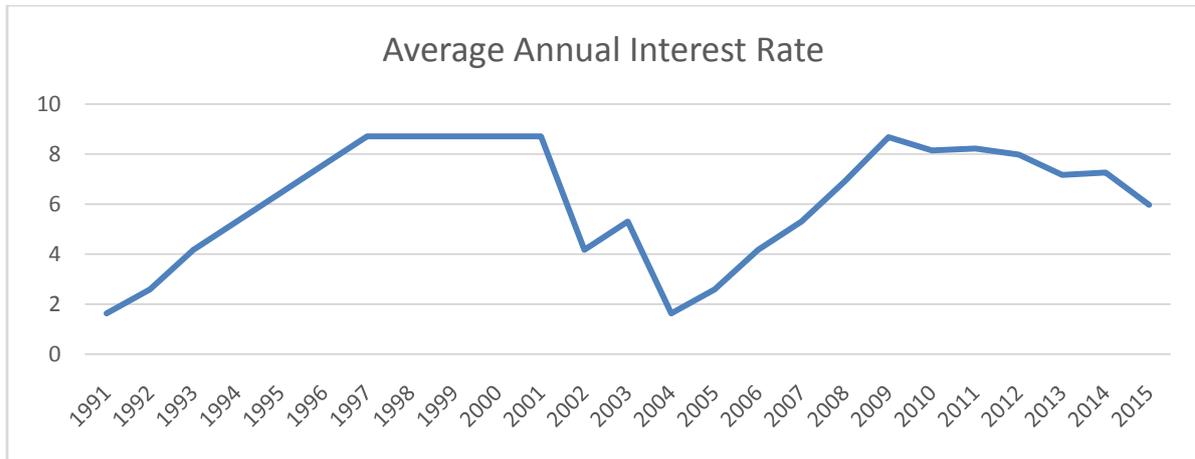


Figure 5. Interest rate

The findings presented in the above Table 1 and Figure 5 indicate the trend of interest rate values over the period of 1991-2015. The minimum interest rate value is calculated as 1.63 in 2004 and maximum value is calculated as 8.71 in 2001. The findings indicate fluctuating levels of interest rate values with annual variations over the last 25 years. The findings clearly indicate that there is rising and falling trend in the values of interest rate over the past 25 years.

**4.2. Correlation Matrix**

Table 2. Correlation Matrix

	Real GDP	FDI	Inflation Rate	Exchange Rate
Real GDP	1.0000			
FDI	0.4794	1.0000		
Inflation Rate	0.0319	0.388	1.0000	
Exchange Rate	0.9688	0.303	-0.1022	1.0000

The correlation matrix on Table 2 above shows that FDI is positively related to GDP.

**4.3. Model Specification**

To determine the relationship between foreign direct investment and economic growth in Pakistan, the study conducts multilinear regression analysis among the variables. The regression model specification is as follows;

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where, Y= Gross Domestic Product (Dependent Variable)

X<sub>1</sub> = Foreign Direct Investment

X<sub>2</sub> = inflation rate

X<sub>3</sub> = exchange rate

X<sub>4</sub> = interest rate

β = coefficient of independent variable, α= constant

ε = error term

**4.4. Multiple Regression Analysis**

The study conducts multiple regression analysis to determine the relationship between foreign direct investment and economic growth in Pakistan. The findings of the study are presented in the tables below.

Table 3. Model Summary

Model	R	R-Square	Adjusted R-square	Standard Error of the Estimate
1.	.063376343	0.9688	0.9626	.0261636

The four independent variables FDI, inflation rate, exchange rate, interest rate that were studied, indicate 96.88% of variance in economic growth in Pakistan as represented by  $R^2$ . It means that other factors not included in this study contribute 3.1% of variance in the dependent variable.

**Table 4.** ANOVA

Model	Sum of Squares	Degree of Freedom (df)	Mean Square	F	Sig
Regression	1.96822552	4	.49205638	155.28	0.000
Residual	.063376343	20			
Total	2.03160187	24			

The findings show that the significance value is less than 0.05, thus the model is statistically significant to predict how FDI, inflation rate, exchange rate and interest rate affect GDP of Pakistan. The F calculated value is greater than the F critical value which shows that the overall model was significant.

**Table 5.** Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients		t-value	Significance
	Beta	Standard Error	Beta	Standard Error		
Constant	2.91	3.386	15.252	.1808	84.34	0.000
FDI (USD)	3.088	.681	.0483	.0199	2.43	0.025
Inflation Rate	4.445	2.313	.0516	.0261	1.97	0.062
Exchange Rate	1.085	4.160	-.0313	.0254	-1.23	0.233
Interest Rate	-6.755	4.016	.598	.0418	14.29	0.000

From the regression findings in table 5 above, we substitute the values in the regression equation;

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$  becomes:

$$Y = 2.91 + 3.088 X_1 + 4.445 X_2 + 1.085 X_3 - 6.755 X_4 + \varepsilon$$

Where Y represents GDP, which is dependent variable,  $X_1$  is FDI,  $X_2$  is inflation rate,  $X_3$  is exchange rate and  $X_4$  is interest rate. According to the equation, by taking all the factors i.e. FDI, inflation rate, exchange rate and interest rate constant at zero, GDP will be 2.91. The findings of the data reveal that a unit increase in foreign direct investment (FDI) will lead to 3.088 rise in GDP; a unit increase in inflation rate will result in 4.445 increase in GDP; while a unit rise in exchange rate will lead to 1.085 increase in GDP. At 5% level of significance and 95 % level of confidence, FDI had a 0.0025 level of significance; inflation rate had a 0.062 level of significance; exchange rate had a 0.233 level of significance and interest rate had a 0.000 level of significance.

Blomstorm, et al., (1992) found that FDI flows have significant effect on economic growth and it acts as a driving force in economic growth process. Podrecca and Carmeci (2001) came up with the findings that investment is the most important determinant of economic growth as identified by neoclassical and endogenous growth models. Cockcroft and Riddell (1991) and Meier (1994) found in their study that firms choose a location for investment because of the comparative advantage in terms of low inflation rates,

availability of raw materials, good infrastructure, adequate labour force and low capital cost. Castilla (2005) found that employment generation is another positive impact of FDI. Ramirez (2006) found that FDI allows for technology transfer and specialized knowledge which in turns favours and increase in productivity. Baracaldo (2005) that productive FDI usually results in long lasting and stable capital flows as they are invested in long term assets. Jawaid (2016) and Khan 2017 found in their studies that FDI has positive impact on the economic growth both in the short run and long run.

## 5. Conclusions and Recommendations

The study aims to analyse the impact of foreign direct investment (FDI) on the economic growth of Pakistan over the period 1991-2015. The study utilized correlation and multiple regression analysis to determine the impact of FDI on the economic growth of Pakistan. The results of the study reveal that FDI has a positive impact on the economic growth of Pakistan. Correlation analysis also suggests that FDI and GDP are positively related to each other. So finally, the findings of the study reveal that FDI positively affects the economic growth in Pakistan. Therefore, the study recommends that government policy makers should bring reforms in the domestic market in order to attract more FDI in Pakistan.

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## REFERENCES

- [1] Aitken, B. J., & Harrison, A. E. (1999). Do domestic firms benefit from direct foreign investment? Evidence from Venezuela. *American economic review*, 605-618.
- [2] Athukorala, P. C., & Hill, H. (2000). *FDI and host country development: The East Asian experience*. Economics Division, Research School of Pacific and Asian Studies & Asia Pacific School of Economics and Management, Australian National University.
- [3] Atique, Z., Ahmad, M. H., Azhar, U., & Khan, A. H. (2004). The Impact of FDI on Economic Growth under Foreign Trade Regimes: A Case Study of Pakistan [with Comments]. *The Pakistan Development Review*, 707-718.
- [4] Buckley, P. J., Clegg, J., & Wang, C. (2006). Inward FDI and host country productivity: evidence from China's electronics industry. *Transnational Corporations*, 15(1), 13-37.
- [5] Borensztein, E., De Gregorio, J., & Lee, J. W. (1998). How does foreign direct investment affect economic growth?. *Journal of international Economics*, 45(1), 115-135.
- [6] Balasubramanyam, V. N., Salisu, M., & Sapsford, D. (1996). Foreign direct investment and growth in EP and IS countries. *The economic journal*, 92-105.
- [7] Carkovic, M. V., & Levine, R. (2002). Does foreign direct investment accelerate economic growth?
- [8] Durham, J. B. (2004). Absorptive capacity and the effects of foreign direct investment and equity foreign portfolio investment on economic growth. *European economic review*, 48(2), 285-306.
- [9] De Mello, L. R. (1999). Foreign direct investment-led growth: evidence from time series and panel data. *Oxford economic papers*, 51(1), 133-151.
- [10] Falki, N. (2009). Impact of foreign direct investment on economic growth in Pakistan. *International Review of Business Research Papers*, 5(5), 110-120.
- [11] Feenstra, R., & Hanson, G. (2001). *Global production sharing and rising inequality: A survey of trade and wages* (No. w8372). National Bureau of Economic Research.
- [12] Ford, T. C., Rork, J. C., & Elmslie, B. T. (2008). Foreign direct investment, economic growth, and the human capital threshold: evidence from US states. *Review of International Economics*, 16(1), 96-113.
- [13] Gao, T. (2004). FDI, openness and income. *The Journal of International Trade & Economic Development*, 13(3), 305-323.
- [14] Har, W. M., Teo, K. L., & Yee, K. M. (2008). FDI and economic growth relationship: An empirical study on Malaysia.
- [15] Hanson, G. H., Mataloni Jr, R. J., & Slaughter, M. J. (2001). *Expansion strategies of US multinational firms* (No. w8433). National bureau of economic research.
- [16] Javaid, W. (2016). Impact of Foreign Direct Investment On Economic Growth of Pakistan-An ARDL-ECM Approach.
- [17] Khan, M. A. (2007). *Foreign direct investment and economic growth: the role of domestic financial sector* (No. 2007: 18). Pakistan Institute of Development Economics.
- [18] Lee, M., & Tcha, M. (2004). The color of money: The effects of foreign direct investment on economic growth in transition economies. *Review of World Economics*, 140(2), 211-229.
- [19] Mencinger, J. (2003). Does foreign direct investment always enhance economic growth?. *Kyklos*, 56(4), 491-508.
- [20] Malik, K. (2015). Impact of Foreign Direct Investment on Economic Growth of Pakistan. *American Journal of Business and Management*, 4(4), 190-202.
- [21] RAMZAN, M. (2013). The Impact of foreign direct investment on Pakistan economic growth. *Interdisciplinary journal of contemporary research in business*, 4, 287-296.
- [22] Tahir, M., Khan, I., & Shah, A. M. (2015). Foreign Remittances, Foreign Direct Investment, Foreign Imports and Economic Growth in Pakistan: A Time Series Analysis. *Arab Economic and Business Journal*, 10(2), 82-89.
- [23] UNCTAD, T. (2008). Development Report 2008. *New York and Geneva*, 31-40.
- [24] Vissak, Tiia, and Tõnu Roolah. "The negative impact of foreign direct investment on the Estonian economy." *Problems of Economic Transition* 48.2 (2005): 43-66.
- [25] Wang, M., & Wong, S. (2009). What Drives Economic Growth? The Case of Cross-Border M&A and Greenfield FDI Activities. *Kyklos*, 62(2), 316-330.
- [26] Younus, H. S., Sohail, A., & Azeem, M. (2014). Impact of foreign direct investment on economic growth in Pakistan. *World*, 1(1), 002-005.
- [27] Žilinskė, A. (2010). NEGATIVE AND POSITIVE EFFECTS OF FOREIGN DIRECT INVESTMENT. *Economics & Management*.