

## Impact of FDI on GDP and Inflation in Nepal

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### Abstract

The study has the major purpose to investigate the impact of the foreign direct investment on gross domestic product and inflation in the context of Nepal. This study is quantitative in nature and adopted the regression model for the evaluation of effects of the variables. And for the results the dataset undertaken are the yearly data from 2000 to 2019. The analysis of the results on this paper concludes that the overall model is significant. There that FDI is positive but have insignificant relationship with GDP, whereas INF has positive and insignificant relationship with GDP

**Keywords:** Foreign Direct Investment, Gross Domestic Product, Inflation

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### I. Introduction

FDI has become one of the most effective method of having inflows from external sectors. It refers to net inflows of investment in an economy of any country. It is the addition of equity capital, reinvestment of earnings, long term and short term capital. FDI involves participation in management, joint ventures and transfer of technology. The use of this technique has also become an important aspect of building capital in developing countries around the world. The positive impact of FDI is becoming increasingly popular as a tool for economic growth and strengthening ( Muhammad 2007). The most strongest point of implementing FDI is the increase in productivity, opportunities of employment, greater outflow of exports and exchange of technological advancement between the investor and country. According to a number of studies, FDI can serve as a means of transfer of technology and knowledge (Dunning & Hamdani 1997). Having FDI in a developing country enables the employment and exploitation of natural and human resources, to implement innovative business practices, in terms of management and marketing, and facilitates in reduction of budget deficit.

FDI plays an important role to make substantial contribution to the economic growth by investing in sectors and bringing along with other indirect positive impacts including transfer of technology, training skills, employment, which all contribute to the longterm development of the country. Also, the outstanding increase in FDI inflows demands the analysis of their relationship between FDI inflows and gross domestic product. FDI has become one major element in this rising trend of globalization and integration.

GDP refers to the market value of all final goods and services produced in a country in a given period. GDP is often considered an indicator of growth and standard of living for a country. Inflation when the price of most goods and services continues to rise. Inflation is measured by the consumer price index (CPI) .

Inflation refers to the increase in general price of goods and services over certain time period. When the price of one commodity increases, each unit of currency buys fewer quantity of goods and services. According to economists, inflation is caused by excessive money supply.

### II. Theoretical Framework

Various studies on regarding inflation, foreign direct investment and gross domestic product have been presented. Most of the research work has been done internationally. Some of the important empirical studies have been reviewed to develop objectives in the context of Nepal and further, to analyze it to draw some important conclusions and policy recommendations.

Barro (1995) found a negative relationship between inflation and economic growth. The study contains a large sample data of more than 100 economies for the period 1960 to 1990 and to study the effects of inflation on growth, a system of regression equations is used, in which other determinants are constant.

Mubarik (2005) studied the threshold level of inflation in Pakistan using annual data for the period 1973 to 2000. The results from his study suggest nine percent threshold level of inflation for the economy of Pakistan. The study follows the analysis of Khan and Senhadji (2001) in which they analyzed threshold level for both the developing, including Pakistan and developed economies. They used panel data for 140 developing and developed economies for the period 1960 to 1998.

Adam & Tweneboah (2009), conducted a study on the FDI and stock market development in the country which concludes that Foreign Direct Investment in Ghana had a positive impact on the development of the economy and the stock market.

Falki (2009) conducted a significant study on the impact that FDI had on the economic development of Pakistan. The study consisted data on FDI gathered from the Handbook of Pakistan economy of 2005. Data ranged from 1980 and 2006 and had variables such as domestic variables, labor force and foreign invested capital.

### III. Methodology

The objective of the study is to look at the impact of FDI and inflation on GDP in Nepal. The study covers the time period from 2000-2018. As world Bank is considered as an authentic source of data collection, so secondary data of the mentioned variables is collected from there. To examine the impact of FDI on GDP and inflation in Nepal, following theoretical model is used.

$$GDP = F(\text{FDI \& CPI})$$

The core objective of this paper is to study the effect of FDI on GDP of Nepal. The trend of FDI inflows is also observed with relevance to GDP growth and inflation of Nepal. To examine the relation of Nepal's GDP with FDI and inflation, the following multiple regression model is used,

$$GDP = \alpha + \beta_1 FDI + \beta_2 CPI + \mu$$

Where,

FDI = Foreign Direct Investment

GDP = Gross Domestic Product

CPI = inflation Rate

Level of Significance : 5 to 10 percent

The aforementioned Multiple Regression Model was run on SPSS to find out the Impact of FDI and inflation on GDP of Nepal. In this multiple regression model, GDP is used as dependent variable and FDI and CPI are measured as independent variables. The descriptive statistics of GDP, FDI and inflation are given below:

#### 3.1 Measures of Output (Gross Domestic Product)

We have used GDP, as an output growth indicator in the Multiple Regression Model. Data series covers the period from 2000 to 2018 and is taken from the World Bank. GDP is measured in million US Dollars. It is used as a dependent variable in the proposed model.

#### 3.2 Measures of Input (Foreign Direct Investment)

We have used FDI, as an input growth indicator in the Multiple Regression Model. Data series covers from 2000 to 2018 and is taken from World Bank. FDI is measured in million US Dollars. It is measured as an independent variable in the proposed model.

#### 3.3 Measures of Input (Inflation)

We have used inflation, as an input growth indicator in the Multiple Regression Model. Data series covers from 2000 to 2018 and is taken from World Bank. Inflation is measured in million US Dollars. It is measured as an independent variable in the proposed model.

### IV. Empirical Results

We have used the following multiple regression model for the study.

$$GDP = \alpha + \beta_1 FDI + \beta_2 CPI + \mu$$

Empirical results of GDP, FDI and inflation

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept( constant )	5604.303995	2033.252109	2.756325184	0.01405014	1294.002074	9914.606
FDI (X2)	99.26511298	13.62777071	7.284031637	1.83062E-06	70.37552964	128.1547
Inflation % (X1)	573.3267996	281.0566116	2.039897928	0.058225524	-22.48660067	1169.14

Table 2

Multiple R	0.896508122
R Square	0.803726813

Adjusted R Square	0.779192664
Standard Error	3412.773212
Observations	19

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The proposed model empirical results are depicted by the above tables. The slope coefficients of the inputs FDI and inflation both have positive impact on GDP.

For FDI, here p value is greater than .05 which tells it is not statistically significant. There is no good correlation with GDP. P value is  $> 0.05$  so it is ignored in derivation of regression (relationship) equation.

For inflation, here p value is also greater than .05 but it is close to 5 % , so we can take into consideration for its effect on dependent variable.

R Square tells about 80.37% of model is explained by independent variables and remaining by other variables

Adjusted R square tells about how closely data are fitted to regression line if additional independent variables are added. R square greater than 60 % is considered to be good for estimation of model.

The result concludes that FDI is positive but have insignificant relationship with GDP, whereas INF has positive and insignificant relationship with GDP but it is very close to 5 %. Further it concludes that individually both independent variables are not significant , but jointly r square is 80.3 % which tells that 80.3% is explained by independent ( FDI and inflation) and remaining by other variables.

## **V. Conclusion**

The role of Foreign Direct Investment in economic growth of any country is concerned with employment opportunities, increment in assets and infrastructure in any developing country. Foreign Direct Investment indicates a positive trend of investment resulting the increase in GDP and economic growth of the country. The aforementioned studies in theoretical framework also can prove this. In order to increase FDI inflows, there must be investor's concrete benefits and opportunities. Without these, any investment would be unable to make desired results. It is the responsibility of local government to make policies and strategies that would support the efforts and investments being made. For a country like Nepal, the need of the hour is to concentrate on infrastructure development, human resource training, encouraging local entrepreneurs, creation of a stable macroeconomic environment and ensuring opportunities that would be conducive for investors and provide momentum to the developmental process.

## **VI. Recommendations**

The regression results confirmed that an increase in FDI and inflation has positive impact in GDP of Nepal. So the authorities should positively concentrate on maximum utilization of resources to increase FDI for increasing GDP. Effective and encouraging FDI is required from the public sector to restore the confidence of the investors. Government should make a business friendly environment that provides pace to attract huge FDI. As Nepal is a developing country, fundamental attempts could be taken to attract FDI in this sector. In Nepal, the major setback against FDI growth is economic and political instability, so serious measures in the following areas should be taken that will positively result into an increase in the rate of the FDI growth in Nepal.

### **A. Maintaining business friendly environment**

In order to attract large FDI, business friendly environment is the must. The country should focus on developing human capital and technology jobs for unskilled population when compared with service sector.

### **B. Focus on education system**

Nepal's educational sector is not on its last legs. Education system of Nepal requires a smooth development to attract the foreign and domestic investors.

### **C. Political stability**

Political stability is required for economic certainty. When a country experiences politically stable environment, the financial sector also gets flourished.

### **D. Improved Infrastructure**

When there is improved infrastructure in a country, growth of economy is certain assisting as the best attractive host for FDI.

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