IMPACT OF FOREIGN DIRECT INVESTMENT ON GROSS DOMESTIC PRODUCT IN ETHIOPIA

Wasihun Tiku Moges
School of Management Studies, Punjabi University, Patiala
Po Box: 147002, India

Dr. A.S.Chawla
School of Management Studies, Punjabi University, Patiala
Po Box: 147002, India

ABSTRACT

The world has increasingly accepted that private capital has a vital role to play in economic development. Foreign direct investment (FDI) throws into capital accumulation and technological progress and is an imperative catalyst for industrial development. The objective of this study is investigating the impact of foreign direct investment on gross domestic product in Ethiopia over the period of 2000-2013/14. The study is based on secondary data. The study used time series data *and ordinary least square (OLS) method. The major findings of this study are the average contribution of foreign direct investment on gross domestic product (GDP) is 2.34 percent within the study periods; foreign direct investment has a positive and medium correlation with growth domestic product and foreign direct investment has a positive effect on gross domestic product in Ethiopia, but statistically insignificant. Based on the finding the researcher recommended that the government should attract more foreign direct investment by opening more to the external world, improving domestic infrastructure, undertake more economic reforms, providing financial incentives, promoting local skill development, devalued its currency and improve national saving and investment.*

Key Word: *Economic Reform*, *FDI, Inflation, GDP, Trade Openness.*

INTRODUCTION

Foreign direct investment can play a vital role in achieving rapid economic growth in developing countries. FDI used as bridging the gap between domestic saving and investment and bringing the latest technology and management know-how from developed countries. Its potential benefits include employment generation and growth, stimulate domestic investment, promote export, supplementing domestic savings, integration into the global economy, raising skills of local labor, transfer of modern technologies, enhanced efficiency, management skills and potential collaboration and business opportunities for local businesses.

According to World investment Report (2007) defined as foreign direct investment is an investment involving a long-term relationship and reflecting a long-lasting interest and control by a resident entity in one economy in an enterprise resident in an economy other than that of the foreign direct investor Foreign direct investment means that the investor exerts a momentous degree of influence on the management of the enterprise resident in the other economy; such investment involves both the initial transaction between the two entities and all subsequent transactions between them and among foreign affiliates, both incorporated and unincorporated FDI may be undertaken by individuals as well as business entities .

According to Khan and Khilji (2013) explained that many developing countries have increasingly turned to foreign direct investment as a source of the capital, technology, managerial skills, and market access needed for sustained economic growth and development. The move towards more open FDI regimes has been accompanied by a shift in many countries towards greater deregulation of economic activity and greater reliance on market forces in their domestic as well as external economies (Ibid).

Therefore, over the past decade there has been a significant increase in domestic investment in Africa both in monetary terms and as a percentage of gross domestic products (GDP). For instance, in 2010 domestic investment in Africa was about $353 billion compared to $100 billion in 2000. In addition, the share of domestic investment in GDP rose from about 17 percent in 2000 to 21 percent in 2010 (UNCTAD, 2013). Although the increase in domestic investment in Africa is significant, it is worth reminding that the share of investment in GDP in Africa is well below the investment share of other developing regions, in particular developing countries in Asia, where the share was about 35 percent in 2010 (Ibid). In this observe, there is a need for African countries to raising their investment ratios to the levels observed in rapidly growing emerging developing countries to enhance prospects for sustained economic growth.

STATEMENT OF THE PROBLEM

Most countries in the world compete and welcome for foreign direct investment for the reason that foreign direct investment is an engine of economic development of the host countries. The world has increasingly accepted that private capital has a vital role to play in economic development. Foreign direct investment throws into capital accumulation and technological progress and is an imperative catalyst for industrial development*.*

The Ethiopian economy has grown from time to time, but Ethiopia's gross domestic savings a proportion of GDP is quite low, and it is unlikely to achieve this growth rate by mobilizing the meager domestic savings. Improvements have enhanced the role of the private sector in the Ethiopian economy, but its potential to increase investments and drive growth has not been fully exploited. In 2010/11 the private sector's share of gross capital formation in GDP was only 6.9 percent, which can be explained by both external and internal factors (African Economic Outlook, 2012). The current government of Ethiopia has realized the insufficiency of the domestic capital and opened several economic sectors to foreign investors. The government designed different strategy to encourage foreign investment like issued several investment incentives, duty-free importation, including tax holidays, of capital goods and export tax exemption. However, Ethiopia's performance in attracting foreign direct investment is very poor compared to many African countries. For instance, Ethiopia accounted for only 1.4 percent (135 million) of the total FDI flows (9.621 billion) coming to Africa in 2000 and in 2011 Ethiopia accounting foreign direct investment for only 1.32 percent (626.5 million) from the total foreign direct investment flows (47.598 billion) coming to Africa (UNCTAD,2012). Generally, the inflow of foreign direct investment to Sub-African countries is very low relative to another part of the world. In addition, there is the lack of adequate and recent organize documents about the impact of foreign direct investment on gross domestic product in Ethiopia. Hence, the researcher would try to investigate the impact of foreign direct investment on gross domestic product in Ethiopia.

OBJECTIVE OF THE STUDY

The general objective of this study is investigate the impact of foreign direct investment on gross domestic product in Ethiopia

RESEARCH HYPOTHESIS

Null Hypothesis

HO: $\beta_1=0$ (Foreign direct investment does not have a statistically significant effect on gross domestic product)

Alternate Hypothesis

H1: $\beta_1 \neq 0$ (Foreign direct investment has a statistically significant effect on Gross Domestic Product)

REVIEW RELATED LITERATURES

Borensztein et al (1998) studied that how foreign direct investment affects economic growth. The results indicated that foreign direct investment is an important vehicle for the transfer of technology, contributing relatively more to growth than domestic investment. However, the higher productivity of FDI holds only when the host country has a minimum threshold stock of human capital. Thus, FDI contributes to economic growth only when a sufficient absorptive capability of the advanced technologies is available in the host economy.

Wah Hak (2011) investigated that the impact of international trade and foreign direct investment on economic growth using a panel of 89 countries from 1985 to 2005. He concluded that foreign direct investment has significant effects on economic growth. While the international trade does not significantly influence economic growth, human capital does. The presence of a democratic government also brings positive effects to growth in real GDP per capita.

Kumar (2012) investigated the trend of FDI in India and its impact on economic growth. The results indicated that India has witnessed the increase in the flow of FDI from the US $ 4029 million in 2001-01, to US$ 36396 million on 2013. Furthermore, India has witnessed a year-on-year (y-o-y) growth of 24.2 percent in FDI to touch US$ 3.95 billion in 2013 as against US$ 3.18 billion during the same period in 2012. Moreover that the Flow of FDI in India is showing a positive trend and is a very positive signal for Indian Economy, The Inflow of FDI and FII in India has positive relationship between each other, The FDI is significantly contributing in the economic development of India as it has the positive correlation coefficient of 0.6 with Indian GDP and Service sector of India is the second fastest growing services sector with CAGR at 9 percent, just below China's 10.9 percent, during the last 11-year period from 2001 to 2012.

Mehra (2013) studied the impact of foreign direct investment on employment and gross domestic product in India. The result showed that foreign direct investment inflows have the maximum impact on the gross domestic product of India. The country is estimated experience a growth of 23.6 percent with a 1 percent increase in the inflows of Foreign Domestic Investment. In addition, the impacts of foreign direct investment on the public, private and total employment are not very satisfactory which is the negligible amount of employment generated in both, the public and the private sector, even though there is a large amount of FDI inflows in the economy. The total employment levels have also increased only by about 4.1 percent which is not an adequate overall development of the country. This accounts for 'jobless growth' of the country. Even though the economy is growing, there is no improvement in the levels of employment, hence no increase in the per capita income.

Christopher (2012) investigated that impact of foreign direct investment on economic growth in Nigeria. The study employed multiple regression models and time series data (1986-2007). He concluded that there was a positive relationship between FDI and GDP during the period under review. While its contribution to economic growth in Nigeria was not statistically significant, the study indicated that FDI has the potential to significantly impact upon the economy. Lastly, he suggested that the need for maintaining a stable economic growth and low inflation, improved investment in human capital development to build the stock of capital available in the country, the need to overhaul the tax and duty mechanisms to curtail widespread tax evasion, corruption and poor quality services; and the need to increase national savings and investments.

RESEARCH METHODOLOGY AND RESEARCH MODEL

SOURCE OF DATA: the researcher used quantitative and qualitative data from secondary sources. The major data sources are world investment reports published by the United Nations Conference on Trade and Development (UNCTAD), Ethiopian Investment Authority (EIA), National bank of Ethiopia, Minister of finance, international monetary fund (IMF), Africa business journal, books, articles and related sources. It is a time series data and the relevant data have been collected for the period 2000 to 2013/14.

SCOPE OF THE STUDY: the study would focus on examining the effect of foreign direct investment on gross domestic product in Ethiopia. The study was also delimited to the time period which is covered only from 2000 to 2013/14 because the recent data are more valuable and better to give relevant recommendations.

RESEARCH MODEL: The researcher used ordinary least square method (OLS), annual growth rate and compound growth rate method. This model analyzes the effect, annual growth rate and compound growth rate of foreign direct investment on GDP in Ethiopia.

$$LogGDP = \beta_0+\beta_1 FDI+\beta_2 Traopp+\beta_3 Infl+\varepsilon \text{------------------------ } (1)$$

Where: LogGDP- Gross Domestic Product, measured in million US dollar

FDI- Foreign Direct Investment, measured in million US dollar

Traopp- trade openness

Infl- inflation

ε-error

$$AGR = (X2- X1)/ X1 \text{---------------------- } (2)$$

Where: AGR =Annual growth rate

X1 =first value of variable X

X2 = second value of variable X

$$CAGR\ (t0, tn) = (V(tn)/V(t0))1/tn – t0 -1 \text{ -----------------}(3)$$

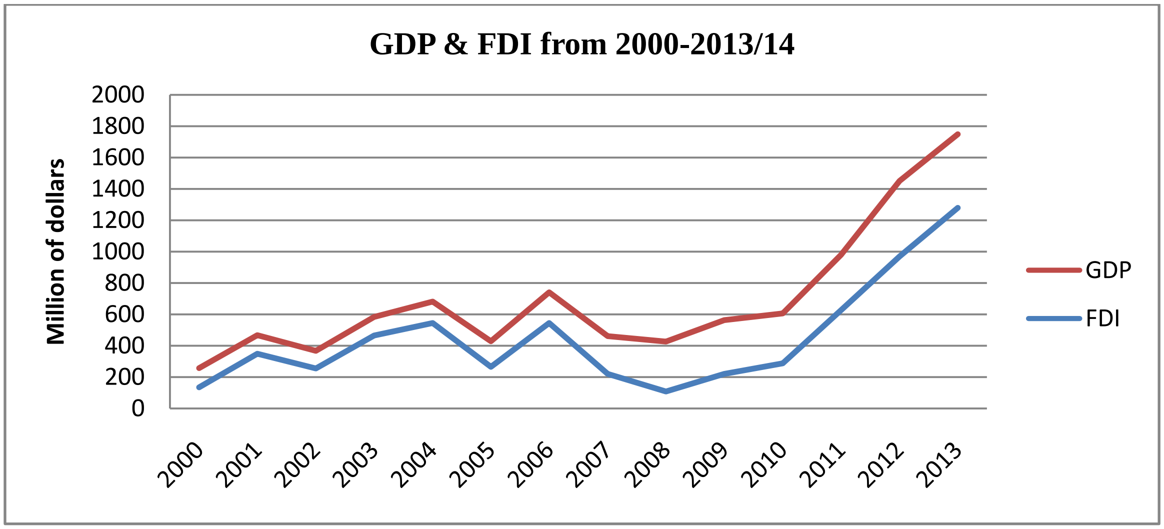
Where: CAGR (t0, tn) = Compound annual growth rate,

V (t0)= start value, V (tn)=finish value,

tn – t0= number of years

DATA ANALYSIS AND PRESENTATION

❖ Contribution of FDI on GDP



Source: UNCTAD, database

Figure 1: The Contribution of FDI on GDP

Figure 1 depicts the behavior of GDP and FDI in 2000-2013/14. From 2000 to 2013/14, net FDI inflows have seemed to have a positive trend even though it had not been increasing every year and tend to be relatively fluctuating, but it increased from 135 million in 2000 to 953 million in 2013/14, which is an increase by 15 percent. Similarly, the GDP has also a positive trend except 2002 that is it increased from 8030 million dollars in 2000 to 46017 million dollars in 2013/14, which is an increase by 13 percent. Generally, there is a positive relation between GDP and FDI. In 2000, the contribution of FDI on GDP is 1.7 percent, but in 2013/14 the contribution of FDI also 2.18 percent of GDP. The average contribution of foreign direct investment on gross domestic product is 2.34 percent within the study periods; it implies that it is very small contribution of FDI on GDP, but the contributions of FDI on GDP also increase from time to time due to government awareness also increase from time to time, cheap labor available, improved human capital, improved infrastructure and political stability.

❖ Descriptive statistics

Table 1: Descriptive statistics

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. summarize LogGDP FDI Tropp Infl
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Variable	Obs	Mean	Std. Dev.	Min	Max
LogGDP	14	10.29805	.432942	9.886491	11.47712
FDI	14	3.75e+08	2.29e+08	1.09e+08	9.53e+08
Tropp	14	.3126429	.1005796	.024	.408
Infl	14	172.5604	110.8392	71.6287	394.204

Source: own survey

Table 1 indicated that the mean value of foreign direct investment inflow into Ethiopia is 375 million dollars and it deviates from the average mean value by 229 million dollars. The minimum value and the maximum value of foreign direct investment inflow into Ethiopia are 109 and 953 million dollars respectively. The mean value of the gross domestic product (Log GDP) is 10.3 (3.95e+10) dollars and its deviates from the average mean value by 0.43 (7.58e+10) dollar. The minimum and maximum value of the gross domestic product are 9.88(7.69e+09) and 11.47(2.99e+11) dollars respectively. The mean value of trade openness is 0.31 and it the deviation by 0.100. The lowest and upper limit values of trade openness in Ethiopia are 0.024 and 0.408 respectively. The value of trade openness is indicated the free movement of trading, so 0.31 values showed that less movement of trading existed in Ethiopia. The mean value of inflation rate in Ethiopia is 172.5 percent and it a deviation from the average value by 110.8. The minimum and maximum values of inflation rate are 71.6 percent and 394.2 percent respectively. Generally, the mean value of foreign direct investment is 375 million dollars which are a small contribution on economic development and the mean value of the gross domestic product is 3.95e+10 dollars.

- **Correlation**

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. pwcorr LogGDP FDI Tropp Infl
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	LogGDP	FDI	Tropp	Infl
LogGDP	1.0000			
FDI	0.3695	1.0000		
Tropp	0.0868	-0.4730	1.0000	
Infl	0.7986	0.4416	-0.2906	1.0000

Source: own survey

Table 2: Pearson correlation

Table 2 shows that the Pearson correlation coefficient of foreign direct investment is 0.3695. As the sign of Pearson correlation coefficient is positive, it can be concluded that there is a positive correlation between foreign direct investment and gross domestic product; that is foreign direct investment increases as FDI also increases. Thus, foreign direct investment has a medium strength correlation. The correlation coefficient of trade openness is 0.0868. As the sign of Pearson correlation coefficient is positive, it can be concluded that there is a positive correlation between trade openness and gross domestic product; that is trade openness increases as the gross domestic product also increases. Therefore, trade openness has a small strength correlation. Moreover, trade openness has a negative correlation with foreign direct investment that is -0.473, but medium strength correlation. The Pearson correlation coefficient of inflation is 0.7986. As the sign of Pearson correlation coefficient is positive, it can be concluded that there is a positive correlation between inflation and gross domestic product; that is inflation increases as the gross domestic product also increases. Hence, inflation has a moderate strength correlation. In addition, inflation has a positive correlation with foreign direct investment that is 0.4416; it implies that inflation has a medium strength correlation with FDI. Inflation has a negatively correlated with trade openness (-0.2906) and it has small strength correlation. Generally, foreign direct investment, trade openness and inflation have a positive correlation with the gross domestic product that is 36.94 percent, 8.68 percent, and 79.86 percent respectively. Foreign direct investment has a positive and medium correlation with the gross domestic product so the government is reduced the constraints of foreign direct investment when in order to increase gross domestic product.

❖ REGRESSION RESULT

Table 3: Regression Results (2000-2013/14), Dependant Variable: Gross domestic product

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. regress LogGDP FDI Tropp Infl

      Source |       SS       df       MS              Number of obs =      14
-------------+------------------------------           F(  3,    10) =   11.58
       Model |  1.89209417     3  .630698058           Prob > F      =  0.0014
    Residual |  .544609865    10  .054460986           R-squared     =  0.7765
-------------+------------------------------           Adj R-squared =  0.7094
       Total |  2.43670404    13  .187438772           Root MSE      =  .23337

------------------------------------------------------------------------------
      LogGDP |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         FDI |   3.83e-10   3.43e-10     1.11   0.291    -3.83e-10    1.15e-09
       Tropp |   1.827479   .7343355     2.49   0.032      .191277     3.46368
        Infl |   .0032514   .0006543     4.97   0.001     .0017934    .0047094
       _cons |    9.02192   .3234323    27.89   0.000     8.301268    9.742572
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*Significant at 5% level

Table 3 indicates that foreign direct investment has a positive effect on the gross domestic product, but this variable is statistically insignificant. The result shows that there is a small contribution or effect of FDI on GDP because there are many factors exist such as not free open market, undeveloped infrastructure and low human capital. One unit of change in the FDI will increase 3.83e-10 units' changes in the GDP in Ethiopia. Therefore, foreign direct investment has a positive effect on gross domestic product in Ethiopia but statistical insignificant so the null hypothesis is accepted because the statistical insignificance a significant level α is 0.05. In addition, the value of R-squared (R^2) is 0.7765 which show that the independent variable explains 77.65 percent of the variable of the dependent variable. The overall value of P-value is 0.0014, this implies that the independent variables are statistically significant and predict of dependent variables because the p-value is less than 0.05. This result is agreed with Kumar (2012), Christopher (2012) and Gudaro et al (2012) that foreign direct investment has a positive impact on economic growth.

CONCLUSION AND RECOMMENDATION

Since, 2000 the contribution of foreign direct investment on gross domestic product is 1.7 percent, but in 2013/14 the contribution of foreign direct investment also 2.18 percent on gross domestic product. The average contribution of foreign direct investment on gross domestic product is 2.34 percent within the study periods; it implies that it is very small contribution of FDI on GDP, but the contributions of FDI for GDP also increase from time to time due to government awareness also increase from time to time, cheap labor available, improved infrastructure and improved political stability. The mean value of foreign direct investment is 375 million dollars which are a small contribution for economic, the mean value of the gross domestic product is 3.95e+10 dollars. Foreign direct investment, trade openness and inflation have a positive correlation with the gross domestic product that is 36.94 percent, 8.68 percent, and 79.86 percent respectively. Foreign direct investment has a positive and medium correlation with the gross domestic product so the government is reduced the constraints of foreign direct investment when in order to increase gross domestic product. Foreign direct investment has a positive and small effect on GDP in Ethiopia, but the null hypothesis is accepted because the statistical insignificance a significant level α is 0.05. In addition, the value of R-squared (R^2) is 0.7765 which show that the independent variable explains 77.65 percent of the variable of the dependent variable. The overall value of P-value is 0.0014, this implies that the independent variables are statically significant and predict of dependent variables because the p-value is less than 0.05. Based on the finding the researcher recommended that the government should attract more foreign direct investment by open more to the external world, undertake more economic reforms, improving domestic infrastructure, providing financial incentives, promoting local skill development and devalued its currency and improve national saving and investment.

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