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Impact of Foreign Direct Investment on Economic Growth of Albania

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ABSTRACT   *Foreign direct investment (FDI) is a very important segment of economic activity of a country, due to the effects that bring the latter. Albania, like other South-East European countries, opened its economy to FDI because it expected foreign capital to speed up the process of transformation and economic growth. Given contrasting evidence in the literature pertaining to the impact of FDI on the economy and in order to attract or channelize FDI in the host country, there is a need for country-specific study and its policy analysis. We take the case of Albania and test the FDI-growth nexus for this nation. The data used in this study has spanned over the period of 1992 till 2012. Besides FDI, four other variables Debt, Trade, Inflation and Domestic Investment have been included in the study, to regress upon GDP of this country. Our findings indicate that Albania's economic performance in the long run is positively affected by FDI while in the short run it was positively affected as well as by trade and negatively affected by the inflation.*

KEYWORDS : Foreign Direct Investment, economic growth, human capital, technological progress.

1. Introduction

Foreign direct investment (FDI) is a very important segment of economic activity of a country, due to the effects that bring the latter. Both in theory and in practice, the effects of FDI on the economy recognized. FDI is an important vehicle of technology transfer from developed countries to developing countries. FDI also stimulates domestic investment and facilitates improvements in human capital and institutions in the host countries.

Albania, like other South-East European countries, opened its economy to FDI because it expected foreign capital to speed up the process of transformation and economic growth. In Albania, FDI is often regarded as the locomotive of the economy, since their concentration was in important sectors of the economy. FDI inflows amounted to one fifth or more of the value of gross domestic capital formation in the recent years and financed nearly half of the country's current account deficit. Foreign affiliates play an important role in the Albanian economy in terms of investment activity, value added, production, and employment. High foreign participation indicates favorable conditions for FDI in several industries in the country.

In order to attract or channelize FDI in our country there is a need for country-specific study and its policy analysis. The policy regime, infrastructure situation / capital formation, technology status, labor education status will be the determinants for the causality and effects of FDI and economic growth. Given contrasting evidence in the literature pertaining to the impact of Foreign Direct Investment on the host country's economy, the objective of this paper is to investigate the existence and the nature of the effect of FDI on the rate of growth in Albania. The data used in this study has spanned over the period of 1992 till 2012. Besides FDI, four other variables Debt, Trade, Inflation and Domestic Investment have been included in the study, to regress upon GDP of this country. Our findings indicate that Albania's economic performance in the long run is positively affected by FDI, while in the short run it was positively affected as well as by trade and negatively affected by the inflation.

2. The impact of FDI on the economic growth: Literature review

The main macroeconomic perspective of FDI is that of linking FDI to economic growth of the host country. Theories of economic growth focus on the increasing of the real income per capita, and this variable is related with many other factors such as capital accumulation, population growth, technological progress and the discovery of other natural resources.

The effects of FDI on the economic growth have significant policy implications. If FDI has a positive impact on economic growth, then a host country should encourage FDI flows by offering tax incentives, infrastructure subsidies, import duty exemptions and other measures to attract FDI. If FDI has a negative impact on economic growth, then a host country should take precautionary measures to discourage and restrict such capital inflows.

There is an abundance of empirical studies on the FDI-growth nexus and the determinants of FDI inflows. So, Saltz (1992) examined the effect of FDI on economic growth for the developing countries. The results of his empirical study revealed a negative correlation between the level of FDI and growth during the period 1970-1980.

Blomstrom *et al*. (2001) and Coe *et al*. (1997) found that for FDI to have positive impacts on growth, the host country must have attained a level of development that helps it reap the benefits of higher productivity.

Borensztein et al. (1998) examined the impact of FDI on economic growth in 69 developing countries for the periods 1970–1979 and 1980–1989. They found that: (i) FDI inflows influence positively economic growth, and (ii) FDI and domestic investment were complementary.

Barrell and Pain (1999) explored the benefits of FDI by multinationals in some European Union countries and found that FDI may affect the host country's economy positively through transfers of technology and knowledge to the host economy.

Carkovic and Levine (2002) tried to reassess the relationship between FDI and economic growth for 72 countries over the period 1960-1995. Their results indicated that FDI inflows did not exert an independent influence on economic growth, even allowing for the level of education, the level of economic development, the level of financial development and trade openness of the host country.

Alfaro, et al. (2004) examined whether economies with well developed financial markets are able to benefit and increase their economic growth with the attraction of FDI. They argued that the lack of development of the domestic financial markets can reduce the domestic economy's ability to benefit from potential FDI spillovers.

Thomas, et al. (2008) has argued that multinational corporations' investments in the host country impose the pressure on the local firms to develop new technologies and innovate. This also explains the reason the developing countries are interested in taking measures that attract FDI. Largely, the developing countries face the issue of gap between savings and investment which has to be bridged by FDI. This results in technology transfer, job creation, and productivity increase and competition enhancement.

Esther & Folorunso (2011) have investigated the impact of FDI flows on economic growth in Nigeria. Their study found that FDI had a beneficial impact on the economic growth. However, they also report that the extent to which FDI influences the economic growth positively could be limited by human capital.

The Western Balkan is considered by many current and prospective investors to offer opportunities as Europe's next high-growth business location. The characteristics driving investment in this region include the access it offers to a growing market of over 150 million consumers; a multilateral agreement for the region CEFTA; a cost-competitive overall operating environment; the availability of skilled labor and a strong work ethic; availability of raw materials; and a rapidly improving investment climate.

In the Western Balkan the largest FDI inflows have been strongly linked to privatisation in sectors such as telecommunications, banking, and oil refining. The widespread foreign investment in the banking sector has integrated the region into global finance and capital markets, reducing interest rates, increasing the availability of loans, and providing a strong stimulus to economic growth. FDI is mainly responsible for export structure reorientation of the Balkan countries to products that embody high qualified labor and top technology. The foreign companies had already contributed to the integration of the East-European producers in the suppliers' networks or in the transnational production and international commercial networks.

3. Methodology and Empirical Results

The data for Albania are taken from World Development Indicators, deemed reliable. The time series data pertains to years 1992 till 2012 because of missing data in early periods for several time series we have chosen this time period.

$$GDP_t = \beta_0 + \beta_1 FDI_t + \beta_2 TDS_t + \beta_3 GCF_t + \beta_4 INF_t + \beta_5 T_t + \varepsilon_t$$

The model consists of six variables: The dependent variable is GDP per capita (in order to consider the population growth) and the independent variables are: Foreign Direct Investment (FDI), Total Debt Service (TDS), Gross Capital Formation (formerly gross domestic investment) as percentage of GDP, Inflation as GDP deflator (annual %), and Trade as percentage of GDP. The subscript "t" represents respective variables at time t.

First we have regressed on GDP per capita all the independent variables exactly as they are without testing for stationarity and the following results were obtained (Table 1), just to show the relationship between them and the impact on GDP:

Table 1: Summary of results for time series of 1992-2012 (No stationarity test for variables)

Variables	Coefficients		t-statistic	P-value
Constant	-1579.250		-1.539	0.145
FDI	1.16E-006		3.669	0.002*
Debt	40.397		0.866	0.400
Inflation	-12.598		-4.704	0.400
Trade	46.240		3.254	0.005*
GCF	2.338		0.103	0.919
Adjusted R^2		0.947		
Durbin Watson Statistic		1.503		
F-Statistic		72.287		
Probability (F-Statistic)		0.000*		

*significant at 5% level of significance

What we can immediately notice in this regression with no stationarity is the positive relationship between GDP, FDI and Trade and the negative relationship between GDP and Inflation. Although the model is highly significant it does not stand in the long run as the residuals tested were not stationarity.

Thus, before running the Ordinary Least Square (OLS) Method again to approximate the coefficients of the regression equation in the long run, we tested for the stationarity of all the variables. The stationarity of the time series is tested using the graphical approach, the correlogram test and the Box – Ljung Statistic under the null hypotheses that "*the sum*

of all squared estimated autocorrelation coefficients is zero".

Each time series is tested for stationarity and it is found that only TDS is stationary at I (0). FDI, GCF and GDP are stationary at first difference I (1) while INF and T are stationary at second difference I (2). Results are shown in Appendix, Table A.

Table 2: Summary of results for time series of 1992-2012 First attempt with stationary variables

Variables	Coefficients	t-statistic	P-value
Constant	318.093	1.756	0.103
FDI	9.12E-007	3.641	0.003*
Debt	-33.340	-1.089	0.296
Inflation	1.065	0.526	0.607
Trade	-0.051	-0.009	0.993
GCF	21.350	1.784	0.098**

Adjusted R^2	0.496
Durbin Watson Statistic	1.411
F-Statistic	14.541
Probability (F-Statistic)	0.013*

*significant at 5% level of significance
**significant at 10% level of significance

Table 3: Summary of results for time series of 1992-2012 Finally results with stationary variables

Variables	Coefficients	t-statistic	P-value
Constant	128.635	2.916	0.009*
FDI	9.81E-007	4.097	0.001*

Adjusted R^2	0.454
Durbin Watson Statistic	1.609
F-Statistic	16.782
Probability (F-Statistic)	0.001*

*significant at 5% level of significance

Our findings indicate a positive and significant relationship between our focus variable FDI and dependent variable GDP at a level of significance of 5%. Adjusted R^2 of 0.454 explains how much of the variability in GDP is explained by FDI. However, co-integration must exist for this relationship to be long-term. According to Engle - Granger procedure, co-integration exists if the residuals are found to be stationary (Engle & Granger, 1987). Hence, we employed the Box-Ljung test for this purpose and found to be stationary. And therefore we conclude that the positive relationship of FDI and GDP hold in the long run. Table 4 shows the residuals test for stationary.

Table 4: Residuals test for stationary

	Residuals
Lag	Sig*
1	.385
2	.646
3	.775
4	.717
5	.563
6	.371
7	.270
Conclusion	Stationary

*based on the asymptotic chi-square approximation using Ljung – Box statistic

CONCLUSIONS

The empirical evidence found in our study led us to expect that the foreign direct investment in a developing nation like Albania would be positively affecting its economic performance and growth. Trade and Debt (Table 2) have been found to negatively influence Albania's economic performance but as it can be shown in our first attempt they were not significant as well as Domestic Investments and Inflation. A developing nation like Albania has experienced dynamic periods. Probably the most dynamic periods, offering a wide variety of developments and opportunities started in 1992. It coincides with the first and most important financial and monetary reforms, Albania's membership

in IMF and WB, the 1997 pyramidal schemes turmoil, and the denationalization of banks.

Moreover, in our study, the nexus of the FDI variable with GDP per capita is also proved to hold in the long run. Hence, economic policies encouraging FDI in Albania should be formulated and implemented. This probably can be explained by the capacity of the host country to absorb the transfer of knowledge and technology for further development and the employment of Albanian citizens.

APPENDIX
Table A: Variables test for stationary

	INF I(2)	FDI I(1)	GCF I(1)	TDS I(0)	T I(2)	GDP I(1)
Lag	Sig*	Sig*	Sig*	Sig*	Sig*	Sig*
1	.437	.693	.878	.730	.404	.722
2	.306	.511	.642	.344	.464	.647
3	.259	.716	.402	.472	.673	.543
4	.383	.836	.398	.641	.743	.679
5	.512	.909	.509	.738	.796	.716
6	.637	.824	.584	.836	.841	.471
7	.734	.862	.235	.881	.908	.456
Conclusion	Stationary	Stationary	Stationary	Stationary	Stationary	Stationary

*based on the asymptotic chi-square approximation using Ljung – Box statistic

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