THE NEXUS BETWEEN INSTITUTIONAL FACTORS AND FOREIGN DIRECT INVESTMENTS IN DEVELOPING COUNTRIES IN EUROPE

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Abstract: This paper tries to analyze the effects of institutional factors that affect FDI on developing economies in Europe by utilizing dynamic panel methodology, having into consideration the persistence of the endogeneity issues. Moreover, four institutional factors have been determined affecting the FDI in 15 developing European countries, analyzed for the time period 2004 – 2016.
In addition, empirical results show that Control of Corruption; Political Stability, and Doing Business, have significant effect on attracting FDI on these transition countries, while Rule of Law has shown to be insignificant in attracting FDI flows in these countries.
Further, such findings will contribute to the existing literature by using these institutional measures to value their impact on FDI attractiveness on European developing economies.
Keywords: institutional factors, FDI, panel, developing economies.

INTRODUCTION

The relationship among institutional factors and FDI is analyzed from different scholars regarding the vital role of institutional framework on FDI attractiveness. Moreover, developing economies must have good institutional framework in attracting FDI flows, since the decision of the foreign investors depend on various dimensions of their institutions.
In addition, the importance of FDI attractiveness in developing countries and the role of institutional factors on this process has been emphasized in many research papers, although most of them has been focusing on fixed static panel data methodology, while this paper analyses the dynamic nature of this relationship.
There exist several papers trying to investigate the dynamic relationship among institutional factors and FDI flows, through the employment of Arellano and Bond (1991) differenced GMM methodology, however this is among the first to address this methodology for 15 developing countries in Europe.
In addition, our research focuses on investigating the effects of institutional factors on FDI flows attractiveness through the dynamic panel methodology of Arellano and Bond (1991), present in Daude and Stein (2007); Busse and Hefeker (2007); Okada (2013); Asiedu (2013); Kurul and Yalta (2017).
The results from the dynamic panel model suggest that institutional indicators such as Governance Corruption; Political Stability and Absence of Violence and Distance to frontier score (Doing Business) have positive and significant effect on attracting FDI flows on these transition countries.
Finally, the paper structure is as follows: section 2 involves brief overview of the relevant literature section 3 is covering the research methodology and data, while section 4 deals with the empirical findings. Conclusions and recommendations are presented in the last section of this paper.

LITERATURE REVIEW

The relationship among FDI and institutional indicators is present in many papers due to its importance and relevance in the developing countries. Thus, Bailey (2018), investigated the relationship between institutional factors and FDI flows, revealing a positive relationship between institutional factors such as democratic institutions, political stability, rule of law and FDI flows. In addition, corruption, tax rates and cultural distances had negative relationship with FDI flows.
Further, Kurul & Yalta (2017), in their study that was consisted of 113 developing countries conducted for the time period 2002-2012.
Further, the impact of political instability makes the country less attractive because it creates an unpredictable environment (Buthe & Milner, 2008; Loree & Guisinger, 1995; Woodward & Rolfe, 1993) and reduces the inflow of FDI (Schneider & Frey, 1985). In addition, Campos & Nugent (2003); Loree & Guisinger (1995); Sethi et al., (2003); Woodward & Rolfe (1993); suggest positive and significant effect of political stability on FDI flows.

Moreover, Gani (2007) in his paper reveals that control of corruption, political stability and rule of law have positive effects on FDI flows. While authors Globerman & Shapiro (2003); Kobrin (1976) findings suggest that political stability does not affect the flow of FDI.
Further, Asiedu (2006) conducted a research of this nexus for 22 African countries for time spin 1984-2000, suggesting that corruption, lack of rule of law and political instability hamper FDI inflows.

RESEARCH METHODOLOGY AND DATA

The empirical analysis of this paper is based on a set of 15 countries for the time period 2004-2016 in order to investigate the relationship between institutional factors and FDI flows. In addition, dependent variable is FDI inflow as percentage of GDP, while as institutional factors are: Control of Corruption; Political Stability, rule of law and Doing Business. Further all annual data are collected from the World Bank database.

Table1: Variables and sources

VARIABLE	DEFINITION	SOURCE
fdi	FDI as percentage of GDP	World Bank database
fdi (-1)	First lag of FDI as percentage of GDP	World Bank database
cc	Corruption control	World Bank database
sp	Political stability and absence of violence	World Bank database
db	Doing Business	World Bank database
rl	Rule of law	World Bank database
gdpc	GDP per capita	World Bank database
u	Unemployment rate	World Bank database
pt	Profit tax rate	World Bank database

Below it is represented the basic model of this paper:

$$FDI_{it} = \beta_1 FDI_{i\,t-1} + \beta_2 INSFAC_{it} + \beta_3 X_{it} + u_{it}$$

where:
FDI_{it} represents the Foreign Direct Investments as percentage of GDP,
$FDI_{i\,t-1}$ represents the first lag of Foreign Direct Investments,
$INSFAC_{it}$ represents the institutional factors and
X_{it} represent the vector of control variable that might affect the dependent variable.

The existence of endogeneity problems between the dependent variable and explanatory variables and the autocorrelation problem when one lagged dependent variable is included in the regression, this paper employs Arellano and Bond (1991) difference GMM estimator.
Moreover, in the model there are included some pull factors like as GDP per capita, profit tax and unemployment rate. Also, data for the pull factors has been collected from the World Bank database.

EMPIRICAL FINDINGS

As already mention, differenced GMM has been conducted to analyze the relationship among institutional factors such as control of corruption, rule of law, political stability and doing business and FDI flows in 15 developing countries in Europe for the time spin 2004 – 2016. In addition, the results are presented in the following table:

Table2. Results from differenced GMM (Arellano and Bond)

Dependent variable: **ln fdi**

Variable	Coefficient	St.error	t-statistics	prob
ln fdi(-1)	.5669352	.1408224	4.03	0.000
ln cc	1.515092 *	4.085249	0.37	0.071
ln sp	0.467616 *	.8340895	0.56	0.078
ln db	0.024822 ***	2.099094	0.01	0.010
ln gdpc	1.039179 **	.8804258	1.18	0.021
ln u	.1129329	.8367161	0.13	0.893
ln pt	0.780472 **	.6098222	1.27	0.004
AR(1)	0.011			
AR(2)	0.632			

*statistically significant at 90% level of significance. **statistically significant at 95% level of significance. ***statistically significant at 99% level of significance. For AR(1), H_0 = there is no autocorrelation, for AR(2), H_0 = there exist autocorrelation.
Source: author's calculations.

The empirical results of the differenced GMM reveal that FDI flows depend from the institutional factors on European developing countries. Further, it is suggesting that the control of corruption has a significant and positive effect on attracting FDI flows. These results are in line with the existing findings: Wei (2000); Asiedu (2006); Kurul and Yalta (2017).

In addition, political stability also shows significant and positive effect on FDI flows in European developing countries for the time period 2004 - 2016, consistent with those of Gani (2007); Buchanan et al. (2012) and opposite to Wheeler and Mody (1992) suggesting no significant relationship among these variables. Moreover, rule of law does not reveal any significant impact in FDI flow attractiveness in this set of countries for the time spin 2004 – 2016.

Further, results reveal that Doing Business has significant and positive impact on FDI flows in these transition economies for the time period 2009 – 2016. In addition, this factor is the main novelty in this research, since due to our best knowledge is the first time that it is included as institutional variable on this set of data.

Regarding the pull factors included in this paper, GDP per capita shows positive and significant effect on FDI flow attraction and this results are consistent with Neumayer and Spess (2005); Kurul and Yalta (2017). Moreover, unemployment plays insignificant role on the attraction of FDI flows, while profit tax reveals positive and significant effect on FDI flows in European transition countries, consistent with a large body of empirical findings.

CONCLUSIONS

The impact of institutional framework in the process of attracting FDI flows in transition countries has attracted the attention of many scholars thus debating regarding their nexus in developing countries. In addition, this paper tries to analyze the relationship among institutional factors and FDI flows in 15 European developing economies for the time spin 2004 – 2016, contributing to the existing literature by conducting dynamic panel methodology.

This paper has included four institutional factors: control of corruption, political stability, rule of law and Doing Business and three pull factors such as GDP per capita, unemployment rate and profit tax.

In addition, three institutional factors revealed positive and significant effect on FDI flows in this set of countries for the time period 2004 – 2016, while only the Rule of Law has shown to be insignificant in attracting FDI flows in these countries. In addition, from the pull factors, only unemployment rate has shown to have insignificant relationship with the FDI flow, while GDP per capita and profit tax have positive and significant effect on FDI flows.

These results reveal that governments should play an important role on the institutional policy reforms in their political system in order to attract more FDI inflows. In addition, by improving these institutional factors, they will also improve their investment environment and foreign investment policy.

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