Corporate Governance and Foreign Direct Investment: Evidence from Emerging Economies

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Abstract
Foreign Direct Investment (FDI) can enhance and accelerate the economic advancement by raising the productivity of the labour forces through the inception of modern and sophisticated technology especially for the emerging economy. Several studies found there have been positive relation between the manifold factors like market size, agglomeration, human capital, infrastructure, financial development and geographic location with FDI, however, the role of corporate governance at a national level has been highly neglected because of a lack of comprehensive information. This paper mainly focuses on to explore the relationship between the corporate governance and FDI in the emerging economy. For accomplishing the pertinent tasks we used a panel data set of 48 countries between 1999 to 2014 and for this work we used different tools like Augmented-Dickey Fuller, Ordinary least squares (OLS), Generalized least squares (GLS) and Phillips-Perron unit root test. The major finding of this paper is that there is a positive and significant relationship between corporate governance and FDI. Furthermore, the host country governments should undertake lucid and substantial policies and programs that stimulate inward FDI flows.

Keywords: Human Capital; Corporate Governance; Foreign Direct Investment

1. Introduction
There has been a substantial flow of investment from the different corners of the world because of the widespread practice of globalisation. Foreign Direct Investment (hereinafter FDI) promotes the continuous economic and social development by transferring technology, skill
development, innovation and management efficiency in both developed and developing countries. Various literatures strongly agreed that multinational corporations (MNCs) invest in specific locations mainly because of the host countries’ strong economic fundamentals, such as a large market size, stable macroeconomic environment, availability of skilled labour, and infrastructure that positively influences the country’s FDI inflows (Dunning 1993; Globerman and Shapiro 2002; Shapiro and Globerman 2003). On the contrary, recent literature suggests that location is not the only main consideration for enlarging the FDI; rather, a lot of other factors are also contemplated. Due to the transition of economic and business related functions, corporate governance is one of the major factors considered for facilitating FDI.

The concept of corporate governance was first introduced in 1999 by the Organization for Economic Co-operation and Development (OECD). OECD defines corporate governance as the system by which companies are run and controlled, as well as, the manner in which liabilities and rights are shared by the main actors (shareholders) of an entity. Good Corporate Governance ensures that the business environment is conducive and transparent, which helps the companies to be accountable for their activities.

On the other hand, weak and unstructured corporate governance leads to anarchy, mismanagement, and corruption. It is also important to remember that although Corporate Governance has emerged as a way to manage modern joint stock corporations it is equally significant in state-owned enterprises, cooperatives, and family businesses. Good corporate governance is also a strong foundation for healthy security markets in the long-run; as it reduces speculation and violations of market rules, and thereby, ensure stability in the financial markets. This increases public confidence in firms that also plays an important role in attracting foreign investments (Gibson, 2003).

Studies like Bedő and Ozsvald (2007) and Mejstřík and Mejstřík (2007) contend that firms relying on foreign capital to finance their business activities have to improve their corporate governance system. Enhancement in corporate governance quality considerably accelerates the growth by reducing the firms’ cost of funds and increasing the supply of credit that encourages investment. FDI can accelerate the transition process by forming a basis for more effective corporate governance system and by promoting enterprise restructuring (Djankov and Murrell 2002). Corporate governance has appeared to be one of the major factors that influences investment decisions considerably (Gibson 2003). This study seeks empirical evidence
to support the notion that good corporate governance will result in foreign direct investment.

2. Literature Review

Since 1990 FDI inflow has also been viewed as the most important source of external funding. For both macro-economic (e.g. employment, balance of payment) and micro-economic (e.g. technology, management/organizational culture/style) benefits there is a significant preference among countries, both developed and emerging market economies, to lure more FDIs (Chudnovsky and Lopez 1999; Santiso 2003; Calderon et al. 2004).

Recently, several academic studies stress the importance of an effective corporate governance system in attracting FDI on suitable states (Rajan and Zingales 1998; Claessens and Fan 2002; Gillan and Starks 2003; Leuz and Wysocki 2006).

Traditionally, research on the determinants of FDI flows focuses on ownership, location and internationalization (OLI) factors (Dunning 1988). It is a well recognized fact that good corporate governance is a critical factor for countries, who like to attract FDI or to improve the performance of the firms (Brown and Caylor, 2009; Chalhoub, 2009; Abdullah, 2009). Corporate governance has appeared as one of the major factors that influences investment decisions greatly (Gibson 2003). Emerging nations usually suffer from issues like- poor economic policies, deprived civil society, low levels of education, and weak accountability of public institutions.

Corporate governance ensures transparency, full disclosures and accountability of companies to all its stakeholders (Fernando, 2009). Claessens et al. (2003) believe that good corporate governance practices contribute to firm-level growth and increase return on equity, promote efficiency of firms in favour of stakeholders. The pillars of corporate governance are- accountability, openness and transparency, integrity, commitment, leadership and integration. It is widely claimed (Wei, 1997; La Porta et al., 1998; Alesina and Dollar, 2000; Hausmann and Fernandez-Arias, 2000b; Shatz, 2000) that efficient legal system, low levels of corruption, high degrees of transparency and good corporate governance may have a quantitatively significant impact on a country’s ability to attract foreign direct investment.

Most of the studies have focused on FDI and macro-economic factors; only a few studies examined the relationship between foreign direct investment and corporate governance. Market size (Bander& White (1968), Schmitz & Bier (1972), Wheeler &Mody (1992), Pistoresi

It is well recognized that better institutional quality always encourages investment. Governmental officials, academic expertise and international agreements have increasingly come to recognize a strong relationship between quality of institutions and investment flows. Johnson et al. (2000a) contend that poor corporate governance, which adversely shapes the growth of capital markets and then the development of the economy, has been blamed for financial distress/collapses in emerging market economies.  

A country with lower corporate governance system often fails to receive high FDI inflow. It is argued that countries, irrespective of developed or developing, need to improve the quality of corporate governance system if they want to increase their share of FDI inflows into domestic economy (Claessens et al. 2000; Rueda-Sabater 2000; Garibaldi et al. 2001; Bishop 2002; Berglöf and Pajuste 2005).  

We expect a positive relationship between FDI flows and corporate governance because the hosting countries welcome the investments of foreign companies from countries with high corporate governance in support of the related literature.  

3. Research Methodology  

FDIs are very heterogeneous, changing from country to country. Based on this concentration, this article employs panel data for 48 countries (see Table 1) over the period 1999–2014. To estimate the relationship between corporate governance and FDI we have employed panel data. Panel data studies are crucial to estimation of inter-temporal relations, life-cycle and intergenerational models (Baltagi, 2005). Panel data can include all kinds of information including economic data, social data, institutional data, etc. At first ,we try to observe whether the variables are stationary or not, using Levin, Lin and Chu-t test, Im, Pesaran
and Shin W-stat test, ADF-Fisher Chi-square test and PP-Fisher Chi-square test to the series. We also employ the Ordinary least squares (OLS); the OLS estimator is consistent when the regressors are exogenous and there is no perfect multicollinearity, and optimal in the class of linear unbiased estimators when the errors are homoscedastic and serially uncorrelated. Under these conditions, the method of OLS provides minimum-variance mean-unbiased estimation when the errors have finite variances. Under the additional assumption that the errors be normally distributed, OLS is the maximum likelihood estimator.

We mainly used the panel data. The most commonly used models in panel data analysis are fixed effects (FE) and random effects (RE) regressors in linear regression using ordinary least squares (OLS). Both models have assumptions such as normal distribution, homoskedasticity and no autocorrelation (see e.g. Baltagi, 2005: p.18-19; Yaffee, 2005). We would prefer the RE estimator if we can be sure that the individual-specific effect really is an unrelated effect (RE1). This is usually tested by a (Durbin-Wu-) Hausman test. However, the Hausman test is only valid under homoscedasticity and cannot include in time fixed effect. Since the data have been tested positive for heteroskedasticity the fixed and random effects estimators cannot be expected to be efficient.

This study also used other appropriate panel data analysis methods such as feasible general least squares method (FGLS) and regression with panels corrected standard errors (PCSE) because heteroskedastic models are usually fitted with feasible generalized least squares (EGLS or FGLS). Similarly, PCSE allow for panel-level heteroskedasticity and contemporaneous correlation of observations between the panels. Here we also deploy the Tobit model to describe the relationship between a non-negative dependent variable, and an independent variable.

3.1 Model Specification

To explore the relationship between corporate governance and FDI, we constitute the following equation.

\[
\text{In } \text{FDI}_{it} = \beta_0 + \beta_{1}\text{GOV}_{it} + \beta_{2}\text{LIT}_{it} + \beta_{3}\text{HCEXP}_{it} + \beta_{4}\text{TELE}_{it} + \beta_{5}\text{INF}_{it} + \beta_{6}\text{GDP}_{it} + \beta_{7}\text{TRADE}_{it} + \beta_{8}\text{UMAFR}_{it} + \beta_{9}\text{DUMASI}_{it} + \beta_{10}\text{DUMCEE}_{it} + \beta_{11}\text{DUSAMR}_{it} + \text{V}_{it}
\]

Here,

\[
\text{In } \text{FDI}_{it} = \text{Inward FDI (as } \% \text{ of GDP)}.
\]
Inβ1GOVit= Corporate Governance (mean World Bank governance indicators percentile rank).
Inβ2LITit= Literacy rate (% of adult population).
In β3HCEXPit= Household consumption expenditure (per capital constant).
In β4TELEit= Telephone mainlines (per 1000 people).
In β5INFit= Inflation rate (Consumer price index, annual % increase).
In β6GDPit= GDP per capital (constant USD).
In β7TRADEit= Trade (as % of GDP).
Inβ 8- Inβ10= Regional dummies (Asia, Latin American and the Caribbean, Africa).

3.2 Data Sources

This article employs panel data for 48 countries over the period 1999–2014. The total observation is 48*16= 768. We use FDI inflows measured in current U.S. dollars divided by the host country’s total population as the dependent variable, and data came from UNCTAD. Data on FDI are provided by several sources, such as Balance of Payments Statistics Yearbook and International Finance Statistics by the International Monetary Fund (IMF), European Union Direct Investment Yearbook by EUROSTAT, World Investment Report by UNCTAD, World Development Indicators by the World Bank, and International Direct Investment Statistics Yearbook by OECD. Only the UNCTAD, OECD, and EUROSTAT offer a sectoral breakdown of FDI flows and stocks. The drawback is that OECD and EUROSTAT only cover a very limited number of world countries and thus, the total direct investment received by any given country cannot be completely assessed. Moreover, we are more interested in FDI inflows than FDI stocks because policy recommendations are usually formulated to boost FDI inflows rather than to accumulate FDI stocks for a given period. However, only UNCTAD provides a breakdown into two different categories: FDI figures for developed and for developing countries that really serve our purpose. Thus, I used FDI inflows data from UNCTAD.

Table 1: List of the Countries

<table>
<thead>
<tr>
<th>Asia</th>
<th>Latin America and the Caribbean</th>
<th>Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan, Bangladesh, Bhutan, Brunei, India,</td>
<td>Argentina, Brazil, Bolivia, Chile, Colombia, Costa Rica,</td>
<td>Cameroon, Cote d’Ivoire, Egypt, Ethiopia, Ghana,</td>
</tr>
</tbody>
</table>

Dominican Republic, Guatemala, Ecuador, Mexico, Peru, Trinidad and Tobago, Uruguay, Venezuela.

Kenya, Malawi, Morocco, Senegal, South Africa, Tanzania, Tunisia, Uganda, Zambia, Zimbabwe.

Source: Author’s Compilation

Corporate governance is being treated as an independent variable; we are using the information from the corporate governance scorecard that constitutes mainly concentration from the OECD principles (detailed in the variable description). We accumulate the data from the Global Competitive Index report (2014) for the variable like telephone mainlines (per 1000 people). To determine the effect of other different variables like literacy rate, household consumption expenditure, inflation rate, GDP per capita and Trade, we collect the data from the World Bank’s World Development Indicators (WDI 2014).

Table 2: Descriptions of the Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definition</th>
<th>Expected Sign</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate governance</td>
<td>Corporate governance describes, in short, the legal and de facto regulation framework of the administration and supervision of a company. (Source: von Werder, el. 2003).</td>
<td>(+)</td>
<td>CG score card, OECD.</td>
</tr>
<tr>
<td>Literacy rate</td>
<td>(%) of Adult population (above the age of 15) that have basic reading and writing skills. Xu (2000), Benhabib and Speigel (1994), and Borensztein, De Gregorio, and Lee (1998) argued that even though FDI promotes the transference of technology, the higher productivity in the host country only holds when a minimal level of educational attainment is achieved.</td>
<td>(+)</td>
<td>WDI, 2014</td>
</tr>
<tr>
<td>Variable</td>
<td>Description</td>
<td>Sign</td>
<td>Source</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Household consumption</td>
<td>Market value of all goods and services purchased by households.</td>
<td>(-)</td>
<td>WDI, 2014</td>
</tr>
<tr>
<td>Expenditure per capita</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telephone Mainlines</td>
<td>Telephone mainlines per 1000 people for entire country. Mollick et al. (2006) analysed the role of telecommunications (telephone lines) for FDI and found a positive impact on infrastructure.</td>
<td>(+)</td>
<td>Global Competitive Index, 2014.</td>
</tr>
<tr>
<td>Inflation rate</td>
<td>Consumer price index. Inflation is measured by the consumer price index which measures annual % change in price of a fixed basket of goods.</td>
<td>(-)</td>
<td>WDI, 2014</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>Gross domestic product of a country divided by its total population. Jordan (2004) mentioned that FDI will move to countries with larger and expanding markets, and higher purchasing power, where firms can potentially receive an increased return on their capital and by implication receive higher profit from their investment.</td>
<td>(+)</td>
<td>WDI, 2014</td>
</tr>
<tr>
<td>Trade</td>
<td>Trade (sum of exports and imports in goods and services) as a % of GDP. Trade openness as FDI has emerged as one of the main arguments among economists and policy makers in explaining the growth phenomena in developing countries (Dawson, 2006; Dutta &amp; Ahmed, 2001; Ruiz Estrada Yap, 2006).</td>
<td>(+)</td>
<td>WDI, 2014</td>
</tr>
<tr>
<td>Dummy-Asia</td>
<td>= 1 if country is in Asia, = 0 otherwise.</td>
<td></td>
<td>Indecisive</td>
</tr>
</tbody>
</table>
### Dummy-Latin America and the Caribbean

<table>
<thead>
<tr>
<th>Dummy-Latin America and the Caribbean</th>
<th>1 if country is in LAC, = 0 otherwise.</th>
<th>Indecisive</th>
</tr>
</thead>
</table>

### Dummy-South America

<table>
<thead>
<tr>
<th>Dummy-South America</th>
<th>1 if country is in Africa, = 0 otherwise.</th>
<th>Indecisive</th>
</tr>
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</table>

Source: Author’s Compilation

#### 3.4 Dependent Variable

FDI inflows, measured in current U.S. dollars, divided by the host country’s total population as the dependent variable, and data has been derived from UNCTAD.

#### 3.5 Testing Variable

Corporate governance “is the relationship among various participants in determining the direction and performance of corporations” (Monks and Minow, 2001). The main purpose of this research tasks is to determine the relationship between corporate governance and FDI. Based on the principles of OECD, we mainly concentrate on the five distinctive factors to estimate the current corporate governance practice of the respective countries.

##### 3.5.1. Shareholders’ Rights

Shareholders’ rights consist of with 7 factors. A) Basic shareholders’ rights must be ensured so that shareholders enjoy- secure ownership registration, ability to convey or transfer shares, ability to obtain relevant information on a timely basis, effective participation and voting in shareholders’ meetings, right to elect the board members, sharing in corporate profits. B) Shareholders can participate in and are informed of basic decisions: amendments in governing documents, new share authorization, extraordinary transactions. C) Shareholders can participate effectively and vote in the GSM (general shareholder meeting) including sufficient and timely information has to be available on the GSM, shareholders can question the board regarding fundamental issues, shareholder’s input in certain key decisions is allowed, voting in absentia is permitted. D) Control structures that are not proportional to share ownership has to be disclosed, E) The control structure of the enterprise has to be transparent and changes based upon the needs
of the shareholders must be allowed, additionally, the regulations regarding change of control
must exits and the shareholders should be made aware of it; the transactions of share must take
place at transparent prices and under fair conditions for all shareholders, anti-takeover devices
are cannot be used to shield management from accountability. F) Ownership rights of all
shareholders have to be facilitated. G) Shareholders must be allowed to consult with each other
on issues concerning their interest.

3.5.2. Minority Shareholders’ Protection and Equitable Treatment of Shareholders

This includes with 3 factors. A) Shareholders within the same class must be treated
equally, that includes- within a class, all shares carry the same rights, investors have the right to
information on their rights before purchase, changes in rights subject to approval of shareholders
of that class, minority shareholders should be protected from abuse by controlling shareholders,
minority shareholders should have recourse to effective redress, beneficial share owners have a
right to instruct custodians or nominees on how to vote, and there should be no impediments to
cross-border voting. Shareholders’ meeting procedures should ensure equitable treatment of all
shareholders, this meeting procedures should not be made unduly difficult to vote. B) Insider
trading and abusive self-dealing are prohibited. C) Members of the board and key executives can
disclose any material interest in any matter or transaction with the company.

3.5.3. Stakeholders in Governance

This includes 4 factors. A) Legal and mutually established rights of stakeholders are
respected. B) Performance-enhancing mechanisms for employee participation are permitted. C)
Stakeholders have a right to access to timely, relevant, and reliable information on governance
issues in which they have a right to participate. D) Stakeholders and, in particular, employees
have the right to whistle blow to the board without the risk of retribution.

3.5.4. Transparency and Disclosure

This includes 9 factors. A) Material information is disclosed on: financial and operating
results, company objectives, major share ownership and voting rights, remuneration policy for
board members and executives, qualifications of board members, selection process of board
members, other board memberships, independence of board members, related-party transactions,
foreseeable risks, issues regarding employees and other stakeholders, governance structures, governance policies and governance codes, process by which governance codes or policies are implemented. B) High-quality standards for financial reporting are used. C) High-quality standards of nonfinancial reporting are used. D) High-quality standards of audit are used. E) An independent external audit is conducted of the financial reports. F) The independent external auditor is qualified and competent. G) The independent external auditor is accountable to shareholders. H) The independent external auditor exercises due professional care. I) the dissemination of relevant information to shareholders is timely, cost-effective, and equitable.

3.5.5. The Board of Directors

This includes 9 factors. A) Board members act on a fully informed basis. B) Board members exercise duties of loyalty and care. C) Board members act in the interest of the company and its shareholders. D) Board members treat all shareholders fairly. E) The board applies high ethical standards. F) The board takes into account the interests of other stakeholders. G) The board fulfils these key functions: Reviews and guides strategy, major plans, risk policy, annual budgets; sets performance objectives and monitors implementation; oversees major expenditures, acquisitions, and divestitures; monitors and improves corporate governance practices; selects and replaces key executives; monitors executive performance; develops incentive compensation plans for executives; ensures formal and transparent board member nomination; monitors and manages potential conflicts of interest; monitors and manages related-party transactions; ensures the integrity of the company’s financial reporting; ensures the integrity and independence of the external audit; ensures the integrity of the company’s systems for internal control, including risk management and compliance. H) Oversees the process of disclosure and communications. I) The board is capable of objective independent judgment, including Independent board members should oversee issues where there is a potential conflict of interest (financial reporting, controls, related-party transactions, nominations, and remuneration); committee mandates, composition, and procedures should be well-defined and disclosed; board members should be committed to their responsibilities; and board members have access to accurate and relevant information to fulfil their roles on a timely basis.
4. Control Variables

4.1 Household Consumption Expenditure

Most studies (Bellak et al. (2008), Cheng and Kwan (2000), Culem (1988), Schneider and Frey (1985)) conform to the mainstream literature that higher wages discourage FDI inflows, some studies found wages to be insignificantly and even positively related to FDI inflows (Owen (1982), Wheeler and Mody (1992)). Due to the lack of consistent data on local wages I have used household consumption expenditure per capita as a proxy for local wages assuming households that spend more, earn higher wages. MNC always have the eagerness to operate their business in countries where the labour cost is relatively cheap and therefore, securing more competitive position by achieving efficiency from that market.

4.2 Literacy Rate

The success of adoption of foreign technology depends on the existing educational infrastructure. Insufficient education and worker qualification could discourage FDI inflows. Bartel and Sicherman (1999) found that there is an education premium associated with technological change and it results from an increase in the demand for the innate ability or other unobservable characteristics of more educated workers. Dutta and Osei-Yeboah (2010) examined the relationship between human capital and FDI level for 76 developing countries over a period of 1980-2003, with pooled panel OLS. As a measure of human capital, literacy rate and enrolment rates in different education levels as a percentage of total population are used along with the FDI/GDP ratio and some other determinants of FDI inflows. According to the results, literacy rate has a positive and significant effect on FDI inflows. As for the other levels of education, increased primary school enrolment rate leads to higher FDI inflows. I have used the literacy rate of the adult population to measure this. Willem Te Velde (2003) gave evidence that MNEs offer workers training in developing countries but that this is more likely scenario where the work force is large and highly educated, as well as, where the MNEs have invested in R&D and are export oriented. MNC always consider making FDI in different developing countries based on the availability of skilled labour forces. There are also adverse opinions of the human skill specially concentrated on education.
4.3 Telephone Mainlines

In a developing country it is an inevitable and pivotal factor for the purpose of accretions of outlook, indubitable sustainable economic development and unremitting flow of foreign direct investment; it is incumbent provision of efficient, reliable and affordable infrastructure service. Fung et al. (2005) examined whether hard infrastructure, in the form of more highways and railroads, or soft infrastructure, in the form of more transparent institutions and deeper reforms, leads to more FDI. Government infrastructure is used to refer to a country’s political, institutional, and legal environment. It captures aspects of legislation, regulation, and legal systems that condition freedom of transacting, security of property rights, and transparency of government and legal processes (Globerman and Shapiro, 2003). OECD (2002) attributes the spectacular failure of African countries to attract FDI to a mixture of unsuitable national economic policies, poor-quality services, closed trade regimes, and problems of political legitimacy (United Nations, 2005). Researchers have well acknowledged the significant contribution of infrastructure along with other determinants to attract FDI inflows. Kok and Ersoy (2009), Sekkat and Veganzones-Varoudakis (2004), Asiedu (2002), Morrisset (2000) and Wheeler and Mody (1992), conducted a research work mainly concentrating on the influences of infrastructure in facilitating FDI. On the bases of their studies they have argued that Multinational Corporations (MNCs) seek such markets where they can achieve cost reduction and benefit maximization, and these objectives are easier to achieve where public goods are in better condition and obliging to investors. Direct investment on the concentration of infrastructure ensures efficient production facilities and stimulates economic activities, alleviate transaction cost and trade costs improving competitiveness and ensure ample employment opportunities for the poor. Here I have used tele-density and utilized the number of mobile and landline telephone subscribers as a proxy for infrastructure.

4.4 Inflation Rate

Positive macroeconomic conditions such as high domestic growth rates, rising per capita GDP, and larger markets indicate a promising domestic market (Biglaiser and DeRouen 2007). From the last two decades it is postulated that there is no strong and rigorous integration to facilitate gigantic amount of FDI with the concentration of macroeconomic stability (Inflation, government budget balance, interest and exchange rate). A positive relationship has been found
between economic growth and FDI (Chakrabarti 2001; Onyeiwu and Shrestha, 2004). Apart from having large domestic markets, economies with a higher growth, typically implement stable and credible macroeconomic policies that attract foreign investors (Onyeiwu and Shrestha, 2004). For the research purpose I have used inflation as a proxy of macroeconomic stability.

Greater inflation volatility is consistent with higher inflation rates and hence, increases uncertainties and discourages long-term investment (Romer, 1990). One of the standard symptoms of the loss of fiscal or monetary control is unbridled inflation; it will discourage savings and dampen private, domestic and foreign investment which is evident from low FDI in many African, Caribbean, Latin American and Pacific countries (Morrissey 2008).

4.5 Gross Domestic Product (GDP)

In a large economy there are ample opportunities for multinational firms to invest on multitudinous economic activities and diversified production. Multinational firms are always searching for strategic expansion and conglomeration that largely depends on the market size. The notion that market size attracts the FDI inflow has been acknowledged by Bander & White (1968), Schmitz & Bier (1972), Wheeler & Mody (1992), Pistoresi (2000). The importance of market size in attracting FDI has been explored by Asiedu (2006), Mlambo (2006) and Zhang (2008). Kok and Ersoy (2009) examined 24 developing countries with panel data and found a positive role of market size on FDI. Bigger market proffers abundant opportunities for exploring factor of production and best uses of the technology that are transferred for optimal uses. In recent years, under the WTO all the member countries adopted trade liberalization policies and reduced tariff and non-tariff barriers, and have also made substantial structural trade reform policies and procedures that have made this argument controversial. In this analysis I have used GDP as proxies for market size.

4.6 Trade Openness

After 90s the developing countries’ governments had the propensity to reduce their trade barriers, which encouraged the foreign firms to establish their business trajectory in many developing countries. Gastanaga, Nugent and Pashamova (1998) addressed the tariff jumping hypothesis in the context of a panel analysis on the effects of host country’s reforms on FDI. While cross-section results suggest that FDI flows were motivated more strongly by tariff
jumping than by potential exports, the effects of import tariffs on FDI tend to be negative in a time-series context. These authors concluded that "over time in individual countries trade liberalization has become the more important for FDI". Chakrabarti (2001) said openness to trade (proxied by exports plus imports to GDP) has the highest likelihood of being correlated (positively) with FDI among all explanatory variables classified as fragile. The effect of trade openness on FDI inflows, proponents for trade openness (Nishimizu and Robinson, 1986; Nishimizu and Page, 1991; Tybout, 1992; Helleiner, 2002) contend that trade openness enhances competition which in turn increases the pressure increased efficiencies, technical change and product improvement reduced costs of production, general economic growth via raising profits which encourage growth of foreign capital investment and inflows of expertise, and enhanced equal access to scarce resources which improves the overall resource allocation and eliminates corruption in the system.

Trade openness facilitates the unremitting economic phenomenon for the developing countries. MNC have the propensity to ensure their competitiveness and accelerating their market size for the purpose of exploiting resources. They get to accumulate the methods that reduce their cost and ensure their efficiency. The indigenous developing countries are also benefitted by accumulating new technological expertise, distinctive knowledge about the technical diffusion, knowledge transfer, capital inflow, positive consequence on Balance-on-payment, employment effect and management prudent. Aizenman and Noy (2006) identified strong two-way positive feedbacks between trade and FDI. They pointed out that a developing country experiencing rapid improvement in its productivity will attract growing inflows of vertical FDI, thereby increasing its international trade. In circumstances where the multinational employs skilled workers in the developing country, the greater volume of trade that comes with the vertical FDI ought to increase the demand for skilled workers, thereby increasing the return on human capital. This in turn will lead to an increase in the supply of skilled workers, potentially increasing future FDI.

The WTO’s elimination of the transient policy imposed trade restrictions are expected to promote the efficient utilization and allocation of both imported and domestic resources, engendering competition that can promote an environment conducive for specialization and economies of scale (Greenaway et al. 2007). In the past three decades, most of the developing countries have gradually adopted more progressive and open policies towards FDI and liberal
trade regimes (Dunning, el 2008) and have consequently, witnessed increased overseas investment, a trend that appears likely to continue (Brooks et al. 2008). Liargovas and Skandalis (2012) also examined the significance of trade openness for attracting FDIs for 36 developing economies across the world for the period 1990-2008. The study found that there exist a positive long run relationship between trade openness and FDI inflows in developing countries. The effect of trade openness on FDI also depends on the host and home countries political relationships, proximity, bilateral and multilateral trade and investment agreements (Sadik and Bolbol, 2001) and some other factors such as foreign exchange rate stability, adequate infrastructure, domestic financial liberalization, good governance and local skills availability.

4.7 Regional Dummies

As a dummy variable, we use Africa, Asia, central and eastern Europe and South America (DUASIA, DULAC and DUAFRICA). The model includes a dummy variable for each region to take this into account where the value of ‘0’ means the country of observation is not in that region and ‘1’ means the country of observation is within that region.

5. Result and Analysis

The table no: 3 belongs that whether the variables are stationary or not. For accomplishing the tasks we using Levin, Lin and Chu-t test, Im, Pesaran and Shin W-stat test, ADF-Fisher Chi- 2 square test and PP-Fisher Chi-square test to the series. According to the table the level of all the series do not include unit root at 1% significance level. It indicates that the time series are stationary.

We need to explain the selection criterion of the lag and the VAR model construction. Regarding the construction of the model, we used the series on level, even if the VAR methodology suggests that all variables should be stationary. The argument is as follows: "The traditional approach of VAR enthusiasts is to work on level, even if some of the series are non-stationary. As for lag selection, we considered the "VAR Lag Order Selection Criteria" test, which in Table 4 illustrates that for five theoretical lags, all the five criteria (LR,FPE, AIC, SC and HQ) recommend a lag equal to 5 for the VAR model" FDI- CGOV.

For doing the research the major problem was multicollinearity. The lack of data had the implications for the specification of the model and units to be included in the sample as
certain possibly relevant explanatory variables and countries had to be dropped due to the lack of sufficient data. From the table: 5 we see that several of the variables including the test variable were quite closely correlated with one another.

Table 3: The Result of Panel Unit Root Test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Levin Lin and Chu-t test Values** and Prob</th>
<th>Im, Pesaran and Shin W-stat test Values** and Prob</th>
<th>ADF-Fisher Chi-square Test Values** and Prob</th>
<th>PP-Fisher Chi-square Test Values** and Prob</th>
<th>Test For Unit Root in</th>
<th>Include in Test equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGOV</td>
<td>17.045</td>
<td>23.425</td>
<td>139.673</td>
<td>284.675</td>
<td>Level</td>
<td>Individual trend and intercept</td>
</tr>
<tr>
<td>HEXP</td>
<td>-5.4625</td>
<td>-4.3211</td>
<td>-251.282</td>
<td>-324.08</td>
<td>Level</td>
<td>Individual trend and intercept</td>
</tr>
<tr>
<td>LIT</td>
<td>-9.435</td>
<td>-13.289</td>
<td>125.663</td>
<td>283.01</td>
<td>Level</td>
<td>Individual trend and intercept</td>
</tr>
<tr>
<td>TELE</td>
<td>6.893</td>
<td>5.321</td>
<td>210.091</td>
<td>135.19</td>
<td>Level</td>
<td>Individual trend and intercept</td>
</tr>
<tr>
<td>INF</td>
<td>-11.672</td>
<td>-15.28</td>
<td>-346.291</td>
<td>-422.64</td>
<td>Level</td>
<td>Individual trend and intercept</td>
</tr>
<tr>
<td>GDP</td>
<td>-7.243</td>
<td>-6.342</td>
<td>165.209</td>
<td>210.52</td>
<td>Level</td>
<td>Individual trend and intercept</td>
</tr>
<tr>
<td>TRADE</td>
<td>6.266</td>
<td>9.021</td>
<td>175.231</td>
<td>288.79</td>
<td>Level</td>
<td>Individual trend and intercept</td>
</tr>
</tbody>
</table>

Source: Estimated

Table 4: VAR Lag Order Selection Criteria

<table>
<thead>
<tr>
<th>Lag</th>
<th>LogL</th>
<th>LR</th>
<th>FPE</th>
<th>AIC</th>
<th>SC</th>
<th>HQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-21.623</td>
<td>13.29</td>
<td>0.000811</td>
<td>1.623123</td>
<td>1.583422</td>
<td>1.723061</td>
</tr>
<tr>
<td>1</td>
<td>-24.2199</td>
<td>48.667</td>
<td>0.001079</td>
<td>2.018371</td>
<td>2.856231</td>
<td>2.961002</td>
</tr>
<tr>
<td>2</td>
<td>74.19023</td>
<td>298.1219*</td>
<td>3.241518</td>
<td>2.342091</td>
<td>2.768231</td>
<td>2.815562</td>
</tr>
<tr>
<td>3</td>
<td>89.21021</td>
<td>59.23152</td>
<td>2.987121</td>
<td>4.832415</td>
<td>2.932009</td>
<td>2.886364</td>
</tr>
<tr>
<td>4</td>
<td>65.23451</td>
<td>45.21312</td>
<td>2.712441</td>
<td>4.018231</td>
<td>3.262051</td>
<td>-2.72001</td>
</tr>
<tr>
<td>5</td>
<td>123.3425</td>
<td>19.96231</td>
<td>2.987612</td>
<td>3.987621</td>
<td>-4.29412</td>
<td>-2.51224</td>
</tr>
</tbody>
</table>

Source: Estimated
Note that: * indicates the order of the selected lag according to the criterion
LR: sequential modified LR test statistic (each test at 5% level)
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

We need to explain the selection criterion of the lag and the VAR model construction.
Regarding the construction of the model, we used the series on level, even if the VAR methodology suggests that all variables should be stationary. The argument is as follows: "The traditional approach of VAR enthusiasts is to work on level, even if some of the series are non-stationary. As for lag selection, we considered the "VAR Lag Order Selection Criteria" test, which in Table 4 illustrates that for five theoretical lags, all the five criteria (LR,FPE, AIC, SC and HQ) recommend a lag equal to 5 for the VAR model" FDI- CGOV.

For doing the research the major problem was multicollinearity. The lack of data had the implications for the specification of the model and units to be included in the sample as certain possibly relevant explanatory variables and countries had to be dropped due to the lack of sufficient data. From the table: 5 we see that several of the variables including the test variable were quite closely correlated with one another.

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>LFDI</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>LMGOV</td>
<td>72</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LHCEXP</td>
<td>-43</td>
<td>-9</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LLIT</td>
<td>13</td>
<td>14</td>
<td>32</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LTELE</td>
<td>11</td>
<td>19</td>
<td>17</td>
<td>13</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LINF</td>
<td>-13</td>
<td>-7</td>
<td>-23</td>
<td>-11</td>
<td>-18</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LGDP</td>
<td>72</td>
<td>69</td>
<td>10</td>
<td>29</td>
<td>23</td>
<td>8</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LTRADE</td>
<td>69</td>
<td>18</td>
<td>67</td>
<td>15</td>
<td>32</td>
<td>42</td>
<td>23</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DUASIA</td>
<td>56</td>
<td>26</td>
<td>58</td>
<td>22</td>
<td>18</td>
<td>-11</td>
<td>17</td>
<td>57</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DULAC</td>
<td>61</td>
<td>22</td>
<td>72</td>
<td>35</td>
<td>20</td>
<td>47</td>
<td>17</td>
<td>67</td>
<td>61</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DUAFRICA</td>
<td>58</td>
<td>26</td>
<td>79</td>
<td>23</td>
<td>31</td>
<td>32</td>
<td>11</td>
<td>56</td>
<td>54</td>
<td>74</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

From the table no: 6, the respective GLS regression shows that on average one percent increase in CGOV per capita will increase foreign direct investment net inflows as percent of
GDP 3.44 percent. Similarly on average one percent increase in trade openness by minimizing tariffs and non-tariffs barriers will increase foreign direct investment net inflows as percent of GDP by 2.31 percent. On the other hand on average of one percent increase in literacy will increase the foreign direct investment net inflow as percent of GDP by 1.37 percent. In the GLS regression shows that on average one percent reduction in inflation will increase foreign direct investment net inflows as percent of GDP 2.72 percent. On average one percent increase in tele-infrastructure will increase foreign direct investment net inflows as percent of GDP 1.24 percent. On average one percent increase in GDP that leads to increase the foreign direct investment net inflow as percent of GDP by 1.827 percent. On average of one percent reduction in household consumption Expenditure per capital that will increase the investment net inflow as percent of GDP by 2.31 percent.

Table 6: Ordinary Least Square (OLS) and Generalized Least Square (GLS)

<table>
<thead>
<tr>
<th>Dependent variables (FDI)</th>
<th>OLS</th>
<th>GLS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td>CGOV</td>
<td>0.2241(0.2331)</td>
<td>0.4541(0.2457)</td>
</tr>
<tr>
<td>HCEXP</td>
<td>-0.4541(0.0041)</td>
<td>-0.3541(0.0041)</td>
</tr>
<tr>
<td>LIT</td>
<td>0.2019(0.0321)</td>
<td>0.2319(0.0321)</td>
</tr>
<tr>
<td>TELE</td>
<td>0.1320(0.0152)</td>
<td>0.1320(0.0152)</td>
</tr>
<tr>
<td>INF</td>
<td>-0.1991(0.0215)</td>
<td>-0.1791(0.0215)</td>
</tr>
<tr>
<td>GDP</td>
<td>0.1667(0.0237)</td>
<td>0.1667(0.0237)</td>
</tr>
<tr>
<td>TRADE</td>
<td>0.1777(0.0105)</td>
<td>0.1777(0.0105)</td>
</tr>
<tr>
<td>DUASIA</td>
<td>0.1642(0.0155)</td>
<td>0.1842(0.0155)</td>
</tr>
<tr>
<td>DULAC</td>
<td>0.0111(0.0129)</td>
<td>0.0111(0.0129)</td>
</tr>
<tr>
<td>DUAfrica</td>
<td>0.0089(0.0014)</td>
<td>0.0089(0.0014)</td>
</tr>
<tr>
<td>Time Fixed Effect</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Robust Standard Error</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Clustered Standard Error</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Observation</td>
<td>768</td>
<td>768</td>
</tr>
<tr>
<td>R²</td>
<td>0.8123</td>
<td>0.8123</td>
</tr>
</tbody>
</table>

From the table no: 7, according to the empirical evidence based on the three panel estimation methods, reveals that the variable Corporate Governance (CGOV) is statistically
significant at 1% by using REM, FGLS and PCSE estimation methods. This relevant exploration illustrates that increasing the practice of corporate governance of course boost the confidence of the foreign investors and therefore, enterprising the economic growth of the country. For instance, the evidence from the REM implies that by keeping other factors constant, if a country is able to increase the level of corporate governance by 1%, the inward FDI into the economy may increase by 7.62 percentage points. The empirical results derived from using FGLS and PCSE estimation methods also verified that keeping other factors constant, a 1% increase in the practice of corporate governance may increase the FDI inflow by 8.55 and 9.25 percentage points, respectively.

Proper institutional support and practice of corporate governance can be attained by enhancing good governance and ensuring better economic institutions, including strengthening the effectiveness and predictability of the judiciary, enforceable contracts, and the rule of law, eliminating the root causes of corruption and rent seeking, and developing an environment where fair and predictable rules form the basis for social and economic interactions.

The three panel estimation methods reveal that the variable of HC is statistically significant at 1% by using REM, FGLS and PCSE estimation methods. The evidence from the REM implies that by keeping other factors constant, if a country is able to reduce the household consumption (HC) by 1%, the inward FDI into the economy may increase by 11.29 percentage points.

The empirical results derived from using FGLS and PCSE estimation methods also verified that keeping other factors constant, a 1% increase of Household consumption (HC) may increase the FDI inflow by 12.66 and 14.82 percentage points, respectively. In the entire panel estimation model the variable LIT is 5% statistically significant. Keeping other factor constant, the evidence from the REM, FGLS and PCSE panel estimation model I found that 1% increase in LIT, the FDI is increased 9.25, 10.23 and 12.47 percent respectively. By using REM, FGLS and PCSE estimation methods, 1% increase of Tele-density, FDI increased 7.23, 8.29 and 8.66 percent respectively. Here the other factors are remaining constant and also in every panel estimation model this variable is 5% statistically significant. Kok and Ersoy (2009), Sekkat and Veganzones-Varoudakis (2004), Asiedu (2002), Morrisset (2000) and Wheeler and Mody (1992), conducted a research work mainly concerned with the influences of infrastructure on facilitating FDI. On the basis of their studies they have argued that Multinational Corporations
(MNCs) seek such markets where they can achieve cost reduction and maximization of benefits; and these objectives become easier to achieve where public goods are in better condition and supportive to investors.

The three panel estimation methods reveal that the variable of INF is statistically significant at 5% by using REM, FGLS and PCSE estimation methods. Using REM, FGLS and PCSE estimation methods, 1% reduction of INF, FDI is increased 6.29, 6.68 and 7.21 percent respectively. So from the evidence it is demonstrated that greater inflation volatility is consistent with higher inflation rates and hence, increases uncertainties and discourages long-term investment.

The empirical results derived from using REM, FGLS and PCSE estimation methods explain that 1% of GDP, FDI will increase 6.49, 6.92 and 7.03 percent. Trade openness is observed to be positively and significantly associated to FDI inflows in studies such as Harms and Ursprung (2002) and Jensen (2003). From the evidence I observe that 1% increase of openness; FDI will increase 5.32, 5.60 and 5.92 percent from using REM, FGLS and PCSE estimation methods. Reduction of inflation by 1%, FDI increases by 6.85, 7.32 and 9.82 percent respectively by using the three different panel estimation model REM, FGLS and PCSE respectively. Dummy variables (DUASIA, DULAC and DUAFRICA) are also found at 10% percent significant level by using the three different estimation model, REM, FGLS and PCSE.

Table 7: Random effect model (REM), Feasible General least Squares method (FGLS) FGLS and Panels Corrected Standard Errors (PCSE)

<table>
<thead>
<tr>
<th></th>
<th>REM</th>
<th>FGLS</th>
<th>PCSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGOV</td>
<td>0.0762***</td>
<td>0.0855***</td>
<td>0.0925***</td>
</tr>
<tr>
<td></td>
<td>(0.0221)</td>
<td>(0.0234)</td>
<td>(0.0211)</td>
</tr>
<tr>
<td>HCEXP</td>
<td>-0.1129***</td>
<td>-0.1266***</td>
<td>-0.1482***</td>
</tr>
<tr>
<td></td>
<td>(0.0241)</td>
<td>(0.0292)</td>
<td>(0.0361)</td>
</tr>
<tr>
<td>LIT</td>
<td>0.0925**</td>
<td>0.1023**</td>
<td>0.1247**</td>
</tr>
<tr>
<td></td>
<td>(0.0233)</td>
<td>(0.0256)</td>
<td>(0.0295)</td>
</tr>
<tr>
<td>TELE</td>
<td>0.0723**</td>
<td>0.0829**</td>
<td>0.0866**</td>
</tr>
<tr>
<td></td>
<td>(0.284)</td>
<td>(0.246)</td>
<td>(0.282)</td>
</tr>
<tr>
<td>INF</td>
<td>-0.0629**</td>
<td>-0.0668**</td>
<td>-0.0721**</td>
</tr>
<tr>
<td></td>
<td>(0.243)</td>
<td>(0.262)</td>
<td>(0.289)</td>
</tr>
<tr>
<td>GDP</td>
<td>0.0649***</td>
<td>0.0692***</td>
<td>0.0703***</td>
</tr>
<tr>
<td></td>
<td>(0.217)</td>
<td>(0.252)</td>
<td>(0.283)</td>
</tr>
<tr>
<td>TRADE</td>
<td>0.0532**</td>
<td>0.0560**</td>
<td>0.0592**</td>
</tr>
<tr>
<td></td>
<td>(0.203)</td>
<td>(0.214)</td>
<td>(0.229)</td>
</tr>
<tr>
<td>DUASIA</td>
<td>-0.0436*</td>
<td>-0.0467*</td>
<td>-0.0486*</td>
</tr>
</tbody>
</table>
From the table no: 8, we have seen that the coefficient of CGOV variable is positive and significant as we expected. The size of the FDI largely relies on the market size of the host country, so it is expected that there is an association between the market size and FDI. Gross domestic product per capita (GDP) is also positive and statistically significant because foreign direct investment is responsive to gross domestic product per capita in the host developing country. The other coefficient of trade openness as percentage of GDP is also strongly positive and statistically significant because by lowering the trade barriers the FDI from the different countries are induced. Openness is observed to be positively and significantly associated to FDI inflows. On the other hand the coefficient of macroeconomic stability such as inflation is being treated as a proxy for macroeconomic stability. From the table we have seen that the coefficient for inflation is statistically negative that indicates an increase in consumer prices causes a decrease in inward FDI. So that from the result we can pronounce that high inflation escort to low FDI and low inflation spawn high FDI. In the LIT variable we observe that skill labour forces help to attract foreign investors because it is the pivotal element for implementation of innovative production technologies and for the adaptation of a corporate business culture. Human capital investment was a statistically significant determinant of FDI inflows; it is one of the most important determinants of FDI inflow and that over time human capital would assume an even greater impact on FDI. The other coefficient of HCEXP, we also found proved to be statistically negative. The coefficient for tele-density used as a proxy for infrastructure is also find out to be positive and statistically significant at 1% significance level because availability of better communication infrastructure that lead investors to choose a particular location.

Source: Estimated

(Significance at the 1% (***) , 5% (**), and 10% (*) levels)
Table 8: Tobit Model of countries for years 1997-2013

(Significance at the 1% (***) , 5% (**) , and 10% (*) levels)

6. Conclusion

The main finding of this work is that there is a relationship between corporate
governance and FDI which is statistically significant. The result suggests that protecting the shareholders’ rights, protecting the rights of the minority shareholder and equitable treatment of shareholders, effective governance, transparency and accountability and efficient board of directors ensure the unremitting flow of investment. These findings have implications for individual governments of the world and international donor organizations to undertake tenable actions to improve overall governance of countries. The other variables incorporated with household consumption, literacy rate, GDP, Tele-density and trade openness were found statically significant as predictable. So the government for each and every country needs to concentrate on ensuring conducive and commensurate business environment with proper institutional arrangement for easy inflow of FDI from manifold sources.

References


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