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**TOPIC:**

**Determinants of FDI: Evidence from Developed & Developing Countries**

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By  
Tarek Lotfy Ibrahim

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Dr. Islam Azzam  
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## **ABSTRACT**

This study investigates the generic determinants of foreign direct investment (FDI) assessed using data for 65 countries over the period between 1991 and 2017 by employing a panel data model. The goal of this study is to provide a more holistic view that highlights the variables that are significant in determining FDI regardless of the widely varying economic and institutional platforms across countries, regions and continents. The countries selected vary widely across trade facilitating infrastructure, technology platform, investor perception/ investment profile and economic environment. This study also applies control variables GDP, GDP per Capita, population, and inflation to avoid omitted variable bias.

Results show that the generic variables that drive FDI are Exports as percentage of GDP, Imports as a percentage of GDP, Gross Fixed Capital Formation as a percentage of GDP, General Government Final Expenditure as a percentage of GDP, Cellular Subscription as a portion of population and International Country Risk Guide Investment Profile. On the other hand natural resource rents, tax revenue as a % of GDP, and GDP growth do not result to be significant in FDI for this wide-ranging dataset.

### **Research Contribution:**

This study contributes to the topic in that:

- It criticises Ease of Doing Business Indicators due to methodological inconsistencies and mechanical changes of index computation and replaces these variables with International Country Risk Guide Indices that measure institutional quality in addition to Freedom House Civil Liberties and Political Rights.
- Unlike most recent literature, seeks to determine a large categorically diverse group of variables over a large set of characteristically diverse countries, in determining the variability of FDI.

In addition, although there is abundant research of this topic, new research and new assessment techniques continue to surface on the topic due to FDI importance and potential in shifting the fortunes of global economies and standards of living.

The limitation of this study is that policy makers may need to complement this research with existing abundant FDI determinants research, narrower in scope and detail oriented in terms of dimension; i.e. countries, regions, and variables. Accordingly, governments may have a more comprehensive view based on recent research in determining FDI seeking based policy.

<b>OUTLINE</b>		
<b>I.</b>	<b>Introduction</b>	<b>3</b>
<b>II.</b>	<b>Literature Review</b>	<b>5</b>
	(i) <i>Political and Institutional Quality Variables</i>	<b>5</b>
	(ii) <i>Economic and Policy Variables</i>	<b>6</b>
	(iii) <i>Human Capital Variables</i>	<b>9</b>
	(iv) <i>Endowment Variables</i>	<b>11</b>
<b>III.</b>	<b>Methodology</b>	<b>12</b>
	(i) <i>Approach</i>	<b>12</b>
	(ii) <i>Data</i>	<b>13</b>
	(iii) <i>Selected Variables</i>	<b>13</b>
	(iv) <i>Descriptive Statistics</i>	<b>14</b>
	(v) <i>Selected Estimation Mechanics</i>	<b>15</b>
	(vi) <i>Selected Model Iterations</i>	<b>16</b>
<b>IV.</b>	<b>Empirical Results and Discussion</b>	<b>17</b>
	(i) <i>Selected Model</i>	<b>17</b>
	(ii) <i>Regression Results Table</i>	<b>23</b>
<b>V.</b>	<b>Conclusion</b>	<b>24</b>
	(i) <i>Policy Implication</i>	<b>24</b>
	(ii) <i>Limitation</i>	<b>25</b>
<b>VI.</b>	<b>References</b>	<b>26</b>
<b>VII.</b>	<b>Annex</b>	<b>30</b>
	(i) <i>Correlation Matrix</i>	<b>30</b>
	(ii) <i>Variables Definitions</i>	<b>31</b>
	(iii) <i>List of Countries - Data</i>	<b>35</b>

## I. INTRODUCTION

Abundant literature has hypothesized that FDI is directly correlated with a country's economic growth, it plays an important role in acquiring capital for investment, improving human capital and transferring technology between different economies however FDI is still subject to major discussion for both economists and policy makers. (*Asiedu, 2002; Akinlo, 2004; Anyanwu and Yameogo, 2015, Barua, Naym and Nessa 2017*).

Previous research has shown diverse and inconsistent results for the determinants of FDI especially with the following significantly relevant variables: GDP growth, trade openness, institutional and economic measurement indices, taxation, among others. Quantitative analysis along with economic theory have led to the following research results on the topic:

- **That a strong investment climate**, illustrated through differing variables is key for countries to attract foreign direct investment (*Okafor, Piesse and Webster (2017) and Chanegriha, Stewart and Christopher Tsoukis (2015)*).
- **That country institutional quality** is a key FDI determinant across all literature; the presence of well-structured institutions promotes a multitude of legal and investment rights and accordingly lead to better economic prospects, in turn attracting foreign investment. (*Chanegriha, Stewart and Tsoukis study (2016), Grosse and Trevino (2005), Tun et al. (2012), Mina (2012) and Aziz (2018)*). (please see end of section note on selected variable)
- **That trade** is a catalyst for economic growth and FDI; open economies grow faster hence trade openness is a key determinant to FDI. (*Chakrabarti 2001; Moosa and Cardak (2006), Kinuthia, Kinyanjui and Mansoob (2017), Okafor, Piesse Webster (2017)*).
- Mixed results on whether **tax incentives** constitute an important part of the corporate tax policy targeted at attracting FDI for developing nations such as Africa. (*Kleem and Parys (2011), Jorgenson (1963), Devereux et al. (2008) and Altshuler & Goodspeed (2002)*).
- **That human capital** is a key determinant for FDI inflows on the theoretical premise that low skills and an inadequate level of training adversely affect the rate of return of FDI and therefore deter foreign investment (*Lukas (1990) and Easterlin (1981), Hakro & Omezzine (2011), Scholes & Wolfson (1990) and Desai et al. (2004)*).

As such, a more recent assessment of the significant generic determinants of FDI that are unbiased to the disparity in characteristics for different economies and economic platforms, would add value from a holistic perspective, to complement the abundant research available with a narrow scope on selected variables, countries and regions. In this context, we believe this research adds value through contributing to a broader scoped analysis and assessment of the generic FDI determinants.

In summary, this study re-examines the generic significant determinants conducive to FDI, regardless of the economic characteristics and geographic locations. An assessment spanning 1991 to 2017 is implemented due to the limitation in data before the 1990's and the relative significant shifts in economic frameworks over time which may render older data disruptive rather than value adding. Data for 65 countries was analyzed to remain true to the spirit of this research in attempting to pinpoint the generic major determinants of FDI.

This research analyzes **30 variables and 65 countries (list of selected countries in Annex)**, with countries selected in descending order based on FDI as a percentage of GDP. This will be assessed using panel data estimation with fixed effects for both cross-section and period. FDI inflows as a percentage of GDP was selected as the dependent variable to better gauge the contribution of FDI to respective economies as FDI in US dollar terms ignores the relative contribution of FDI to Market size.

*(NOTE: World Bank Ease of Doing Business Indicators have been widely criticized by researchers, which has driven the free data to be less abundantly used in research papers. The main factual criticism is based on the numerous and frequent methodological changes that the World Bank has implemented in computing Ease of Doing Business Indicators. These frequent changes have made the data less valuable to researchers who wish to assess the index score effect son other variables over long time periods, since a 10 to 15-year score analysis will be mechanically void form a comparative basis (Doing business.org)).*

*As such, ICRG was used due to its methodology in utilizing experts to systematically assess country ratings via a predetermined set of questions and data, to determine index scores for all political and institutional variables associated with investment. Unlike Ease of Doing Business indices where data is limited with large country samples and longer time periods, ICRG provides comprehensive data for long periods of time, for 140 global markets. ICRG is also the only political risk methodology and data series to be accepted by the courts in commercial disputes involving the valuation of political risk (prsgroup)*

## II. LITERATURE REVIEW

The 20<sup>th</sup> century last few decades saw a rise in the foreign direct investment inflows which led consequently to an increase in economic literature trying to determine the drivers of FDI. Defining FDI is crucial in the context of this study; FDI net inflows, as a percentage of GDP measure the value of inward direct investment made by non-resident investors in an economy (*World Bank, 2018*). The most widely used framework is the Organization, Location and Internalization Paradigm (OLI) paradigm, Paradigm, pioneered by John Dunning<sup>1</sup> in 1980. According to his theory, a company needs all three advantages to be able to successfully engage in FDI. Hence, the most basic question to be asked is why should a firm (MNCs) choose to fully operate and engage a in a foreign market, rather than finding an alternative option such as exporting or licensing agreements.

In light of the above, four group of variables have been identified throughout this study:

- i. **Political and Institutional Quality Variables:** International Country Risk Guide Government, Socio-Economic Conditions, Investment Profile, Internal Conflict, Corruption, Military in Politics, Religious Tensions, Law and Order, Ethnic Tensions, Bureaucracy Quality, Democratic Accountability, Freedom House Index Political Rights and Freedom House Index Civil Liberties;
- ii. **Macroeconomic Economic Variables:** access to electricity (% of population), Exports of goods and services (% of GDP), Exports of goods and services (BoP, current US\$), Imports of goods and services (% of GDP), Gross fixed capital formation (% of GDP), GDP (current US\$), GDP growth (annual %), GDP per capita (current US\$), Tax revenue (% of GDP), Inflation, consumer prices (annual %), Current account GDP, Manufacturing VA % of GDP, Government final CE % GDP;
- iii. **Human Capital Variables:** labor force, population, mobile cellular subscriptions (per 100 people);
- iv. **Endowment Variables:** total natural resources rents and surface area;

### (i) *Political and Institutional Quality Variables*

The quality of institutions is most likely to be one of the most important FDI determinant across all literature. Well-functioning markets are associated with good institutional quality; poor quality increases the cost of doing business thus it constitutes a threat to investment. Having a holistic environment that promotes property rights, rule of law, government stability, lack of internal and external conflict and corruption control make a country more attract to foreign investment and lead to better economic outlook. Remarkably, *Grosse and Trevino (2005), Tun et al. (2012), Mina (2012) and Aziz (2018)* research papers' argue that the stability of a government is directly correlated with a country's economic growth hence

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<sup>1</sup> John Dunning is a pioneer in international business theory, he put forward "eclectic paradigm – OLI framework" to study FDI and multinational companies' behavior when engaging in international business.

attract higher FDI. Secondly, poor institutions which accept corruption create an additional costs similarly to taxes thus decreases profitability and make the business environment difficult to operate in (Al-Sadig 2002). Thirdly, high involvement of military in politics is an indication that the government can't operate independently making the overall environment is not conducive to foreign direct investment.

These findings are consistent with Chanegriha, Stewart and Tsoukis (2016) study which showcases that nations with greater democratic accountability have higher FDI. Shahzad et al. (2012) argues that political stability enhances the probability of attracting more FDI inflows into the developing countries. Equally, Aziz (2018) research indicates that in the Arab World institutional quality variables of Doing Business, economic freedom and International Country Risk (ICRG) have a positive and significant impact on FDI inflows. Whereas Masron and Nor (2013) found that variables like regulatory quality control, rule of law and corruption are bound to have a an important role in attracting FDI inflows in the Association of Southeast Asian Nations (ASEAN). Tintin (2013) test the determinants of FDI inflows in Central and Eastern European (CEE) and his results show that economic freedoms, state fragility and political rights, have the most significant impact. Conversely, Paul et al. (2014) studying the same region found the accuracy and efficiency of public administration is the most appropriate framework in attracting FDI and can never be substituted by market forces. Overall, a high political risk calculated through the International Country Risk Guide (ICRG) and Freedom House make investors feel uncertain and decreases the chances of investment.

## **(ii) Macro-Economic Variables**

This set of variables highlights the economic investment climate which influences how investors assess returns and risks associated with taxes, market size, and government balance of payment, exports and imports as well as inflation.

One of the most important economic indicators is GDP growth, it is significant with a country's total production and consumption of a variety of goods and services. The GDP growth rate is an influencing factor for those who wish to invest in a foreign country. Gross and Trevino (1996) highlighted that countries possessing a higher GDP growth rate are expected to promote a large dose of FDI, encourage potential multinational companies (MNCs) to invest without a debt and more specifically when growth is consistent and stable. Nevertheless, some economists find GDP to be inversely significant to FDI, such

as Buchanan *et al.* (2012<sup>2</sup>), Jensen (2003<sup>3</sup>), and Wint and Williams (2002<sup>4</sup>). FDI could be attracted to economies where going through period of recessions where capital and labor costs are less costly or when firms could profit from underutilized resources such as an abundant supply of cheap labor in low growth economies. Equally, market size and growth rate could not serve as key-determinants for FDI where MNCs will choose an economy for the cost of resources (transportation, labor, energy, capital) regardless of the economy growth (Zhang (2001<sup>5</sup>) and Akinlo, 2004<sup>6</sup>).

It is entirely possible that market size and market growth might not be important considerations for export-oriented and extractive motives for FDI. Torrissi (1985) and Zhang (2001b) argue that export-oriented FDI is motivated by factor-price differentials, such as labor cost, and transportation cost from host countries to other countries in the region. For example, in Africa, extractive FDI is located in several mineral-rich countries, where market size and growth rate are not the key motivation for FDI (Akinlo, 2004). Consequently, in such cases, economic growth and FDI will be unrelated.

Equally, in developed nations such as the US and UK, Papanastassiou and Pearce (1990), Culem (1988) and Sader (1993) found a strong correlation between the market-size of the host country and FDI. Whereas, Asiedu (2002) there is no significant impact of growth or market size on FDI inflows in Africa and developing nations.

Adding to the above, in developing and emerging economies, higher government expenditure is associated with development expenditures, namely infrastructure development, this creates a better business environment and stronger institutions attracting more FDI inflows (Panigrahi and Panda, 2012; Noorbakhsh *et al.* 2001; He and Sun, 2014). This was also showcased for Malaysia, Indonesia, Singapore, Thailand and Philippines as well India and China in a panel data study spanning from 1982 until 2016, in which Othman, Yusop, Andaman and Ismail (2018) demonstrated that government spending contributes positively towards FDI inflows in the long run. However, non-productive public expenditures does not enhance economic growth this does not attract FDI. The case is demonstrated in the OECD's countries in Bleaney *et al* (2001) and developed countries in Mitchell (2005) who both argued that large and growing government is not conducive for better economic performance.

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<sup>2</sup> Buchanan, B. G., Le, Q. V., & Rishi, M. (2012). Foreign direct investment and institutional quality: Some empirical evidence. *International Review of Financial Analysis*, 21: 81- 89.

<sup>3</sup> Jensen, N. M. (2003). Democratic governance and multinational corporations: Political regimes and inflows of foreign direct investment. *International Organization*, 57(3): 587-616.

<sup>4</sup> Wint, A. G., & Williams, D. A. (2002). Attracting FDI to developing countries: A changing role for government? *International Journal of Public Sector Management*, 15(5): 361- 374.

<sup>5</sup> Zhang, K. H. (2001a). Does foreign direct investment promote economic growth? Evidence from East Asia and Latin America. *Contemporary Economic Policy*, 19(2): 175-185

<sup>6</sup> Akinlo, A. E. (2004). Foreign direct investment and growth in Nigeria: An empirical investigation. *Journal of Policy Modeling*, 26: 627-639.



According to the studied literature, Trade Openness is the most robust as shown in several studies. *Chanegriha, Stewart and Tsoukis's (2016)* presents two separate extreme bound analysis to determine economic, geographical and institutional variables and their results shows that trade openness is significant in 26 out of the 27 cases., similarly to the results of *Chakrabarti (2001)*, *Moosa and Cardak (2006)*, *Kinuthia, Kinyanjui and Mansoob (2017)*, *Okafor, Piesse Webster (2017)*.

Starting 1990s, a big number of countries have embarked on a series of market reforms; as part of the structural adjustment program import-substitution has been replaced by export-led growth and removed trade barriers.

Many economists argue that there is a relationship between exports rate and FDI inflows; a country's export led growth should theoretically lead to an improvement in the balance of payments and a stabilizing factor for the exchange rate. This was significant in the results of *Navaretti, Venables, & Barry (2004)* and *Markusen & Maskus (2002)*. Exports of goods and services source foreign dominated currency which contributes to the increase of reserves and economic productivity; this helps raise per capita incomes, increase capital investment. This accelerator effect generates more FDI inflows.

Equally, a country's level of imports, *Aizenman and Noy (2005)* have outlined a significant relationship between imports and FDI inflows as well as *Geweke's (1982)*. Nevertheless, *Evguenia et al., (2003)*, *Lawrence and Weinstein (1999)*, *Edwards (1998)* and *Sachs and Warner (1995)* discusses the conditions in which imports may lead to significant FDI inflows where MNCs will have to import specific supplies and materials to maintain their required standards or when rise in imports justifies investment and production. Otherwise, in some cases, the rising capital inflows as well as the rising level of imports outweighed by an increasing level of exports, may appreciate domestic currency and worsen the economy's current account balance. (*Kim and Kim, 2006 and Abell, 1990.*)

According to *Plossner & Levine and Renelt (1992)* gross capital formation directly influences economic growth in two ways: increasing the physical capital stock or by promoting technology indirectly which leads a country to be more attractive to FDI inflows. *The aforementioned is consistent with A. Amighini, McMillan and Sanfilippo's (2017)* findings where gross fixed capitation formation to GDP was positive if only MNCs participate in manufacturing production.

The inflation is among the most debated variables in influencing FDI inflows. In theory, high inflation is significantly associated with internal economic instability. Nevertheless, *Zaman et al. (2006)* found that inflation rate has a positive significant impact on FDI inflows in Pakistan, correspondingly, to the impact of inflation was negative and significant in the Sub-Saharan Africa and MENA region as put forward

*Okafor, Piessie and Webster*. Whereas, *Cleeve, Debrah, Yaw and Zelealem* (2015) who found that inflation that was found highly insignificant in all cases for Africa.

Introducing a new dimension in the infrastructure literature, argues that 1% rise in electricity availability, as a variable for infrastructure, increases FDI by as high as 7.70%.

Finally, taxes will be discussed as the last component of economic climate. Growing literature analyzes both risks and benefits of using tax incentives despite the overall skepticism especially in developing countries. One of the most common hypotheses discussed abundantly in research is that higher taxes discourages FDI inflows. However, the effects of taxes on FDI can vary significantly according to the type and how the FDI activity is measured.

The neo-classical investment theory argues that a firm accumulates capital as long as the benefits exceed the costs. Hence, if tax reductions decrease the user cost of capital, investment goes up (*Jorgenson 1963*). This gave rise to the calculation of marginal effective tax rates which allow to calculate the impact of tax on costs by studying the following parameters: statutory tax rate, investment allowances, tax credits. According to *Hartman* (1984 – 1985), some types of FDI are not sensitive to taxes; the relationship between investment and tax incentives in developing countries depends on the definition of investment, on the type of tax incentives and on the region. *Klemm and S. Van Parys* (2012) argues that strategic interaction over taxes is not restricted to tax rates, but is equally present on tax incentives, notably tax holidays. Moreover, their work also showed that lowering tax rate or attracting tax holidays help attract FDI in the countries of Latin American but not in Africa. This was also shown in *S. Van Parys and S. James* (2010) who found that tax holidays in the *Communauté Financière Africaine (CFA)* Franc zone in Sub Saharan Africa over the period 1994–2006. Moreover, their study also shows that reducing the complexity of tax incentives and improving the legal guarantees for foreign investors has a positive impact on investment, especially in developing countries.

### **(iii) Human Capital Variables**

Few studies focus on human capital as a key determinant for FDI inflows, rather, they incorporate as one of their control variables in their analysis. The term “human capital” was devised by T.W. Schultz and G.S. Becker, defined as “a set of characteristics, natural talents, predispositions, attitudes, respected values, acquired abilities and knowledge of people, which may be enriched through investment<sup>7</sup>.” *Lukas* (1990) and *Easterlin* (1981) argue that low skills and inadequate level of training adversely affect the rate of

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<sup>7</sup>M. Niklewicz-Pijaczyńska, M. Wachowska, *Wiedza – Kapitał ludzki – Innowacje*, University of Wrocław, Wrocław 2012, pp. 45

return of FDI, and thus negatively impact capital inflows. In a more recent study, *Cleeve, Debrah, Yaw and Zelealem (2015)* investigates the relationship between FDI and Human Capital (HK), in the form of education: no school, literacy, gross secondary school enrollment ratio, tertiary enrollment ratio, and average years of schooling. Their study found that irrespective of the indicator of educational attainment used and composition of control variables considered, the FDI effect of human capital was found to be robustly positive and significant. *Okafor, Piesse and Webster (2017)* on the MENA region and Africa highlights that human capital, represented by the percentage of the population in technical education, has an insignificant impact on FDI; this could be explained by the fact that human capital in these regions has not yet reached the required threshold in technical education to stimulate efficiency and attract skill-seeking FDI. Additionally, a well-educated labor force can be key in attracting FDI. This result is accordance with *Hakro & Omezzine (2011)*, *Scholes & Wolfson (1990)* and *Desai et al. (2004)*.

Likewise, wireless mobile technology which is considered among technology's infrastructure is associated with higher FDI inflows. *Soremekun and Malgwi (2012)* illustrates this relationship by studying via Directed Acyclic Graphs (DAGs), using the Partial Correlation (PC) and Greedy Equivalence Search (GES) algorithms in 47 African emerging markets for three time periods – 2001, 2004 and 2006. Their results show a growth in mobile technology in African economies and antecedent of FDI, in line with *Koyuncu and Ünver (2016)*. Several economic studies suggest that African economies are largely left behind developmentally when it comes to foreign direct investment (FDI) flows. The adoption of wireless mobile technology is increasingly gaining popularity globally and most especially in Africa. There is a directed effect from mobile phone growth to FDI.

An often neglected variable is the population of a country, popular belief assumes that a large population could lead to a decline in economic growth. *Thomas Robert Malthus*<sup>8</sup> asserted that large population was a big problem for developing countries. In a sample of 56 countries of Sub-Saharan Africa (SSA) and Asia, *Abdul Aziz (2012)* found that a country's population size is be positively related to FDI. However, investors must find the highly educated, trained and skilled workforce. This was also consistent with the findings of *Trkulja (2005)*.

Moreover, there has been extensive research on the interrelations between FDI and employment. Labor market is equally important to macroeconomic indicators, influencing the decisions of foreign investors and MNCs. According to *Blanchard 2011*, higher unemployment rate generates two advantages a big number of labor force at low wages. However, according to, *Barua, Suborna, Naym, Junnatun and Hazera-Tun-Nessa (2017)* unemployment rate found to have significant but negative impact on FDI

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<sup>8</sup> English cleric and scholar, influential in the fields of political economy and demography, (1766-1834)

inflows. In an effort to identify the causality between both factors, *Strat, Davidescu, Maria Paul (2014)* explains that therefore that foreign investors will search locations where the availability of the work force will not be a problem.

***Endowment Variables***(Wheeler and Mody 1992) whereas factor endowments theory argues that FDI is drawn to those countries where lower wages and more abundant natural resources prevail.

*Krugman and Obstfeld (2009)* highlights that the determinants of FDI are characterized by factor endowments and raw materials. According to *Aziz and Mishra (2015)*, FDI in Arab economies appears to be resource seeking since the total oil supply variable is positive and significant in the Arab economies. However, *Mina (2007)* previously examined the OLI paradigm in Gulf Council Countries using panel data over the period from 1980 to 2002 and found that reserves and oil production have negative influence on FDI inflows which is contrary to the expectations of positive relation between oil resources and FDI inflows. The positive relationship could be explained by analyzing where FDI tend to flow; *Wright & Zhu (2018)* explains that it tends to flow where the control of key economic sectors is in the hand of dictators and strong families and where high level of corruption and lack of institutional constraints exist.

On the other hand, very little research mentions how the surface area of a country influences FDI. However, *Chanegriha, Stewart and Tsoukis (2016)* found that coastal countries attract more FDI than landlocked ones, this is also consistent findings in of *Easterly and Levine (2001)*. Additionally, they found that Spanish and Arabic speaking countries were more prone to attract FDI.

### III. METHODOLOGY

#### i. Selected Variables<sup>9</sup>

The below variables have been selected based on their potential significance in determining FDI, on the back of contemporary economic theory. Some variables such as tax revenue as a % of GDP were selected due to the lack of data on other variables for the selected country sample.

- DEPENDENT VARIABLE

- **FDI as a % of GDP** is selected as the dependent variable rather than FDI in absolute value. to calibrate FDI relative to market size.

- INDEPENDENT VARIABLES

- **Exports, imports** are measures of trade and trade infrastructure.
- **Government Expenditure** is usually conducive to FDI, especially in less prosperous countries where government spending can be a lifeline to struggling economies.
- **Cellular subscriptions per 100 inhabitants** are selected to measure technological infrastructure.
- **Access to electricity** which indicates that there is a conducive core infrastructure for all types on investment.
- **International Country Risk Guide** is a renowned institution which computes institutional quality via measurement of multiple indices that measure, corruption bureaucracy, legal rights, etc.. ICRG use specific well-structured questions and get professionals on each topic to compute the ranking for each country based on the same uniform set of criteria.
- **Natural resource rents as a percentage of GDP** is selected to control for cash lush resource rich countries

Other generic control variables were inserted to avoid omission bias in explaining FDI, such as **Market Size (GDP), GDP Per Capita, Population, Labor Force, Natural Resource Rents and Surface Area.**

**TABLE 1 : SELECTED VARIABLES**

#	Variable	Definition
1.	<b>Foreign Direct Investment</b>	Foreign direct investment are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor, as a % of GDP

<sup>9</sup> Please refer to ANNEX 1 for longer definitions, calculation method and sources of each variable.

2.	<b>Access To Electricity</b>	Access to electricity is the percentage of population with access to electricity.
3.	<b>Tax Revenue</b>	Tax revenue refers to compulsory transfers to the central government for public purposes, as a % of GDP
4.	<b>Exports</b>	Exports of goods and services represent the value of all goods and other market services provided to the rest of the world, as a % of GDP
5.	<b>Imports</b>	Imports of goods and services represent the value of all goods and other market services received from the rest of the world, as a % of GDP
6.	<b>Inflation</b>	Inflation as measured by the consumer price index reflects the annual percentage change in the cost
7.	<b>Gross Fixed Capital Formation</b>	Gross fixed capital formation is essentially net investment. It is a component of the Expenditure method of calculating GDP.
8.	<b>Current Account Balance</b>	Current account balance is the sum of net exports of goods and services, as a % of GDP
9.	<b>Gdp \$</b>	GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products.
10.	<b>GDP Growth</b>	Annual percentage growth rate of GDP at market prices based on constant local currency.
11.	<b>GDP Per Capita</b>	GDP per capita is gross domestic product divided by midyear population
12.	<b>Manufacturing Value Added</b>	Manufacturing refers to industries belonging to ISIC divisions 15-37, as a % of GDP
13.	<b>Government Final Consumption Expenditure</b>	General government final consumption expenditure, as a % of GDP
14.	<b>Surface Area</b>	Surface area is a country's total area
15.	<b>Population</b>	Total population is based on the de facto definition of population
16.	<b>Labor Force</b>	Labor force comprises people ages 15 and older who supply labor for the production of goods and services during a specified period
17.	<b>Cellular Subscription Per 100 Inhabitants</b>	Mobile cellular telephone subscriptions are subscriptions to a public mobile telephone service, using cellular technology
18.	<b>Icrg Government Stability (GS)</b>	Assessment both of the government's ability to carry out its declared program(s), and its ability to stay in office
19.	<b>Icrg Socio-Economic Conditions (SC)</b>	Assessment of the socioeconomic pressures at work in society that could constrain government action or fuel social dissatisfaction
20.	<b>Icrg Investment Profile (IP)</b>	Assessment of factors affecting the risk to investment that are not covered by other political, economic and financial risk components
21.	<b>Icrg Internal Conflict (IC)</b>	Assessment of political violence in the country and its actual or potential impact on governance.

*i. Descriptive Statistics*

**TABLE 2: DESCRIPTIVE STATISTICS FOR 30 SELECTED VARIABLES**

	AELC	CELL	CA	EX-GDP	FDI	FRAI-CL	FRAI-PR	GDP Bn	GCAP 'k	GDP-G	GFCE	GFCF	IC-BQ	IC-COR	IC-DA	IC-EC	IC-ET	IC-GS
<b>Mean</b>	87.19	67.25	-0.93	42.86	5.63	2.08	1.97	736.00	20.18	3.09	17.71	21.86	2.73	3.60	5.02	10.50	4.36	7.98
<b>Median</b>	100.00	74.05	-1.40	36.07	2.71	2.00	1.00	164.00	12.20	3.10	18.46	21.49	3.00	3.50	5.50	10.50	4.50	7.92
<b>Maximum</b>	100.00	172.18	24.71	222.70	123.10	6.00	7.00	18,600.00	119.22	25.56	30.05	42.79	4.00	6.00	6.00	12.00	6.00	11.08
<b>Minimum</b>	0.04	0.00	-61.55	6.98	-43.46	1.00	1.00	0.95	0.22	-14.76	4.54	8.95	0.00	1.00	1.00	5.25	0.92	2.00
<b>Std. Dev.</b>	25.99	49.43	7.19	28.76	11.67	1.39	1.58	2,100.00	21.22	3.48	4.56	4.67	1.16	1.32	1.23	1.26	1.21	1.59
<b>Skewness</b>	-1.97	-0.02	-1.34	2.47	5.23	1.23	1.57	5.86	1.53	-0.03	-0.21	0.47	-0.51	0.14	-1.17	-0.91	-0.33	-0.13
<b>Kurtosis</b>	5.50	1.58	13.76	11.76	39.52	3.45	4.14	40.62	5.75	7.45	2.50	4.36	2.24	1.94	3.32	3.73	2.39	2.56

	ICRG_IC	ICRG_IP	ICRG_L_O	ICRG_MIP	ICRG_RT	ICRG_SC	IMP	INFL	LBR Mn	MVA	ResRents	POP Mn	SURA Mn	TAXREV
<b>Mean</b>	9.89	8.90	4.45	4.84	5.02	6.59	42.90	13.20	15.85	14.50	4.92	35.14	0.91	19.38
<b>Median</b>	10.00	8.83	5.00	5.50	5.00	6.79	35.14	3.09	5.98	14.72	0.81	14.69	0.31	18.71
<b>Maximum</b>	12.00	12.00	6.00	6.00	6.00	11.00	236.39	2075.89	163.00	50.64	60.12	323.00	9.98	55.34
<b>Minimum</b>	4.25	3.00	1.00	0.00	1.50	1.00	7.91	-4.48	0.14	1.53	0.00	0.36	0.00	1.48
<b>Std. Dev.</b>	1.58	2.23	1.29	1.54	1.02	2.28	27.31	101.37	26.36	5.78	10.07	54.23	2.10	7.68
<b>Skewness</b>	-0.64	-0.15	-0.50	-1.39	-1.24	-0.27	2.63	17.77	3.69	0.82	3.25	3.22	3.60	0.98
<b>Kurtosis</b>	2.98	1.91	2.28	4.13	4.29	2.47	12.82	339.13	18.18	7.60	14.14	14.65	14.64	5.32

Table 2 above illustrates the descriptive statistics for all the 33 variables tested before refining the model based on auto correlation and the model results. The table is illustrative in that gives an aggregated summary descriptive of the values for each variable with a main view to the mean, minimum, maximum and standard deviation. Skewness and kurtosis are additionally displayed the model analysis.

Several outlier packages are available in EVIEWS and other econometric platforms, however, in this paper, data was assessed manually on a country by country basis for each variable and where outliers were found all variables for the respective period with outliers was fully removed (which along with the removal of missing data contributed to the model being unbalanced). Although automatic packages are undisputedly stronger resources, the manual method was utilized to use subjectivity to maintain data points which may seem like outliers but would omit relevant datapoints in explaining the dependent variable. As such, extreme data points which do not contribute to a concise view for each country were subjectively eliminated.

The minimum/maximum figures in the statistics above may appear as outliers such as in GDP. However, these were used in the paper along with other variables as control variables which contributed to minimizing omitted variable bias.

ii. Selected Estimation Mechanics

○ REDUNDANT FIXED EFFECTS TESTS

We use EViews to test the significance of both the Cross Section and Period, F-test, and the Chi-Square to test likelihood function. Results show very strong significance in rejecting the null hypothesis that cross section effects are redundant. Evaluating the joint significance of both cross section and period also significantly rejects the null hypothesis which facilitates for us to proceed with fixed effects modelling as the more suited methodology to the data.

**TABLE 3 – Redundant Fixed Effects Test**

Redundant Fixed Effects Tests			
Test cross-section and period fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.982719	(51,798)	0.0000
Cross-section Chi-square	205.222067	51	0.0000
Period F	0.845110	(25,798)	0.6841
Period Chi-square	23.648960	25	0.5397
Cross-Section/Period F ***	3.050371	(76,798)	0.0000
Cross-Section/Period Chi-square ***	230.810007	76	0.0000

iii. Selected Model Iterations

○ Final Variable Selection:

$$\begin{aligned}
 FDIGDP_{it} = & c + \beta_1(Electricity_{it}) + \beta_2(Cellular_{it}) + \beta_3(Exports_{it}) + \beta_4(LGdp_{it}) \\
 & + \beta_5(Gdp\ Growth_{it}) + \beta_6(Government\ Expenditure_{it}) + \\
 & \beta_7(Gross\ Fixed\ Capital\ Formation_{it}) + \beta_8(Imports_{it}) + \beta_9(Inflation_{it}) + \\
 & \beta_{10}(Manufacturing\ Value\ Added_{it}) + \beta_{11}(Resource\ Rents_{it}) + \\
 & \beta_{12}(LPopulation_{it}) + \beta_{13}(LArea_{it}) + \beta_{14}(Tax\ Revenue_{it}) + \\
 & \beta_{15}(FHCivil\ Liberties_{it}) + \beta_{16}(FH\ Political\ Rights_{it}) + \\
 & \beta_{17}(ICBureaucracy\ Quality_{it}) + \beta_{18}(IC\ Corruption_{it}) + \\
 & \beta_{19}(IC\ Deomcratic\ Accountability_{it}) + \beta_{20}(IC\ External\ Conflict_{it}) + \\
 & \beta_{21}(IC\ Ethnic\ ensionsT_{it}) + \beta_{22}(IC\ Government\ Stability_{it}) + \\
 & \beta_{23}(IC\ Internal\ Conflict_{it}) + \beta_{24}(IC\ Investment\ Profile_{it}) + \\
 & \beta_{25}(IC\ Law\ Order_{it}) + \beta_{26}(IC\ Military\ In\ Politics_{it}) + \\
 & \beta_{27}(IC\ Religious\ Tensions_{it}) + \beta_{28}(IC\ Socio - economic\ Conditions_{it}) + \mu_{it}
 \end{aligned}$$

○ Variable Iteration 1:

$$\begin{aligned}
 FDIGDP_{it} = & c + \beta_1(Electricity_{it}) + \beta_2(Cellular_{it}) + \beta_3(Current\ AccountP_{it}) + \\
 & \beta_4(Exports_{it}) + \beta_5(Gdp\ Capitait) + \beta_6(Gdo\ Growth_{it}) + \\
 & \beta_7(Government\ Expenditure_{it}) + \beta_8(Gross\ Fixed\ Capital\ Formation_{it}) +
 \end{aligned}$$



$$\begin{aligned} & \beta_9(\text{Imports}_{it}) + \beta_{10}(\text{Inflation}_{it}) + \beta_{11}(\text{Labour}_{it}) + \\ & \beta_{12}(\text{Manufacturing Value Added}_{it}) + \beta_{13}(\text{Resource Rents}_{it}) + \beta_{14}(\text{POP}_{it}) + \\ & \beta_{15}(\text{Area}_{it}) + \beta_{16}(\text{Tax Revenue}_{it}) + \beta_{17}(\text{FHCivil Liberties}_{it}) + \\ & \beta_{18}(\text{FH Political Rights}_{it}) + \beta_{19}(\text{ICBureaucracy Quality}_{it}) + \\ & \beta_{20}(\text{IC Corruption}_{it}) + \beta_{21}(\text{IC Deomcratic Accountability}_{it}) + \\ & \beta_{22}(\text{IC External Conflict}_{it}) + \beta_{23}(\text{IC Ethnic ensions}_{it}) + \\ & \beta_{24}(\text{IC Government Stability}_{it}) + \beta_{25}(\text{IC Internal Conflict}_{it}) + \\ & \beta_{26}(\text{IC Investment Profile}_{it}) + \beta_{27}(\text{IC Law Order}_{it}) + \\ & \beta_{28}(\text{IC Military In Politics}_{it}) + \beta_{29}(\text{IC Religious Tensions}_{it}) + \beta_{30}(\text{IC Socio -} \\ & \text{economic Conditions}_{it}) + \mu_{it} \end{aligned}$$

○ Variable Iteration 2:

$$\begin{aligned} \text{FDIGDP}_{it} = c + & \beta_1(\text{Electricity}_{it}) + \beta_2(\text{CCellular}_{it}) + \beta_3(\text{Current Account}_{it}) + \\ & \beta_4(\text{Exports}_{it}) + \beta_5(\text{GdpCapita}_{it}) + \beta_6(\text{Gdp Growth}_{it}) + \\ & \beta_7(\text{Government Expenditure}_{it}) + \beta_8(\text{Gross Fixed Capital Formation}_{it}) + \\ & \beta_9(\text{Imports}_{it}) + \beta_{10}(\text{Inflation}_{it}) + \beta_{11}(\text{Labour}_{it}) + \\ & \beta_{12}(\text{Manufacturing Value Added}_{it}) + \beta_{13}(\text{Resource Rents}_{it}) + \\ & \beta_{14}(\text{Population}_{it}) + \beta_{15}(\text{Area}_{it}) + \beta_{16}(\text{Tax Revenue}_{it}) + \beta_{17}(\text{FDI}(-1)_{it}) + \\ & \beta_{18}(\text{FDI} - 2)_{it}) + \beta_{19}(\text{FHCivil Liberties}_{it}) + \beta_{20}(\text{FH Political Rights}_{it}) + \\ & \beta_{21}(\text{ICBureaucracy Quality}_{it}) + \beta_{22}(\text{IC Corruption}_{it}) + \\ & \beta_{23}(\text{IC Deomcratic Accountability}_{it}) + \beta_{24}(\text{IC External Conflict}_{it}) + \\ & \beta_{25}(\text{IC Ethnic ensions}_{it}) + \beta_{26}(\text{IC Government Stability}_{it}) + \\ & \beta_{27}(\text{IC Internal Conflict}_{it}) + \beta_{28}(\text{IC Investment Profile}_{it}) + \\ & \beta_{29}(\text{IC Law Order}_{it}) + \beta_{30}(\text{IC Military In Politics}_{it}) + \\ & \beta_{31}(\text{IC Religious Tensions}_{it}) + \beta_{32}(\text{IC Socio - economic Conditions}_{it}) + \mu_{it} \end{aligned}$$

#### IV. EMPIRICAL RESULTS AND DISCUSSION

##### MODEL STEPS - ITERATIONS

TABLE 9 below displays the ordinary least squares regression conducted to test the 28 variables selected to test significance in the variability of FDI net inflows as a percentage of GDP. The regression illustrates that the selected variables explain 47.7% of the variability in the dependent variable. The Durban Watson Stat is at 1.34 implying some multicollinearity. Two previous iterations of variables were regressed before using the final form. The previous iterations comprised the following characteristics:

- Included Current account Balance as a percentage of GDP (eliminated in the final form we selected, since it is a mirror of imports + Exports and makes way by shifting significance for both Gross Fixed Capital Formation as a percentage of GDP and Government Final Consumption Expenditure as a percentage of GDP).

- Included GDP per Capita, Population and Surface Area, which were replaced with the natural Log of GDP, natural Log of Population and natural Log of Surface Area. This was done to make their distribution more normal and reduce outliers in the variables and the actual variable influence since they are control variables in this study.

The initial tests show that following variables are significant in determining the variability in FDINGDP at more than the 95% confidence interval:

- **FINAL VARIABLE SELCTION REGRESSION**
  - Cellular Subscription per 100 inhabitants – *significant at the 97% confidence interval*
  - Exports as a % of GDP – *significant at the 99% confidence interval*
  - Imports as a % of GDP – *significant at the 99% confidence interval*
  - Government final consumption expenditure as a % of GDP – *significant at the 95% confidence interval*
  - Gross fixed capital formation as a % of GDP – *significant at the 98% confidence interval*
  - ICRG Investment Profile – *significant at the 98% confidence interval*
- **PREVIOUS VARIABLE ITERATION**
  - FDINGDP (t-1) – *significant at the 99% confidence interval*
  - FDINGDP (t-2) – *significant at the 99% confidence interval*
  - Current Account % of GDP – *significant at the 99% confidence interval*

### **Cellular subscription per 100 people – 0.0262**

Cellular subscription per inhabitant illustrates a highly positive **coefficient of 0.58** at a very high **confidence level of 0.0262**, implying that the the variable is a same direction determinant of FDI. Cellular subscription is among the infrastructure indicator of an economy (UNCTAD, 1999). Countries with more advanced infrastructure level facilitate a more conducive platform for businesses to thrive, through accessibility and lower costs, in-trun generating higher FDI inflows. The results are consistent with several studies notably *Morisset, 1992; UNCTAD, 1999; Asiedu, 2006 and Soremekun & Malgwi<sup>10</sup>2012*.

### **Exports as a % of GDP – 0.0000**

Exports as a % of GDP illustrates a highly positive **coefficient of 0.58** at a very high **confidence level of 0.0000**, implying that the EXP%GDP is a same direction determinant of the dependent variable. This is consistent with basic economic theory that generically exports' share of GDP implies a competitive

economic framework vs global peers and an ability to source foreign currency. This would probably be backdropped on either competitive local attributes such as low resource costs with cheap labor or highly accessible cheap technology. The results are consistent with the findings of *Navaretti, Venables, & Barry, (2004) and Markusen & Maskus (2002)*.

### **Imports as a % of GDP – 0.0000**

Imports as a % of GDP illustrates a negative **coefficient of -0.405** at a very high **confidence level of 0.0000**, implying that the IMP%GDP is an inverse determinant of the dependent variable. This implies that over the large diverse country base IMP%GDP is a deterrent to FDI probably on the basis that countries with productivity significantly dependent on imports may generally imply low intrinsic value addition productivity and attractive business opportunities. Unbalanced trade weighted towards imports would also generically result in a lack of foreign currency availability and a potentially weak currency regime, which is classified as a significant deterrent to foreign investment due to cross currency losses overhang at the exit phase of all foreign equity and debt investment. This may be summarized with an implication of low intrinsic value addition productivity and a lack of attractive business opportunities, which are deterrents to FDI. Again, this is consistent with the results shown in (*Kim and Kim, 2006 and Abell, 1990<sup>11</sup>*).

**This paper's model results on Trade, measured via Exports and Imports, shows significance in determining the variability in FDI. Trade may be argued to be the single largest contributing factor to this variability when statistical findings are complemented with basic data on countries with the largest trade vs. country's which are the largest recipients of Foreign Direct Investment. The charts below show that of the top 10 traders globally, 6 were in the 11 largest recipients of FDI in the year 2017 (World Trade Report and UNCTAD). This is very strong corroboration of the statistical findings and accordingly can be viewed as a key aspect of focus for policy makers around the globe, and especially for regions who have been unable to unlock the difficult task of shifting their fortunes in attracting FDI.**

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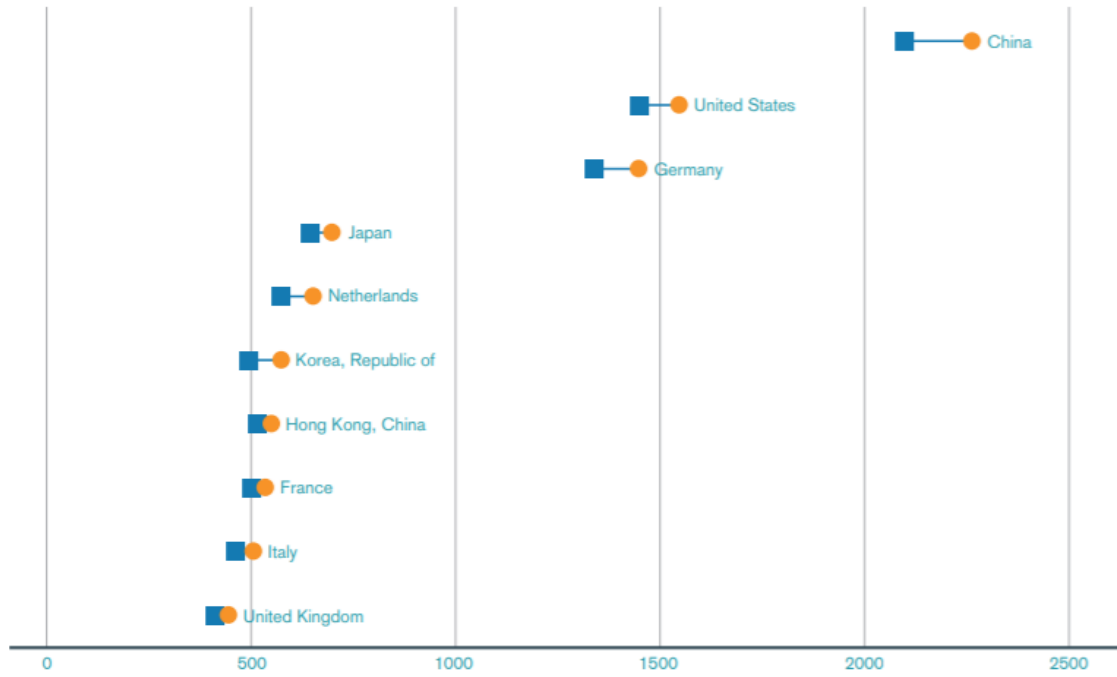
<sup>11</sup> Manoranjan Sahoo<sup>1</sup>, M Suresh Babu<sup>2</sup> and Umakant Dash<sup>3</sup> Effects of FDI flows on Current Account Balances: Do Globalisation and Institutional Quality Matter?

Chart 2.5

### Leading exporters and importers in world merchandise trade, 2016-2017

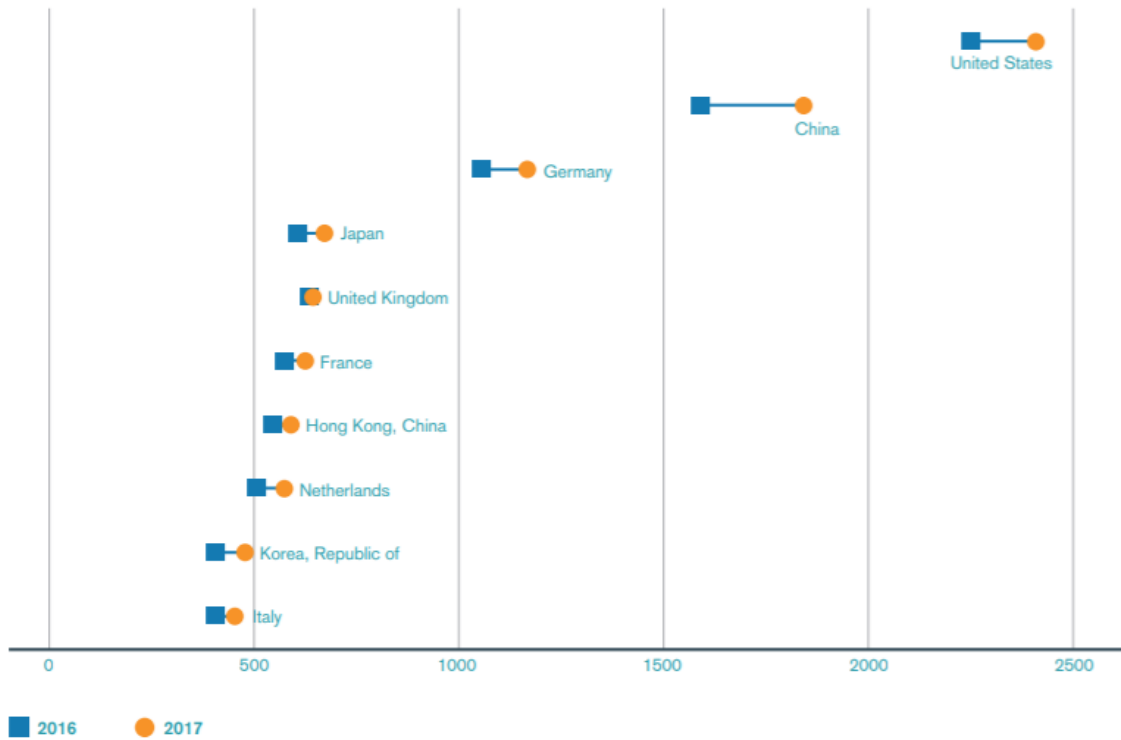
(US\$ billion)

#### Top ten exporters



Source: World Trade Organisation

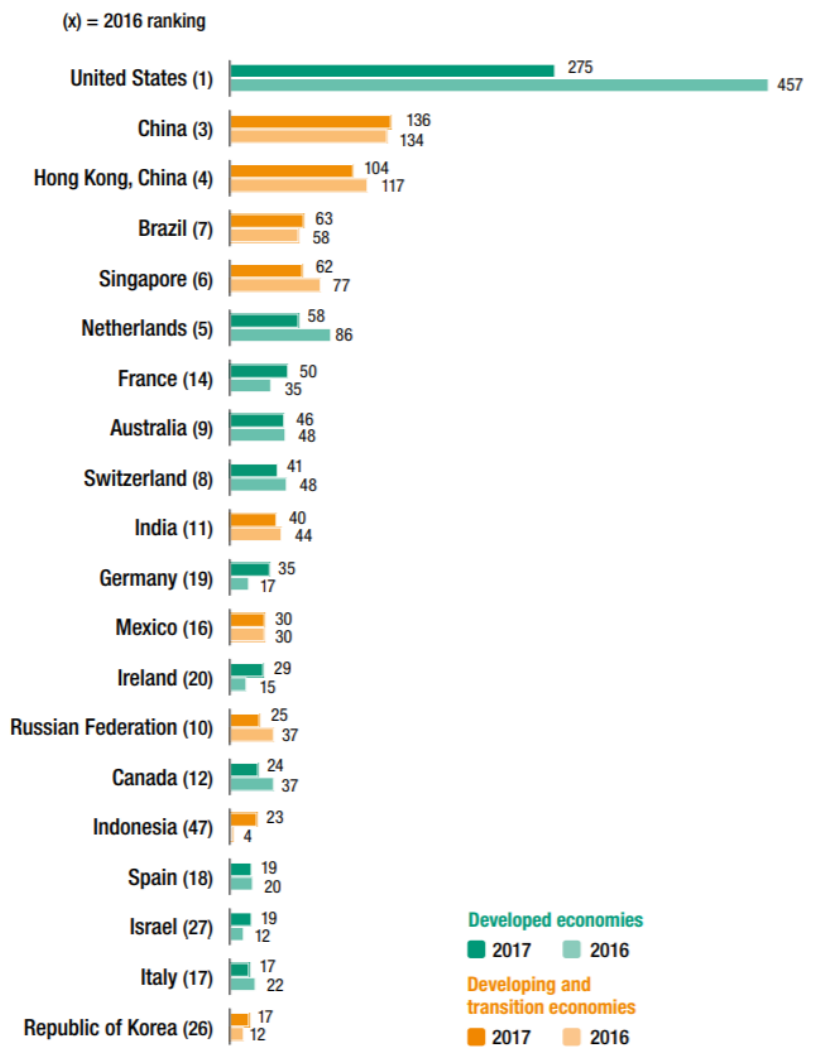
#### Top ten importers



Source: WTO-UNCTAD estimates.

Source: World Trade Organisation

**Figure 3. FDI inflows, top 20 host economies, 2016 and 2017**  
(Billions of dollars)



Source: UNCTAD

### Government final consumption expenditure % GDP – 0.0494

GDP Growth illustrates a relatively low positive **coefficient of 0.51** at a high **confidence level of 0.0494** , implying that government expenditure is a same direction determinant of FDI. This is probably more pressing for weaker economies where government expenditure provides a regular lifeline to the economy to support economic productivity and growth. This resonates well with the Investment Development Path<sup>12</sup> in which *Narula and Dunning (2010)* argue that government spending is crucial for FDI inflow to make the domestic economy more attractive for FDI inflows; productive expenditure in infrastructure, education, health and technology transfer.

<sup>12</sup> IDP is part of the OLI paradigm, it is divided into five stage.

### **Gross fixed capital formation % GDP – 0.0198**

GDP Growth illustrates a relatively low positive **coefficient of 0.31** at a high **confidence level of 0.0198**, implying that investment is positively conducive to FDI. This resonates well with the findings of *Plossner & Levine and Renelt*<sup>13</sup> (1992) where gross capital formation directly influences economic growth in two ways: increasing the physical capital stock or by promoting technology indirectly which leads a country to be more attractive to FDI inflows. The aforementioned is consistent with *A. Amighini, McMillan and Sanfilippo's* (2017).

### **International Country Risk Guide, Investor Profile – 0.0202**

**ICRG IP** illustrates a positive **coefficient of 0.87** at a high **confidence level of 0.0202**, implying that this variable computed by the systematically driven survey based framework, is a same direction determinant of the dependent variable. These findings are consistent with *Chanegriha, Stewart and Tsoukis* (2016) study which showcase that nations with greater democratic accountability have higher FDI, as well as *Tintin* (2013) who argues economic freedoms, state fragility and political rights, have the most significant impact on attracting FDI.

The model results for ICRG investment profile also appear to be a key attribute to follow by policy makers as of the top 15 recipients of FDI as per the table above, 10 were within the top 15 countries ranked by the ICRG. However improving investment profile is a complex attribute to measure and improve, which indicates that significant improvement in this attribute will be more of a medium term goal to realistically achieve.

### **PREVIOUS ITERATION SIGNIFICANT VARIABLES**

#### **Current Account % of GDP – 0.0000**

Current Account Balance as a % of GDP has a negative **coefficient of -0.49** at a very high **confidence level of 0.0000**, implying that the CAB%GDP is negatively correlated to FDI. This is consistent with basic economic theory that generically a stressed current account balance would be a deterrent to FDI inflows as it will largely affect investment in government treasuries and instruments in addition to equity investments in any currency regime that is not naturally lush with cash to sustain a fixed foreign exchange rate for a prolonged time. *Kim and Kim, 2006 and Abell, 1990* explains that the rising capital inflows as well as the rising level of imports and decreasing level of exports, may appreciate domestic currency and worsen the economy's current balance account.

**TABLE 9 – Regression Model Results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-161.3474	216.4933	-0.745277	0.4563
<b><u>MACROECONOMIC VARIABLES</u></b>				
ACCESS_ELECTRICITY	-0.123502	0.112890	-1.094003	0.2743
<b>EXPORTS_GDP ***</b>	<b>0.582710</b>	<b>0.079718</b>	<b>7.309659</b>	<b>0.0000</b>
<b>IMPORTS_GDP ***</b>	<b>-0.513320</b>	<b>0.067153</b>	<b>-7.644003</b>	<b>0.0000</b>
GDP_GROWTH	0.230282	0.124343	1.851989	0.0644
LGDP	-2.388210	1.975381	-1.208987	0.2270
<b>GOVERNMENT_FINAL_CE_GDP ***</b>	<b>0.506121</b>	<b>0.257107</b>	<b>1.968522</b>	<b>0.0494</b>
<b>GROSS_FCF_GDP ***</b>	<b>0.309752</b>	<b>0.132712</b>	<b>2.334014</b>	<b>0.0198</b>
INFLATION	-0.000852	0.003705	-0.229896	0.8182
MANUFAC_VA_GDP	-0.047904	0.211492	-0.226506	0.8209
TAX_REV_GDP	-0.025299	0.129500	-0.195356	0.8452
<b><u>HUMAN CAPITAL VARIABLES</u></b>				
LPOPULATION	12.58118	8.290836	1.517480	0.1295
<b>CELLULAR_SUBSCR_PER_100 ***</b>	<b>0.056660</b>	<b>0.025437</b>	<b>2.227430</b>	<b>0.0262</b>
<b><u>ENDOWEMENT VARIABLES</u></b>				
NATURAL_RE_RENTS_GDP	-0.242381	0.129738	-1.868239	0.0621
LAREA	-0.251878	14.27638	-0.017643	0.9859
<b><u>INSTITUTIONAL VARIABLES</u></b>				
ICRG_BUREACRACY	0.033733	1.536145	0.021960	0.9825
ICRG_CORRUPTION	0.326727	0.698210	0.467950	0.6399
ICRG_DEMOCRATIC ACCOUNTABILITY	0.900219	0.721040	1.248501	0.2122
ICRG_EXTERNAL CONFLICT	0.160149	0.474950	0.337192	0.7361
ICRG_ETHNIC TENSIONS	0.536573	0.865003	0.620313	0.5352
ICRG_GOVERNMENT STABILITY	-0.556081	0.346196	-1.606262	0.1086
ICRG_INTERNAL CONFLICT	0.090114	0.458759	0.196429	0.8443
<b>ICRG_INVESTMENT PROFILE ***</b>	<b>0.868304</b>	<b>0.373050</b>	<b>2.327582</b>	<b>0.0202</b>
ICRG_LAW&ORDER	-0.150118	0.962657	-0.155941	0.8761
ICRG_MILITARY IN POLITICS	-0.098881	0.888752	-0.111258	0.9114
ICRG_RELIGIOUS TENSIONS	-0.002093	0.801680	-0.002611	0.9979
ICRG_SOCIOECONOMIC CONDITIONS	-0.482378	0.438482	-1.100110	0.2716
FREEDOM_HOUSE_CIVIL LIBERTIES	0.760407	1.043388	0.728786	0.4663
FRAEEDOM_HOUSE_POLITICAL RIGHTS	1.360440	0.913184	1.489776	0.1367

**Effects Specification**

Cross-section fixed (dummy variables)

Period fixed (dummy variables)

R-squared	0.476774	Mean dependent var	5.629629
Adjusted R-squared	0.408755	S.D. dependent var	11.67320
S.E. of regression	8.975815	Akaike info criterion	7.335666
Sum squared resid	64452.20	Schwarz criterion	7.893492
Log likelihood	-3214.389	Hannan-Quinn criter.	7.548703
F-statistic	7.009389	Durbin-Watson stat	1.340452
Prob(F-statistic)	0.000000		

## V. Conclusion

This thesis takes a step back as opposed to the recent literature trend on FDI which is abundantly narrow scoped and detail oriented in terms of dimension; i.e. countries, regions, and variables. This thesis aimed to re-examine and assess the variables with the most significance in determining the variability of FDI inflows as a % of GDP, across a large number of variables and economies, regardless of their specifications and characteristics. This culminates in results that the variables that drive FDI the 95% confidence interval are as follows:

- **Trade** - exports and imports as % of GDP,
- **Investment & Expenditure** - Gross fixed capital formation as a % of GDP and general government final expenditure as a % of GDP,
- **Institutional Quality** - International Country Risk Guide Investment Profile, and
- **Technological Accessibility** - cellular subscription as a portion of population.

Conversely, **natural resource rents, tax revenue as a % of GDP, and GDP growth** did not result to be significant in determining the variability in FDI for this wide-ranging dataset.

As such, the indication is that governments should focus on improving trade facilitating infrastructure, technological accessibility, and institutional quality, stabilizing monetary and fiscal platforms.

### Policy Implication

Policy recommendation are summarized in that trade openness is a very important determinant of FDI and, thus, efforts targeted at trade policies should be seriously pursued. Raising exports to attract FDI is a key policy for any government, policies must be designed to encourage the development of non-tradition exports and diversity commodities to avoid over dependence on a single good or service. Moreover, having bilateral trades' agreements in different regions; to encourage cross-border trade, improve the quality of production and increase competition which makes the economy as a whole attractive on the global scale.

In parallel, the government should create an investment climate that guarantees investor's rights and investment overall framework through the presence of strong institutions, improve both the quality and speed of business regulation, and increase government support by establishing a strong rule of law and curbing corruption.



### **Limitation**

Although this thesis adds value in indicating that trade/trade infrastructure, financial and institutional variables are the main generic determinants for FDI, it is limited in that governments would need to complement these results with more specific research papers on select countries and narrower variable pools to come to a comprehensive view for each regional and specific country assessment.

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VI. Annex 1

TABLE 3: CORRELATION MATRIX

	AELC	CELL	CA-GDP	EX-GDP	FDI-NGDP	FRAI-CL	FRAI-PR	GDP-Bn	GDP-CAP	GDP-G	GFCE-GDP	GFCE-GDP	IC-BQ	IC-COR	IC-DA	IC-EC	IC-ET	IC-GS	IC-IC	IC-IP	IC-LO	IC-MIP	IC-RT	IC-SC	IMP-GDP	INFL	LBR	MVA-GDP	NERN T-GDP	POP	SURA	TREV-GDP	TRD-GDP	LAR	LGDP	LPOP
AELC	1.00	0.30	0.22	0.09	-0.05	-0.61	-0.60	0.16	0.42	-0.28	0.25	-0.06	0.65	0.41	0.63	0.25	0.37	-0.08	0.39	0.36	0.51	0.62	0.31	0.63	-0.04	-0.01	0.12	0.46	-0.66	0.09	0.04	0.30	0.03	-0.21	0.57	0.06
CELL	0.30	1.00	0.09	0.28	0.16	-0.42	-0.27	0.12	0.48	-0.22	0.28	0.00	0.24	0.01	0.40	-0.17	-0.05	-0.16	0.06	0.53	0.12	0.28	0.08	0.35	0.22	-0.13	0.01	-0.13	-0.17	-0.01	-0.04	0.16	0.26	-0.12	0.35	-0.05
CA-GDP	0.22	0.09	1.00	0.23	-0.18	-0.11	-0.04	-0.01	0.38	-0.05	0.08	-0.07	0.33	0.26	0.05	0.21	0.10	0.08	0.18	0.16	0.26	0.19	0.01	0.28	-0.07	-0.01	-0.03	0.16	-0.09	-0.01	-0.03	0.12	0.09	0.01	0.24	-0.01
EXP-BOP\$	0.25	0.27	0.12	-0.12	-0.04	-0.31	-0.28	0.86	0.46	-0.18	0.14	-0.11	0.41	0.25	0.31	-0.10	-0.01	-0.01	0.12	0.36	0.26	0.20	0.13	0.37	-0.16	-0.05	0.68	0.02	-0.20	0.64	0.43	-0.14	-0.14	0.25	0.70	0.47
EXP-GDP	0.09	0.28	0.23	1.00	0.47	-0.24	-0.15	-0.22	0.39	0.04	0.16	0.07	0.22	0.14	0.20	0.20	0.06	0.10	0.31	0.22	0.25	0.23	-0.04	0.26	0.89	-0.09	-0.37	-0.07	0.03	-0.39	-0.30	0.34	0.97	-0.70	-0.27	-0.64
FDI-NGDP	-0.05	0.16	-0.18	0.47	1.00	-0.08	-0.07	-0.08	0.18	0.12	0.01	-0.02	0.03	0.03	0.13	0.06	0.02	0.07	0.10	0.14	0.06	0.06	-0.04	0.09	0.51	-0.03	-0.14	-0.14	0.11	-0.15	-0.10	0.11	0.50	-0.34	-0.17	-0.30
FDIN_BP\$	0.19	0.21	0.06	-0.04	0.18	-0.25	-0.21	0.76	0.37	-0.07	0.08	-0.08	0.32	0.18	0.25	-0.10	0.02	0.01	0.08	0.33	0.21	0.12	0.07	0.33	-0.08	-0.04	0.63	-0.05	-0.14	0.58	0.47	-0.09	-0.06	0.20	0.52	0.35
FRAI-CL	-0.61	-0.42	-0.11	-0.24	-0.08	1.00	0.91	-0.20	-0.58	0.24	-0.46	0.05	-0.70	-0.58	-0.80	-0.29	-0.40	0.05	-0.61	-0.58	-0.60	-0.78	-0.56	-0.72	-0.17	0.12	0.02	-0.06	0.57	0.10	0.05	-0.34	-0.21	0.39	-0.36	0.29
FRAI-PR	-0.60	-0.27	-0.04	-0.15	-0.07	0.91	1.00	-0.18	-0.50	0.24	-0.39	0.10	-0.69	-0.59	-0.82	-0.35	-0.38	0.09	-0.58	-0.47	-0.56	-0.81	-0.61	-0.66	-0.12	0.06	-0.01	-0.11	0.61	0.07	0.04	-0.29	-0.14	0.34	-0.36	0.23
GDP_\$	0.16	0.12	-0.01	-0.22	-0.08	-0.20	-0.18	1.00	0.29	-0.11	0.00	-0.08	0.26	0.13	0.19	-0.18	0.03	0.04	0.06	0.25	0.14	0.05	0.12	0.24	-0.22	-0.02	0.85	-0.03	-0.13	0.80	0.64	-0.18	-0.23	0.35	0.57	0.46
GDP-CAP	0.42	0.48	0.38	0.39	0.18	-0.58	-0.50	0.29	1.00	-0.26	0.35	-0.06	0.72	0.60	0.57	0.12	0.16	0.01	0.40	0.53	0.62	0.48	0.30	0.73	0.23	-0.09	0.08	-0.10	-0.31	0.02	0.03	0.22	0.32	-0.24	0.50	-0.15
GDP-G	-0.28	-0.22	-0.05	0.04	0.12	0.24	0.24	-0.11	-0.26	1.00	-0.29	0.21	-0.28	-0.22	-0.27	-0.06	-0.07	0.13	-0.11	-0.19	-0.25	-0.15	-0.22	0.09	0.01	-0.06	-0.04	0.28	-0.04	-0.02	-0.08	0.07	0.03	-0.27	-0.06	
GFCE-GDP	0.25	0.28	0.08	0.16	0.01	-0.46	-0.39	0.00	0.35	-0.29	1.00	0.12	0.49	0.39	0.42	0.26	0.18	-0.07	0.40	0.26	0.48	0.54	0.36	0.38	0.12	-0.05	-0.09	-0.04	-0.29	-0.14	-0.06	0.49	0.14	-0.14	0.26	-0.13
GFCE-GDP	-0.06	0.00	-0.07	0.07	-0.02	0.05	0.10	-0.08	-0.06	0.21	0.12	1.00	0.04	0.01	-0.03	0.08	-0.01	0.14	0.14	0.13	0.14	0.03	0.03	0.05	0.09	-0.02	-0.13	0.12	0.11	-0.14	-0.06	0.07	0.08	0.01	-0.06	-0.10
IC_BQ	0.65	0.24	0.33	0.22	0.03	-0.70	-0.69	0.26	0.72	-0.28	0.49	0.04	1.00	0.76	0.69	0.28	0.34	0.03	0.56	0.52	0.78	0.68	0.46	0.81	0.07	-0.04	0.09	0.14	-0.53	0.03	0.36	0.15	-0.25	0.56	-0.09	
IC-COR	0.41	0.01	0.26	0.14	0.03	-0.58	-0.59	0.13	0.60	-0.22	0.39	0.01	0.76	1.00	0.56	0.35	0.38	0.05	0.55	0.27	0.71	0.54	0.48	0.65	0.04	-0.02	-0.06	0.08	-0.38	-0.12	-0.06	0.28	0.09	-0.24	0.30	-0.22
IC-DA	0.63	0.40	0.05	0.20	0.13	-0.80	-0.82	0.19	0.57	-0.27	0.42	-0.03	0.69	0.56	1.00	0.27	0.30	-0.07	0.53	0.49	0.60	0.76	0.47	0.64	0.18	-0.13	0.01	0.12	-0.52	-0.06	-0.06	0.29	0.20	-0.34	0.43	-0.16
IC-EC	0.25	-0.17	0.21	0.20	0.06	-0.29	-0.35	-0.18	0.12	-0.06	0.26	0.08	0.28	0.35	0.27	1.00	0.44	0.00	0.57	0.03	0.34	0.47	0.27	0.22	0.11	0.07	-0.22	0.28	-0.24	-0.24	-0.12	0.17	0.16	-0.21	0.00	-0.24
IC-ET	0.37	-0.05	0.10	0.06	0.02	-0.40	-0.38	0.03	0.16	-0.07	0.18	-0.01	0.34	0.38	0.30	0.44	1.00	0.05	0.53	0.14	0.48	0.48	0.37	0.31	0.01	0.01	-0.11	0.18	-0.28	-0.14	-0.12	0.17	0.03	-0.21	0.05	-0.24
IC-GS	-0.08	-0.16	0.08	0.10	0.07	0.05	0.09	0.04	0.01	0.13	-0.07	0.14	0.03	0.05	-0.07	0.00	0.05	1.00	0.13	0.32	0.05	-0.09	-0.03	0.09	0.11	-0.13	0.00	-0.05	0.12	0.00	0.03	0.08	0.11	-0.05	-0.11	-0.13
IC-IC	0.39	0.06	0.18	0.31	0.10	-0.61	-0.58	0.06	0.40	-0.11	0.40	0.14	0.56	0.55	0.53	0.57	0.53	0.13	1.00	0.30	0.65	0.69	0.46	0.53	0.25	-0.05	-0.11	0.16	-0.39	-0.17	-0.07	0.09	0.29	-0.37	0.12	-0.35
IC-IP	0.36	0.53	0.16	0.22	0.14	-0.58	-0.47	0.25	0.53	-0.11	0.26	0.13	0.52	0.27	0.49	0.03	0.14	0.32	0.30	1.00	0.36	0.41	0.25	0.63	0.13	-0.14	0.05	-0.04	-0.27	0.00	0.03	0.22	0.18	-0.15	0.35	-0.12
IC-LO	0.51	0.12	0.26	0.25	0.06	-0.60	-0.56	0.14	0.62	-0.19	0.48	0.14	0.78	0.71	0.60	0.34	0.48	0.05	0.65	0.36	1.00	0.69	0.46	0.70	0.17	-0.07	-0.10	0.14	-0.50	-0.16	-0.16	0.40	0.22	-0.35	0.34	-0.22
IC-MIP	0.62	0.28	0.19	0.23	0.06	-0.78	-0.81	0.05	0.48	-0.25	0.54	0.03	0.68	0.54	0.76	0.47	0.48	-0.09	0.69	0.41	0.69	1.00	0.57	0.65	0.18	-0.04	-0.10	0.25	-0.66	-0.16	-0.13	0.39	0.21	-0.34	0.35	-0.21
IC-RT	0.31	0.08	0.01	-0.04	-0.04	-0.56	-0.61	0.12	0.30	-0.15	0.36	0.03	0.46	0.48	0.47	0.27	0.37	-0.03	0.46	0.25	0.46	0.57	1.00	0.43	-0.07	0.01	0.07	0.07	-0.39	-0.02	0.14	0.15	-0.06	0.02	0.27	-0.06
IC-SC	0.63	0.35	0.28	0.26	0.09	-0.72	-0.66	0.24	0.73	-0.22	0.38	0.05	0.81	0.65	0.64	0.22	0.31	0.09	0.53	0.63	0.70	0.65	0.43	1.00	0.14	-0.06	0.05	0.13	-0.54	-0.02	0.02	0.41	0.21	-0.32	0.45	-0.20
IMP-GDP	-0.04	0.22	-0.07	0.89	0.51	-0.17	-0.12	-0.22	0.23	0.09	0.12	0.09	0.07	0.04	0.18	0.11	0.01	0.11	0.25	0.13	0.17	0.18	-0.07	0.14	1.00	-0.09	-0.37	-0.13	0.06	-0.40	-0.31	0.30	0.97	-0.70	-0.40	-0.64
INFL	-0.01	-0.13	-0.01	-0.09	-0.03	0.12	0.06	-0.02	-0.09	0.01	-0.05	-0.02	-0.04	-0.02	-0.13	0.07	0.01	-0.13	-0.05	-0.14	-0.07	-0.04	0.01	-0.06	-0.09	1.00	0.11	0.10	0.00	0.13	0.21	-0.08	-0.09	0.13	0.00	0.11
LABR	0.12	0.01	-0.03	-0.37	-0.14	0.02	-0.01	0.85	0.08	-0.06	-0.09	-0.13	0.09	-0.06	0.01	-0.22	-0.11	0.00	-0.11	0.05	-0.10	-0.10	0.07	0.05	-0.37	0.11	1.00	-0.01	-0.07	0.99	0.82	-0.31	-0.38	0.56	0.60	0.69
MVA-GDP	0.46	-0.13	0.16	-0.07	-0.14	-0.06	-0.11	-0.03	-0.10	-0.04	-0.04	0.12	0.14	0.08	0.12	0.28	0.18	-0.05	0.16	-0.04	0.14	0.25	0.07	0.13	-0.13	0.10	-0.01	1.00	-0.37	0.00	-0.04	0.04	-0.11	0.03	0.19	0.17
RNTS-GDP	-0.66	-0.17	-0.09	0.03	0.11	0.57	0.61	-0.13	-0.31	0.28	-0.29	0.11	-0.53	-0.38	-0.52	-0.24	-0.28	0.12	-0.39	-0.27	-0.50	-0.66	-0.39	-0.54	0.06	0.00	-0.07	-0.37	1.00	-0.04	0.02	-0.28	0.05	0.23	-0.36	0.01
POP	0.09	-0.01	-0.01	-0.39	-0.15	0.10	0.07	0.80	0.02	-0.04	-0.14	-0.14	0.03	-0.12	-0.06	-0.24	-0.14	0.00	-0.17	0.00	-0.16	-0.16	-0.02	-0.02	-0.40	0.13	0.99	0.00								

## VII. Annex 2

Indicator Name	Long definition	Source
<b>Access to electricity (% of population)</b>	Access to electricity is the percentage of population with access to electricity. Electrification data are collected from industry, national surveys and international sources.	World Bank, Sustainable Energy for All (SE4ALL) database from the SE4ALL Global Tracking Framework led jointly by the World Bank, International Energy Agency, and the Energy Sector Management Assistance Program.
<b>Exports of goods and services (% of GDP)</b>	Exports of goods and services represent the value of all goods and other market services provided to the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude compensation of employees and investment income (formerly called factor services) and transfer payments.	World Bank national accounts data, and OECD National Accounts data files.
<b>Imports of goods and services (% of GDP)</b>	Imports of goods and services represent the value of all goods and other market services received from the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude compensation of employees and investment income (formerly called factor services) and transfer payments.	World Bank national accounts data, and OECD National Accounts data files.
<b>Inflation, consumer prices (annual %)</b>	Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly. The Laspeyres formula is generally used.	International Monetary Fund, International Financial Statistics and data files.
<b>Gross fixed capital formation (% of GDP)</b>	Gross fixed capital formation (formerly gross domestic fixed investment) includes land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings. According to the 1993 SNA, net acquisitions of valuables are also considered capital formation.	World Bank national accounts data, and OECD National Accounts data files.
<b>Current account balance (% of GDP)</b>	Current account balance is the sum of net exports of goods and services, net primary income, and net secondary income.	International Monetary Fund, Balance of Payments Statistics Yearbook and data files, and World Bank and OECD GDP estimates.
<b>Foreign direct investment, net inflows (% of GDP)</b>	Foreign direct investment are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors, and is divided by GDP.	International Monetary Fund, International Financial Statistics and Balance of Payments databases, World Bank, International Debt Statistics, and World Bank and OECD GDP estimates.
<b>GDP (current US\$)</b>	GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars. Dollar figures for GDP are converted from domestic currencies using single year official exchange rates. For a few countries where the official exchange rate does not reflect the rate effectively applied to actual foreign exchange transactions, an alternative conversion factor is used.	World Bank national accounts data, and OECD National Accounts data files.
<b>GDP growth (annual %)</b>	Annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2010 U.S. dollars. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.	World Bank national accounts data, and OECD National Accounts data files.



<b>GDP per capita (current US\$)</b>	GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars.	World Bank national accounts data, and OECD National Accounts data files.
<b>Manufacturing, value added (% of GDP)</b>	Manufacturing refers to industries belonging to ISIC divisions 15-37. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The origin of value added is determined by the International Standard Industrial Classification (ISIC), revision 3. Note: For VAB countries, gross value added at factor cost is used as the denominator.	World Bank national accounts data, and OECD National Accounts data files.
<b>Tax revenue (% of GDP)</b>	Tax revenue refers to compulsory transfers to the central government for public purposes. Certain compulsory transfers such as fines, penalties, and most social security contributions are excluded. Refunds and corrections of erroneously collected tax revenue are treated as negative revenue.	International Monetary Fund, Government Finance Statistics Yearbook and data files, and World Bank and OECD GDP estimates.
<b>Total natural resources rents (% of GDP)</b>	Total natural resources rents are the sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents, and forest rents.	Estimates based on sources and methods described in "The Changing Wealth of Nations: Measuring Sustainable Development in the New Millennium" (World Bank, 2011).
<b>Population, total</b>	Total population is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship. The values shown are midyear estimates.	(1) United Nations Population Division. World Population Prospects: 2017 Revision. (2) Census reports and other statistical publications from national statistical offices, (3) Eurostat: Demographic Statistics, (4) United Nations Statistical Division. Population and Vital Statistics Reprot (various years), (5) U.S. Census Bureau: International Database, and (6) Secretariat of the Pacific Community: Statistics and Demography Programme.
<b>Surface area (sq. km)</b>	Surface area is a country's total area, including areas under inland bodies of water and some coastal waterways.	Food and Agriculture Organization, electronic files and web site.
<b>General government final consumption expenditure (% of GDP)</b>	General government final consumption expenditure (formerly general government consumption) includes all government current expenditures for purchases of goods and services (including compensation of employees). It also includes most expenditures on national defense and security, but excludes government military expenditures that are part of government capital formation.	World Bank national accounts data, and OECD National Accounts data files.
<b>Labor force, total</b>	Labor force comprises people ages 15 and older who supply labor for the production of goods and services during a specified period. It includes people who are currently employed and people who are unemployed but seeking work as well as first-time job-seekers. Not everyone who works is included, however. Unpaid workers, family workers, and students are often omitted, and some countries do not count members of the armed forces. Labor force size tends to vary during the year as seasonal workers enter and leave.	Derived using data from International Labour Organization, ILOSTAT database and World Bank population estimates. Labor data retrieved in September 2018.
<b>Mobile cellular subscriptions (per 100 people)</b>	Mobile cellular telephone subscriptions are subscriptions to a public mobile telephone service that provide access to the PSTN using cellular technology. The indicator includes (and is split into) the number of postpaid subscriptions, and the number of active prepaid accounts (i.e. that have been used during the last three months). The indicator applies to all mobile cellular subscriptions that offer voice communications. It excludes subscriptions via data cards or USB modems, subscriptions to public mobile data services, private trunked mobile radio, telepoint, radio paging and telemetry services.	International Telecommunication Union, World Telecommunication/ICT Development Report and database.

<b>International Country Risk Guide Political Risk</b>	<p>The Political Risk Rating includes 12 weighted variables covering both political and social attributes. ICRG advises users on means of adapting both the data and the weights in order to focus the rating on the needs of the particular investing firm.</p> <p>The aim of the political risk rating is to provide a means of assessing the political stability of the countries covered by ICRG on a comparable basis. This is done by assigning risk points to a preset group of factors, termed political risk components. The minimum number of points that can be assigned to each component is zero, while the maximum number of points depends on the fixed weight that component is given in the overall political risk assessment. In every case the lower the risk point total, the higher the risk, and the higher the risk point total the lower the risk. <b>To ensure consistency, both between countries and over time, points are assigned by ICRG editors on the basis of a series of pre-set questions for each risk component.</b></p> <p>The ICRG staff collects political information and financial and economic data, converting these into risk points for each individual risk component on the basis of a consistent pattern of evaluation.</p> <p>The political risk assessments are made on the basis of subjective analysis of the available information</p>	International Country Risk Guide Index
<b>ICRG Government Stability</b>	Assessment both of the government’s ability to carry out its declared program(s), and its ability to stay in office. The risk rating assigned is the sum of three subcomponents: Government Unity, Legislative Strength and Popular Support each with a maximum score of four points and a minimum score of 0 points. A score of 4 points equates to Very Low Risk and a score of 0 points to Very High Risk.	International Country Risk Guide Index
<b>ICRG SocioEconomic Conditions</b>	Assessment of the socioeconomic pressures at work in society that could constrain government action or fuel social dissatisfaction. The risk rating assigned is the sum of three subcomponents: unemployment, consumer confidence and poverty, each with a maximum score of four points and a minimum score of 0 points. A score of 4 points equates to Very Low Risk and a score of 0 points to Very High Risk	International Country Risk Guide Index
<b>ICRG Investment Profile</b>	Assessment of factors affecting the risk to investment that are not covered by other political, economic and financial risk components. The risk rating assigned is the sum of three subcomponents: contract, viability/expropriation, payment delays , each with a maximum score of four points and a minimum score of 0 points. A score of 4 points equates to Very Low Risk and a score of 0 points to Very High Risk.	International Country Risk Guide Index
<b>ICRG Internal Conflict</b>	Assessment of political violence in the country and its actual or potential impact on governance. The highest rating is given to those countries where there is no armed or civil opposition to the government and the government does not indulge in arbitrary violence, direct or indirect, against its own people. The lowest rating is given to a country embroiled in an on-going civil war. The risk rating assigned is the sum of three subcomponents: civil war/coup threat, terrorism/political violence and civil disorder, each with a maximum score of four points and a minimum score of 0 points. A score of 4 points equates to Very Low Risk and a score of 0 points to Very High Risk.	International Country Risk Guide Index
<b>ICRG External Conflict</b>	Assessment both of the risk to the incumbent government from foreign action, ranging from non-violent external pressure (diplomatic pressures, withholding of aid, trade restrictions, territorial disputes, sanctions, etc) to violent external pressure (cross-border conflicts to all-out war). External conflicts can adversely affect foreign business in many ways, ranging from restrictions on operations to trade and investment sanctions, to distortions in the allocation of economic resources, to violent change in the structure of society. The risk rating assigned is the sum of three subcomponents: war, cross-border conflict and foreign pressures, each with a maximum score of four points and a minimum score of 0 points. A score of 4 points equates to Very Low Risk and a score of 0 points to Very High Risk.	International Country Risk Guide Index

<b>ICRG Corruption</b>	Assessment of corruption within the political system. Such corruption is a threat to foreign investment for several reasons: it distorts the economic and financial environment; it reduces the efficiency of government and business by enabling people to assume positions of power through patronage rather than ability; and, last but not least, introduces an inherent instability into the political process	International Country Risk Guide Index
<b>ICRG Military in Politics</b>	It refers to the risk of military involvement without a popular mandate. It ranges from 0 to 6. A lower score indicates high level and vice versa.	International Country Risk Guide Index
<b>ICRG Religious Tensions</b>	Religious tensions may stem from the domination of society and/or governance by a single religious group that seeks to replace civil law by religious law and to exclude other religions from the political and/or social process; the desire of a single religious group to dominate governance; the suppression of religious freedom; the desire of a religious group to express its own identity, separate from the country as a whole. It ranges from 0 to 6. A lower score indicates high level and vice versa.	International Country Risk Guide Index
<b>ICRG Law and Order</b>	An assessment for the country's judicial system level. It ranges from 0 to 6. A lower score indicates high level and vice versa.	International Country Risk Guide Index
<b>ICRG Ethnic Tensions</b>	An assessment of the degree of tension within a country attributable to racial, nationality, or language divisions. It ranges from 0 to 6. Lower ratings are given to countries where racial and nationality tensions are high because opposing groups are intolerant and unwilling to compromise.	International Country Risk Guide Index
<b>ICRG Democratic Accountability</b>	It measures the governance enjoyed by the country, it reflects the extent to which elections are free and fair. It measures of how responsive government is to its people, on the basis that the less responsive it is. It ranges from 0 to 6. A lower score indicates high level and vice versa.	International Country Risk Guide Index
<b>ICRG Bureaucracy Quality</b>	It refers to the quality of the bureaucracy that tends to minimise revisions of policy when governments change. It ranges from 0 to 4. A lower score indicates high level and vice versa.	International Country Risk Guide Index
<b>Freedom House Index Political Rights</b>	Evaluates the state of freedom in 195 countries and 15 territories during 2014. Each country and territory is assigned two numerical ratings—from 1 to 7—for political rights with 1 representing the most free and 7 the least free. Countries with a rating of 1 enjoy a wide range of political rights, including free and fair elections. Candidates who are elected actually rule, political parties are competitive, the opposition plays an important role and enjoys real power, and the interests of minority groups are well represented in politics and government.	Freedom House
<b>Freedom House Index Civil Liberties</b>	Evaluates the state of freedom in 195 countries and 15 territories during 2014. Each country and territory is assigned two numerical ratings—from 1 to 7—for political rights and civil liberties, with 1 representing the most free and 7 the least free. Countries with a rating of 1 enjoy a wide range of civil liberties, including freedoms of expression, assembly, association, education, and religion. They have an established and generally fair legal system that ensures the rule of law (including an independent judiciary), allow free economic activity, and tend to strive for equality of opportunity for everyone, including women and minority groups.	Freedom House

### VIII. Annex 3

	<b>Country</b>	<b>Continent</b>	<b>Sub-Continent</b>
1	Algeria	Africa	North Africa
2	Angola	Africa	Central Africa
3	Argentina	South America	South America
4	Belgium	Europe	East Europe
5	Botswana	Africa	South Africa
6	Brazil	South America	South America
7	Burkina Faso	Africa	West Africa
8	Canada	North America	North America
9	Cameroon	Africa	West Africa
10	Chile	South America	South America
11	Cote d'Ivoire	Africa	West Africa
12	Costa Rica	South America	South America
13	Denmark	Europe	North Europe
14	Czech Republic	Europe	East Europe
15	Egypt	Africa	North Africa
16	Ethiopia	Africa	East Africa
17	Gabon	Africa	Central Africa
18	Germany	Europe	Western Africa
19	Ghana	Africa	West Africa
20	France	Europe	West Europe
21	Hungary	Europe	East Europe
22	Ireland	Europe	North Europe
23	Italy	Europe	South Europe
24	Kenya	Africa	East Africa
25	Luxembourg	Europe	West Europe
26	Mauritania	Africa	West Africa
27	Morocco	Africa	North Africa
28	Mozambique	Africa	East Africa
29	Namibia	Africa	South Africa
30	Netherlands	Europe	West Europe
31	Nigeria	Africa	West Africa
32	Norway	Europe	North Europe
33	Niger	Africa	West Africa
34	Portugal	Europe	South Europe
35	Rwanda	Africa	East Africa
36	Peru	South America	South America
37	Senegal	Africa	West Africa
38	Serbia	Europe	South Europe
39	South Africa	Africa	Southern Africa
40	Spain	Europe	South Europe
41	Sweden	Europe	North Europe
42	Switzerland	Europe	West Europe
43	Tanzania	Africa	East Africa
44	Turkey	Europe	East Europe
45	Uganda	Africa	East Africa
46	United States	North America	North America
47	United Kingdom	Europe	North Europe
48	Uruguay	South America	South America

49	Zambia	Africa	East Africa
50	Slovak Republic	Europe	East Europe
51	Liberia	Africa	West Africa
52	Cyprus	Europe	South Europe
53	Malta	Europe	South Europe
54	Congo, DR	Africa	Central Africa
55	Congo	Africa	Central Africa
56	Sierra Leone	Africa	West Africa
57	Georgia	Europe	East Europe
58	Poland	Europe	East Europe
59	Madagascar	Africa	East Africa
60	Equatorial Guinea	Africa	West Africa
61	Guinea	Africa	West Africa
62	Finland	Europe	North Europe
63	Ukraine	Europe	East Europe
64	Romania	Europe	East Europe
65	Greece	Europe	South Europe

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