



JÖNKÖPING UNIVERSITY  
*International Business School*

*The effects of foreign direct  
investment inflows on economic  
growth in OECD countries*

**BACHELOR**

**THESIS WITHIN:** *Economics*

**NUMBER OF CREDITS:** *15 ECET*

**PROGRAMME OF STUDY:** *International  
Economics*

**AUTHOR:** *Mohamed Hashi & William Ericsson*

**JÖNKÖPING** *May 2019*

## **Bachelor in International Economics**

Title: The effects of foreign direct investment on economic growth in OECD countries  
Authors: Mohamed Hashi & William Ericsson  
Tutor: Emma Lappi & Marcel Garz  
Date: 2019-05-06

Key terms: FDI, OECD, Economic growth, Economic development, FDI inflows

---

### **Abstract**

Foreign direct investment is an important topic in economic research. FDI occurs when a firm invests in a foreign country. The purpose of this thesis is to empirically analyze the effects of FDI on the economic growth of the selected sample of twenty-one OECD countries. The thesis is based on a theoretical model of cross-country regressions and a panel data technique methodology was followed. The results of the time-period 1998-2017, show a direct positive impact of FDI on GDP per capita growth, namely economic growth. Moreover, it was found a lack of complementarity between FDI inflows and human capital, and a negative dependency between FDI inflows and institutions such as private sector credit.

## Table of Contents

<b>1.</b>	<b>Introduction .....</b>	<b>1</b>
1.1	Background.....	1
1.1.1	Aim of the study .....	2
1.2	Foreign Direct Investment in OECD countries .....	3
1.2.1	Methodology.....	4
<b>2.</b>	<b>Theories .....</b>	<b>5</b>
2.1	OLI framework .....	5
2.2	Solow Swan Growth model .....	6
2.3	FDI and economic growth relation in theory .....	7
<b>3.</b>	<b>Literature Review.....</b>	<b>9</b>
3.1	Summary and hypotheses.....	11
<b>4.</b>	<b>Empirical specification.....</b>	<b>12</b>
4.1	Data description .....	14
4.2	Data limitation .....	15
4.3	Endogeneity problems: .....	16
4.4	Empirical Analysis.....	16
<b>5.</b>	<b>Results .....</b>	<b>18</b>
<b>6.</b>	<b>Discussion and Conclusion .....</b>	<b>22</b>
<b>7.</b>	<b>References .....</b>	<b>25</b>

## Figures

Figure I. Global FDI inflow between the years 1980-2017 .....	2
---	---

## Tables

Table 1: Descriptive summary of the statistics of the model variables .....	17
Table 2: Random effects estimation of logged GDP per capita growth .....	20
Table 3: Random effects estimation of logged GDP per capita growth .....	21

## Appendix

Appendix 1 .....	28
Appendix 2 .....	29
Appendix 3 .....	30
Appendix 4 .....	30
Appendix 5 .....	31

# 1. Introduction

## 1.1 Background

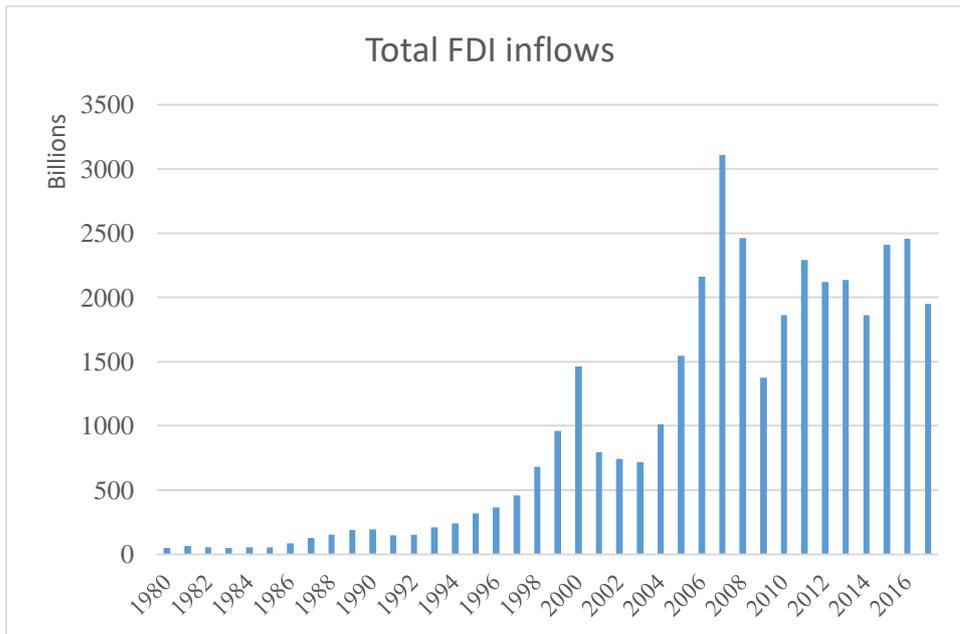
Foreign Direct Investment (FDI) is an essential factor of an open and dynamic international economic system and a leading development catalyst (World Bank, 2019). FDI refers to investment in an enterprise that is resident in a nation other than that of the direct investor. A long-term relationship is a crucial factor in FDI. Hence, the investment is made to secure enduring interest and control of the financial element, with an implied impact on the management of the enterprise. Some level of equity ownership is typically required to have some level of control in the enterprise. According to the World Bank, “ownership of 10 percent or more of the ordinary shares of voting stock” is a benchmark for determining the presence of FDI (World Bank, 2019).

Furthermore, basic forms of FDI inflows are usually classified as being horizontal, vertical and conglomerate as reported by the World Bank. A horizontal investment occurs when an investment is made to establish an enterprise that carries similar business operations as the parent enterprise in its home country. A vertical investment occurs when a parent company acquires interest or ownership in a foreign entity that carries different but related business operations to supply raw materials (or parts) necessary for the manufacture of its products. A conglomerate investment is when a foreign company makes a direct investment in an enterprise that operates unrelated business activities than its existing business in its home country. Since conglomerate investment involves the company entering into a new industry that it has no earlier experience, companies usually enter a joint venture agreement with an already existing enterprise (World Bank, 2019).

The geographical destination for FDI inflow is highly unequal. The bulk of FDI inflows between developed countries. As published in *World Investment Report 2018*, FDI inflows to developed economies peaked at 49.8 percent (share in world value) in 2018, followed by developing Asia with 33.3 percent, Latin America & the Caribbean with 10.6 percent, Africa with 2.9 percent and transition economies with 3.3 percent (UNCTAD, 2018)

FDI has grown at a phenomenal rate since the 1980s. As can be observed in *figure I*, global FDI inflow drastically increased from 51.464 billion world share value in 1980 to 1.95 trillion world share value in 2017. To put it differently, world FDI inflow increased 3689% over the past four decades.

*Figure I. Global FDI inflow between the years 1980-2017*



*Source: World Bank FDI inflows 1980-2017. Figure generated by authors.*

Even though there are many studies that investigated the relationship between foreign capital inflow and economic growth, there is still a gap in the literature we observed. The preponderance of research studies we observed focus on FDI effects regarding developing countries. Based on this, it is interesting to analyze the significance (effects) of FDI inflows specifically in The Organization for Economic Cooperation and Development countries (OECD), by considering appropriate determinants of FDI.

### **1.1.1 Aim of the study**

The aim of this study is to investigate the impact of (FDI) inflow on economic growth and development in OECD member countries. Moreover, this study attempts to elucidate relationships between FDI inflows, gross domestic production per capita

growth (GDP pc), and OECD country's absorptive capacity. To reach a well-rounded conclusion, the implications of the relationship between FDI and its economic contribution are both theoretically and empirically examined in the study.

Relevant literature, academic studies, databases, national statistics, and research works are used in the thesis. The study takes into account the economic (policy) structural differences as well as environmental reforms among OECD economies. Hence, the study aims to answer; *the effects of foreign direct investment inflows on economic growth in OECD countries*

## **1.2 Foreign Direct Investment in OECD countries**

The (OECD) is an organization that was created in 1961 for establishments and “governments to share experience and seek solutions” prevalent economic and social issues (OECD, 2019). As of today, there are 34-member (or adherents) economies in the OECD forum. The OECD acts as a representative and collaborates with its member countries to advocate for free market trade around the world. In practice, it promotes social and political policies to improve the welfare of people in general. *Table A1* in Appendix 1 shows the full list of the current member countries of the organization, joined dates, GDP (PPP) per capita between 1995 and 2017, and cumulative GDP per capita growth. The years are selected due to the data available for all the member countries.

Observing at the cumulative growth rate in *Table A1* over the period 1995 and 2017, the standout performers of GDP per capita have been the Baltic region countries; namely, Poland, Latvia, Estonia, Lithuania, and the Slovak Republic, succeeding to increase their GDP per capita triple times. It is noticeable that some countries grew the slowest such as Italy with only 6.61% GDP per capita increase over the period, followed by Greece and Japan with 15.64% and 20.36%, respectively. The rest of the states have increased their GDP per capita by 25% to 82%, while others almost tripled their GDP per capita. This remarkable gap could be due to the political instability in Central and Eastern European (CEE) states, comprising the countries that achieved the highest cumulative growth rates were under the command of the USSR (Soviet Union) in 1947-1991. These CEE countries faced a crucial challenge after the collapse of the Soviet

Union, which principally relied on inefficient centrally planned economies with very restricted international trade, in opposition to Western-style economic policies. Around the same period, FDI was peaking at a global scale, giving these economies proper characteristics to attract foreign investors seeking high investment returns. In other words, CEE nations were suitable modern economies to assess the impact of FDI on economic growth (Lipsey, 2000).

### **1.2.1 Methodology**

The aim of the study is to examine the effect of FDI on economic growth in the OECD member economies. The main objective remains to empirically examine the relationship between FDI and economic growth. To draw a balanced judgment, the study reviews a comprehensive analytical and empirical literature that carefully examines the subject in interest. This research focuses on a measurable social trend, for this reason, a quantitative approach is preferred to conveniently evaluate the impacts of FDI on economic growth. Hence, data were collected and statistically analyzed.

All data in the research, unless otherwise clearly stated, relies on databases formulated by OECD '*Directorate for Financial and Enterprise Affairs*'. In instances where data is missing in the OECD tabulated data tables, the official FDI statistics reported by OECD members are used. Moreover, the additional scientific data used are collected from official member governments and non-government organizations such as the World Bank and the United Nations.

## **2. Theories**

For us to understand the results of the Empirical analysis of FDI's effect on economic growth within OECD countries, we need to establish theories with which we can later use to grasp our results. In the coming section, we will present what Theoretical Framework we will use in our paper, to begin with, OLI framework will be presented to get a grasp of how Multinational enterprise (MNE) decide on FDI. Moreover, the Neoclassical Solow-Swan Growth Model will be considered for economic growth theory.

### **2.1 OLI framework**

OLI stands for "ownership", "location" and "Internalization", was developed by John Dunning. The OLI framework has provided economics with an interesting way of thinking about MNE's. The model does not provide a quantitative way of measuring data, however; the framework provides a helpful way of categorizing recent empirical and analytical research on FDI (Neary, 2009, pp1-2).

The OLI model of FDI can be described as three sources of potential advantages that can support enterprises decisions to expand into an MNE and FDI operations. Ownership advantages play a big role in determining the advantages that certain MENS can enjoy, the idea is that firms possess assets which can be used in the production of different locations in the business, such as property rights, product development, managerial structures, and marketing. Which all are very different parts of the business but categorized together as headquarter service. For an MNE to decide if they want to engage with FDI operations, they need to figure out their productivity advantages by investing in a sunk cost to analyze productivity on its owned assets. Firms are then categorized as low, medium or high productivity firms. Where low-productivity firms supply the domestic market, medium-productivity firms engage in exporting and the High-productivity firms choose to pay the higher fixed cost involved when investing in FDI operations. (Neary, 2009, pp 1-3).

Location advantages focus lies in where the MNE decides to locate and the advantages their location yields. Horizontal FDI is where a firm decides to locate its business

abroad to strengthen its access to consumers in the host country. And in its most simple way, tries to replicate domestic production facilities in the host country's market. The motive for horizontal FDI lies in the proximity advantages granted by having a local HQ. However, this comes at the expense of losing the benefit of concentrated production in the domestic market. The Vertical motivator for FDI has different determinants and implications for the MNEs decisions on FDI. Now, instead of focusing on the foreign market with FDI, the focus is to serve its home market in a more effective way by moving production facilities abroad to cheaper foreign locations. The decider for vertical FDI lies between the gains from offshoring production and having concentrated production in the domestic market. Also explained by Neary, recent trends favor horizontal motive for MNEs over the vertical motive. With a reason being that the bigger part of FDI movement is between high-income countries with similar wage costs (Neary, 2009, pp 1-6).

Internalization is the last point of Dunning's OLI framework. Internalization advantages observe how MNE's decide to operate in a foreign market. In addition, explaining why certain operations are conducted within the company and why other projects are arms-length transactions. More efficient firms with headquarters services should implement internalization while less efficient firms should let suppliers remain as a separate legal entity from the MNE (arms-length trade) (Neary, 2009, pp 1-9).

## **2.2 Solow Swan Growth model**

The Solow-Swan growth model, developed from the neoclassical framework, explains economic growth primarily by the accumulation of physical capital and labor. In addition to this, all other sources of economic growth are associated with technological progress, which is not explained by the neoclassical growth models and thus often referred to as exogenous technological progress (Neuhaus, 2006).

FDI will affect the host country that receives FDI in different ways. First, the investment of foreign assets in the host country will contribute to the domestic capital stock growing, affecting economic growth (Neuhaus, 2006). In addition, as explained in the OLI framework, FDI is carried out by MNE's that are at the cutting edge of research

and development (R&D) advancements (Neary, 2009). Thus, applying the most lucrative and advanced technology which can foster technological progress in the host country (Neuhaus, 2006).

In general terms, the positive effects of the accumulation of inputs will fade out in the long run. However, researchers such as Romer try to explain factors of technological growth that can lead to permanent growth of per capita output. The idea is that the knowledge acquired alongside the quality of the factor inputs result in endogenous technological progress (Romer 1990). In the Solow-Swan framework, this only happens as capital widening, increasing existing capital goods. However, Romer (1990) suggests that the capital stock can experience technological advancements in the form of quality improvements because of extensive R&D and innovation. Altogether, capital widening and endogenous technological advancement of capital stock lead to economic growth (Neuhaus, 2006; Romer, 1990).

### **2.3 FDI and economic growth relation in theory**

In the Solow-Swan model, FDI is considered as an addition to the accumulation of the capital stock, an input of production. In theory domestic and foreign capital have no significant difference in the effect on growth; however, since FDI affects technological progress, the impact on growth should be longer-lasting and more visible. A model of knowledge spillovers might be better to predict FDI inflow effects (Neuhaus, 2006). Before exploring knowledge spillovers, FDI's main transmission channels to economic growth will be discussed.

Firstly, direct transmission. Greenfield investment is when production in the host country is set up and the company directly involves its production technology on site. Moreover, since FDI is generally carried out by MNE's (as we established earlier in the OIL framework) that have the most advanced technologies as a result of extensive research and development spending. FDI can increase the quality and variety of goods available but also the physical amount of capital stock (Neuhaus, 2006).

Secondly, indirect transmission. When ownership participation causes an indirect shift, due to labor training or/and skill acquisition to increase management expertise and production knowledge. Which can result in a higher quality of goods produced. However, the knowledge transferred to the firm is, of course, smaller in this case than in the case of direct transmission (Neuhaus, 2006).

Thirdly, knowledge spillovers, with the presence of foreign advanced MNE's on the domestic market, domestic firms will have it easier to adopt new technologies to improve their operations. The new knowledge can spread through new advanced R&D and human capital spillovers. This third transmission channel can be called second-round transmission (Neuhaus, 2006).

Romer (1993) developed the idea behind the last transmission channel, second-round transmission, in the endogenous growth framework. He suggested that the biggest obstacle for developing economies to catch up to developed economies is the gap in knowledge and not physical capital. Romer (1993) explains that the advantage of ideas are generated with the increased efforts in R&D investment resulting in blueprints for improved production processes or products. These blueprints being used in the production of final goods, productivity levels rise.

Kokko (1996) argues that with the emergence of knowledge spillovers, there are no automatic effects on FDI, but rather under certain conditions and not in every industry. Industries with large economies of scale or highly differentiating products have a lower likelihood of positive knowledge spillovers. Economies of scale may cause crowding out local firms from the domestic market by foreign owned MNE's. While high differentiation suggests that foreign and local companies use different technology. Furthermore, Kokko (1996) explains that knowledge spillovers are greatly determined by market competition. A highly competitive market forces local firms to adapt and learn the new technologies to advance their production efficiency and competitiveness. However, with an insignificant gap between domestic and foreign firms' production, knowledge spillovers are less likely. Finally, knowledge spillovers may not occur at all if foreign MNE's FDI operations at locations where domestic firms do not share the

same market and therefore technology and production greatly differ. This helps to explain why knowledge spillovers do not appear in many cases (Kokko, 1996).

### **3. Literature Review**

Foreign capital has become a significant component in any modern economy. The importance of foreign direct capital inflows for economic development embarked extensive research and debate within economists. Economists argue that FDI managed by MNEs inherently benefits domestic firms by an increase in both output and income. A study published by Brooks and Sumulong (2003) carefully analyses the positive impacts of FDI in host economies on the stimulation of economic growth. The study points out that technology and knowledge spillovers from FDI are one of the main beneficiaries to domestic industries as mentioned earlier. MNE's are notably larger than local firms, whether measured in terms of market sales or employment. It follows that MNEs influence in *Research and Development* (R&D) activities outweigh their domestic counterparts. Hence, foreign firms introduce superior managerial technology, new or improved products (or services), more efficient logistical processes and significantly advanced marketing methods into their local affiliates and subsidiaries. Furthermore, foreign firms provide employee training programs which contribute to higher labor productivity in host economies.

A study conducted by Blomström and Kokko (1998) which is largely consistent with the study by Brooks and Sumulong (2003), reveals that FDI carried out by MNE's encourages market efficiency through competition in both local and international markets. The entry of competitive foreign firms provides improved products or services for lower prices, which in turn yields enough incentive for domestic firms to enhance their products or services, and lower prices in order for them to stay in business. The presence of foreign firms in host countries distributes positive spillover through channels such as 'watch and imitation'. Domestic firms simply watch and imitate their competitive foreign counterparts, adopt new technologies faster, innovate managerial structures and engage R&D activities (Blomström and Kokko 1998).

With regard to the positive effects of FDI on host countries, empirical studies find a positive relationship between unemployment levels and the influx of foreign investments. When the foreign firms set up production facilities in the recipient country, the firm directly hires local workers to engage in production activities. As discussed in Moran (2006), foreign capital accumulation positively affects host countries' labor market, labor productivity and labor skills. Similarly, Jude and Silaghi (2015) argue that FDI positively contributes to labor market specifically in advanced economies through the creation of new jobs and the investment of less-labor intensive technologies. A cross-country study carried out by Hijzen et. al. (2003) in Germany and the United Kingdom finds out MNE's entrance is associated with the creation of more new workplaces, although this effect is also associated with wage inequality especially within low-skilled workers. Bandick and Karpaty (2011) find, using Swedish manufacturing labor data that FDI reduces unemployment in the country, and the effect is even stronger for skilled labor. Overall, the studies suggest that although FDI may decrease unemployment in the short-run in advanced economies by introducing labor-saving methods, it creates a steady employment growth rate by increasing labor productivity.

Another interesting positive impact associated with FDI is the export expansion in host economies. MNE's operate economies of scale in marketing and production, hence higher ability to gain access and compete in international markets. A study by Stehrer and Woerz (2009) uses OECD economies between the years 1980-2000 to examine the impact of FDI inflow on export promotion. According to the study, "FDI inflow promotes output growth" and a significant catalyst to export expansion. In a similar fashion, Lane and Lion (2005) published an empirical study based on a panel of 84 OECD and non-OECD countries to investigate the effect of FDI on economic growth, specifically export-led output increases. The study also confirms the positive economic growth effect of FDI inflow and higher productivity. In addition, the authors demonstrate in the study that a ten percent increase in FDI inflow reflects at least a four percent increase in gross domestic production (GDP).

Contrary to the overwhelming belief of the positive effects of FDI on economic growth and productivity in OECD economies, there is a significant amount of literature

that demonstrate the negative effects. FDI inflows and the presence of foreign firms in a host economy distorts competition. This negative competition could be due to; a) vigorous competition from foreign MNE's may force domestic firms to produce on less-efficient scale of production (produce low efficient goods or services) which eventually compel them to 'crowd out', and b) foreign firms have access to abundant financial resources in comparison to domestic firms which eventually imposes local firms to crowd out (Agosin and Mayer, 2000). As cited earlier, foreign firms are larger and operate lower marginal costs which put them in a better position to carry out R&D, hence lower profits discourage local firms to undertake R&D, as a result, lower long-term domestic productivity. A study by Mencinger (2003) precisely investigates the relationship between FDI inward and GDP in OECD countries, specifically CEE members. The author finds a negative causal relationship between FDI and economic growth. He explains this by arguing that the main entry mode of foreign firms in developed economies is by takeovers, which defeats local competitors due to their inability to compete with bigger foreign enterprises that enjoy economies of scale.

### **3.1 Summary and hypotheses**

To surmise the review of FDI and economic growth study, there are many factors that can explain FDI and economic growths relation, with a large amount of varying determinism and factors that have been seen influential in different periods. The Solow-Swan growth model focused on the accumulation of physical capital and labor to explain growth while viewing technological progress as exogenous. The endogenous growth theories argues that capital cannot only be increased but also accumulated through an increasing variety of capital goods and quality improvements that drive new technological progression.

The literature review has shown that FDI used to be treated mainly as an addition to capital accumulation, nowadays, however, FDI has been treated as a significant contributor to the rate of technological progress, with capital accumulation effects vary. The benefits of FDI on economic growth will be a direct transmission. The direct transmission increases the physical capital stock and its quality, but also the variety of goods supplied. Indirect transmission, increasing managers' knowledge and expertise to effectively increase quality. Second-round transmission through increased R&D efforts

and skilled labor spillovers, however, limited depending on the industry, competition and productivity gaps. And knowledge spillovers.

The drawbacks of FDI on economic growth will involve the crowding out from domestic investment. Thus, distorting the natural development of domestic regions and industries, but also reducing the availability for domestic firms' sources of finance. FDI investment will also cause an increase in imports, which can cause a disturbance in the balance of payments.

With the literary review and theories as a base, we establish the hypothesis as follows:

*Hypothesis 1: FDI inflow is anticipated to have a positive, direct effect on the rate of GDP growth per capita in the sample of OECD member countries, all else equal*

*Hypothesis 2: Interaction between FDI and absorptive-capacity variables are anticipated to have a positive, direct effect on the rate of GDP growth per capita, all else equal*

It is interesting to mention that 'absorptive capacity' refers to a country's ability to recognize the value of FDI and assimilate it into economic development.

#### **4. Empirical specification**

The study of country economic growth determinants fundamentally requires a description of a statistical model of cross-country growth variations, which permits to distinguish the effects on the economic growth of different included variables. Such models are commonly based on the widely known Neoclassical Growth Theory.

An originative study published by Mankiw, Romer and Weil (MRW) (1992) which is seen as a classic contribution to the discussion of economic growth, argues that models such as the Solow growth model fail to take account cross-country differences. As mentioned earlier, the neoclassical theory of Solow growth model attempts to explain

long-run economic growth by indicating constant returns to scale, changes in the population growth rates, exogenous growth rates of technology and the savings rate. This model proved to be convenient at explaining an individual country's long-run rates but was considered premature at accounting cross-country differences. MRW (1992) therefore augmented the Solow growth model by adding accumulation of human capital and physical capital may better examine cross-country variations. They derived a model that complies with the traditional Cobb-Douglas production function,

$$Y_{i,t} = K_{i,t}^{\alpha} H_{i,t}^{\beta} (A_{i,t}L_{i,t})^{1-\alpha-\beta} \quad (1)$$

where the notation is standard; the economy  $i$  at time  $t$  represents  $Y_{i,t}$  output,  $K_{i,t}^{\alpha}$  stands for capital,  $H_{i,t}^{\beta}$  for human capital, and  $A_{i,t}$  for level of technology. MRW adds that technology cannot be considered the same for all countries but a rather country-specific determinant of growth. Similar studies that focus on economic growth and FDI such as Lucas (1988), among others, confirm the findings of MRW back the augmented Solow growth model.

In like manner, to analyze the empirical effect of FDI on economic growth in OECD countries, we have to specify a statistical regression model. We adapt an empirical estimation model specified by Borensztein et al (1998), which can be presented as:

$$y_{i,t} = \beta_1 + \beta_2 Y_{i,o} + \beta_3 FDI_{i,t} + \beta_4 FDI_{i,t} * H_{i,t} + \beta_5 H_{i,t} + \beta_6 A_{i,t} + \varepsilon_{i,t} \quad (2)$$

Based on the above model (2), the basic dependent variable in the model is the rate of real GDP per capita ( $y_{i,t}$ ). The explanatory variables include; initial GDP per capita ( $Y_{i,o}$ ) as the start of the period, the accumulation of human capital ( $H_{i,t}$ ), and a set of 'core' explanatory variables ( $A_{i,t}$ ) that affect economic growth. Foreign direct investment ( $FDI_{i,t}$ ) is the explanatory variable of main interest, which is measured as a share of GDP and is related to the fraction of output produced by foreign firms.

In addition, several previous studies find that a certain significance level of human capital is necessary for FDI on economic growth; hence, we add an interactive term of ( $FDI_{i,t} * H_{i,t}$ ). As argued by Borensztein et al (1998), this interactive term captures the absorptive capacity of the host country. In other words, it examines if there is any complementarity between FDI and educational attainment.

The core explanatory variables are comprised in ( $A_{i,t}$ ) vector and include the control and policy variables that are commonly used as determinants in cross-country empirical studies. These variables include population growth rate, government consumption, inflation rate, a measure of political rights, the degree of trade openness, and political instability. A proxy for the development for the financial system and a measure of the quality of institutions are also included in the explanatory variable

#### **4.1 Data description**

There are multiple sources for data regarding FDI. The macroeconomic data are largely collected from the World Bank, UNCTAD and OECD databases. These sources are extremely extensive and are widely used in similar empirical analyses. Twenty-one OECD member countries are included in the data estimation; which are Austria, Belgium, Canada, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Netherland, Norway, Poland, Portugal, Slovakia, Spain, Sweden, UK, and the US. The rest of the member states are not included on the grounds of data availability issues. The tested timeframe will be from 1998 to 2017, a period where most of the interested data is available.

FDI variables are obtained from the OECD database (2019). It is commonly measured in two ways; net FDI inflows or stocks. Net FDI inflows seem more appropriate and most commonly used in other studies because we are interested in the effects of FDI in the host country. Data for other explanatory variables that have been proved to affect FDI, such as population growth, inflation, trade openness, and government expenditures are also taken from the OECD database. Population growth refers to the annual population growth rate, inflation rate refers to the consumer price index (CPI) as in 2010, trade openness refers to the export and import ratio relative to GDP, and government expenditure refers to all government expenditure as a percentage of GDP.

Human capital variable is a significant measure correlated with economic growth. There are no available data for human capital per se, however, it is commonly used average years of schooling (education) as one proxy for human capital. High educational attainment is correlated with growth and high levels of labor productivity. The variable

of education level based on average years of schooling, namely higher-level education, is adapted from Penn World Table (Feenstra et al., 2019).

It is difficult to construct correct and comprehensive measures of the financial system services for a cross-section of countries over twenty years; hence, some of our sample countries were restricted by the availability of liquid liabilities which many reviewed studies use. However, following King and Levine (1993), we include a measure of private credit sector. This indicator measures the financial intermediary to the private sector relative to GDP. It also implies that private credit sector shows the capacity local firms can investment domestically such as in new technologies. The data regarding this indicator is taken from the OECD database.

Institutions are found to be effective catalyst and strongly correlated to economic growth over time. Therefore, institutions are important determinant of long-term economic development and act as an absorptive capacity for FDI. We, therefore, try to include a proxy for institutional development. This indicator is called ‘Index of Economic freedom’ and is taken from the Heritage Foundation (2019). The index covers four crucial of economic prosperity over which governments usually exercise policy jurisdiction; rule of law, government size, regulatory efficiency, and open markets. In estimating these four broad categories, the index uses 12 qualitative and quantitative components, the overall score being derived by averaging the 12<sup>1</sup> factors with a scale of 0 to 100.

#### **4.2 Data limitation**

Despite its merits, this study suffers from drawbacks and limitations, mainly owing to a few problems inherent in the use of cross-sectional panel data and the unavailability of data. Unlike other reviewed studies, this research specifically focuses on OECD member states. However, not all member states have observable data for the selected timespan in the interested variables, which resulted in the exclusion of several countries in our sample. For a country to be applicable in our sample it needed to have all the

---

<sup>1</sup> These 12 scores are:” property rights, government spending, judicial effectiveness, government spending, tax burden, fiscal health, business freedom, labor freedom, monetary freedom, trade freedom, investment and financial freedoms.” (Heritage Foundation, 2019)

variables throughout the twenty-year timespan. For instance, Chile does not have reported data for inflation rates, government consumption and trade openness which has been proved to be important for the effects of FDI. Hence, only 21 countries are feasible for our study. In addition, the inclusion of many variables in the model, considering the limited timespan, may weaken the estimates of the model.

### **4.3 Endogeneity problems:**

It should be noted that conducting cross-country regressions might exhibit several endogeneity shortcomings. This is due to the causality direction between FDI and economic growth rate, which is one of the main issues economists' face, since economic growth rate emerges from FDI inflows and this brings up the question whether economic growth rises due to capital inflows or the other way around. Hence, a correlation can exist between the FDI variable and the error term.

A commonly used remedy for the endogenous shortcomings is the inclusion of instrumental variables. It is important that these instrumental variables are only correlated with the endogenous variable and not the error term. Therefore, we have decided to include the lagged FDI and logarithmic of initial GDP.

### **4.4 Empirical Analysis**

The goal of our empirical verification is to analyze the effects of FDI on the rate of GDP growth in our sample of OECD countries. As we mentioned above in the hypotheses, we are expecting to find that FDI have a positive direct effect on economic growth in the sample countries. For the estimate values to be statistically significant in the analysis, they need to demonstrate P-values less than 5 percent.

Generally, panel data estimation is broadly used to evaluate economic growth models, specifically those that estimate FDI impacts on economic growth. After running several regressions with pooled OLS, random and fixed methods, it has become obvious to perform *Hausman's Test (for Fixed effects vs Random effects)* and *Breusch & Pagan*

*Lagrange Multiplier Test (for Pooled OLS vs Random effects)* to decide the most suitable method for the regression model. More of this is explained in the result section.

Below we provide a descriptive summary of the statistics in *Table 1* between 1998 and 2017. As can be observed from the table, there is substantial variation in the variable of main interest, i.e. FDI variable, as well as growth rates. FDI inflows is defined as financial inflows that consist of “equity transactions, reinvestment of earnings, and intercompany debt transactions” (OECD, 2019). Hence, FDI inflow values can be negative if these three components are not positively balanced.

Human capital variable seems to be evenly distributed which were rather expected (because OECD countries have similar average years of schooling). At the same time, population growth rate demonstrates negative minimum value, which suggests that some of these countries experience population loss.

*Table 1: Descriptive summary of the statistics for the model variables*

<i>Variables</i>	<i>Obs</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Minimum</i>	<i>Maximum</i>
GDP pc growth rate (in %)	420	1.6733929	2.7749102	-14.560	10.924
FDI (in %)	420	3.552781	4.8538549	-12.004	46.001
School (in years)	420	3.2390333	0.3413061	2.175	3.794
Population growth (in %)	420	0.343931	0.4484134	-0.713	1.624
CPI (in %)	420	121.04594	19.482585	80.724	197.747
Gov. Expenditure (in %)	420	23.362262	9.5839312	4.000	55.866
Trade Openness (in %)	420	88.353717	38.892562	22.150	189.181
Economic Freedom (in %)	420	69.182143	6.1991793	53.200	81.600
Private Credit (in %)	420	190.40369	59.120331	53.920	320.770

## 5. Results

The output that we will draw our results from is the panel cross-section random effects output in *Table 2*, which highlights the overall FDI effects on economic growth. The third estimation of the model includes the general growth model variables as mentioned in Model (2). It also includes the logged value of GDP per capita growth as the dependent variable. In the model, we check for the effects of FDI, human capital which we used average years of schooling as a proxy, inflation rate which we used consumer price index as a proxy, government expenditure, the logged value for trade openness, economic freedom, private sector credit, and the interactive term between FDI and school.

For us to determine which method we would use for the main model, we used a Hausman test (*Table A3* in appendix 3) and a Breusch and Pagan Lagrange Multiplier Test (*Table A4* in appendix 4) to find the model that was best suited to our data. The results of the Hausman test showed a chi-square statistic of 20.1046 and a P-value of 0.0099, hence, the null hypothesis (Random effects is preferred) can be rejected. The fixed effects model is preferred over the the random effects. In appendix 2, correlation matrix *Table A2*, we observe a significant correlation between the variables ‘Initial GDP’, ‘Population growth’ and ‘Private credit’. An estimation was performed for these variables to see which variable explains GDP per capita growth better. Based on the outcome, we decided to remove ‘Initial GDP’ variable as it’s highly correlated with the two other variables and shows the lowest R-square value. Similarly, the Breusch and Pagan Lagrange Multiplier Test results show a P-value  $< 0.05$ , meaning that we will have to reject the null hypothesis that OLS is preferred and accept the alternative hypothesis that the random effects method is preferred. Results of the random effects are shown in *Table A5* and *Table A6* in appendix 5.

In *Table 2*, estimations 2.1-2.3, the significance of each of the independent variables and their respective coefficients are presented. Effects on logged GDP per capita growth. The first thing to note is that school, population growth, and the interactive term between FDI and school are all insignificant with p-values  $> 0.1$ , thus invalidating any of the results received from those variables.

Inflation, government expenditure, trade openness and private sector credit are all significant at the 1% level with P-values  $< 0.01$ . With inflation, government expenditure and private sector credits all have negative coefficients explaining logged GDP per capita growth with a negative effect while trade openness, with a positive coefficient, affects the dependent variable in a positive way. The remaining variables, economic freedom and FDI, are both significant at the 5% level with P-values  $< 0.05$ . Both economic freedom and FDI show positive values on their respective coefficients, resulting in a significant positive effect on GDP per capita growth, which is consistent with the prediction made in the hypothesis. In fact, estimation 2.3 indicates that as 1 percent increase in FDI inflow would contribute to ca. 2 percent increase on economic growth.

To accurately get the results presented in the previous piece estimated in 2.3, estimations 2.1 and 2.2 was created for us to see how FDI's significance and impact on GDP per capita growth changes when adding additional variables. The results show that the coefficients impact stays significant throughout the tests and the positive impact is also consistent.

Table 2: Fixed effects estimation of logged GDP per capita growth

Variables	(2.1)	(2.2)	(2.3)
FDI	0.0206*** (0.0103)	0.01432** (0.0010)	0.0185** (0.0105)
School (Human capital)	-1.7316* (0.41279)	-1.0328 (1.0389)	-1.6590 (1.0724)
Pop. Growth		-0.3560 *** (0.1707)	-0.0206 (0.1683)
CPI (Inflation)		-0.0119** (0.0062)	-0.0206*** (0.0067)
Government Spending		-0.1869*** (0.0365)	-0.1365*** (0.0400)
Trade Openness			0.0095** (0.0050)
Economic Freedom			0.0070** (0.0143)
Private Credit			-0.0050*** (0.0026)
FDI*School			0.0039 (0.0510)
R-squared	0.3482	0.4133	0.4302

Standard errors in parentheses

\*\*\*p<0.01, \*\*p<0.05 and \*p<0.1

Table 3 was created to check the robustness of the main estimates results in 2.3. A robustness test is done to see if the coefficients change when adding additional indicators of FDI, in our case a lag, if coefficients stay consistent with previous result a model is considered to be robust. Our model estimations are therefore robust as FDI shows positive significance in estimation 3.4.

Table 3: Fixed effects estimation of logged GDP per capita growth with lagged FDI variable

Variables	(3.1)	(3.2)	(3.3)	(3.4)
FDI	0.0206*** (0.0103)	0.01432** (0.0010)	0.0185** (0.0105)	0.0272** (0.0098)
School (Human capital)	-1.7316* (0.41279)	-1.0328 (1.0389)	-1.6590 (1.0724)	-1.8505 (1.1520)
Pop. Growth		-0.3560 *** (0.1707)	-0.0206 (0.1683)	-0.3104 (0.1806)
CPI (Inflation)		-0.0119** (0.0062)	-0.0206*** (0.0067)	-0.0235*** (0.0072)
Gov. Spending		-0.1869*** (0.0365)	-0.1365*** (0.0400)	-0.1466*** (0.0028)
Trade Openness			0.0095** (0.0050)	0.0109** (0.0056)
Economic Freedom			0.0070** (0.0143)	0.0078** (0.0153)
Private Credit			-0.0050*** (0.0026)	-0.0046* (0.0028)
FDI*School			0.0039 (0.0510)	0.0033 (0.0527)
Lagged FDI				0.0191* (-1.7445)
R-squared	0.3482	0.4133	0.4302	0.4335

Standard errors in parentheses

\*\*\*p<0.01, \*\*p<0.05 and \*p<0.1

## 6. Discussion and Conclusion

The aim of our empirical study is to estimate the effects of FDI on economic growth. In particular, as mentioned earlier, we test whether OECD countries actually benefit from foreign capital accumulation.

All the regression results indicate a statistically significant positive direct effect of FDI on economic growth in OECD countries. The findings are in accordance with our hypothesis and a considerable part of the literature. Some important absorptive capacities are highly insignificant in our findings such as human capital, which is against the findings in previous literature. A study by Borensztein et al (1998), finds strong positive impact of human capital on economic growth. Furthermore, we added an interaction term between FDI and human capital as included in model (2) and can be observed in specification 2.3 in *Table 2*. The coefficient of the interaction term is positive but statistically insignificant, which again goes against the study of Borensztein et al (1998). Hence, our results do not demonstrate any complementarity or technological transfer between FDI and human capital.

Among the institutional variables, both Economic freedom and Private sector credit are statistically significant in all the specifications. Economic freedom has a positive coefficient which is typically expected. As argued earlier, Economic freedom is not only regarded economic growth determinant, but also an efficient FDI-absorptive capacity and our results show this influence. However, private sector credit demonstrates negative coefficient. This is contrary to the assumptions of literature that emphasize on the importance of financial institutions. Nonetheless, our results are interesting and more research is needed to investigate how exactly private credit contributes to economic growth.

Although the empirical evaluation of the FDI shows significant impact on economic growth, we do not know which mode of entry FDI contributes more on economic growth. As mentioned earlier, the two main FDI entry modes are Greenfield and M&A investments; our results do not indicate which entry mode positively affect economic growth. Hence, further research is encouraged.

It is interesting to mention that some caution is required in the interpretation of the size of FDI impact on economic growth. Our data of FDI inflow measures the flow of foreign capital investments, as a percentage of the GDP. This value, however, only includes the resources invested by MNE's because some of the investment may be paid through equity or debt issues in the domestic market. Therefore, the FDI measure may underestimate the total value of the variable. However, this bias or shortcoming is uniform across all the sample countries over the estimated timespan, which follows that our qualitative results are not significantly affected.

Furthermore, an important part to mention is the insignificance that we observed in some variables such as population growth. The problem might lay in the correlation between this variable and the other variables in the estimation. Population growth rate and initial GDP have a 0.65 correlation value as displayed in the correlation matrix in appendix 2. The problem might also be caused by the fact that the study was done on 21 countries over 20 years.

As explained, the study faced certain limitations and we would encourage researchers to broaden their investigations in the specific field of FDI and economic growth in OECD countries. A deeper study including more of the OECD countries and covering additional years could better establish the long-term effect of FDI on economic growth.

The findings of this study are significant and suggest some directions for policymaking in OECD countries. There are complex protectionist trade policies in place in OECD countries that are aimed at protecting employee layoffs and domestic property ownership. These policies may jeopardize or restrict the full benefits of foreign capital inflow since FDI is one of the most efficient means to get access to domestic markets by companies that would otherwise have been exporters to the OECD economies. Therefore, it is important to develop objective policies that stimulate FDI inflow as an efficient source of economic development.

To conclude, this study was conducted to observe the impact of FDI inflows on OECD countries' economic growth. The literary review provided conflicting prediction, however, a positive impact was reasonable to expect. Relevant economic growth variables were determined, and the model was constructed. The empirical results were gathered using panel data regressed with a random effects method. As the null

hypothesis predicted, FDI's was observed to have a significant positive impact on OECD countries' economic growth.

## 7. References

Agosin, M. R. Mayer (2000). Foreign Investment in Developing Countries—Does it Crowd in Domestic Investment. In United Nations (UN) Conference on Trade and Development (UNCTAD): Available at [http://www.unctad.org/en/docs/dp\\_](http://www.unctad.org/en/docs/dp_)

Blomström, M. and Kokko. A (1998). Multinational corporations and spillovers: “Journal of economic surveys 12”, p247-227

Brooks, D. and Sumulong (2003). Foreign direct investment in developing Asia: Trends, effects and likely issues for the forthcoming WTO negotiations.

Borensztein, Eduardo; De Gregorio, Jose and Lee, Jong-Wha (1998) “How does foreign direct investment affect economic growth?”, *Journal of International Economics*, Vol. 45, p115-135

Feenstra, R. C., Inklaar R. Timmer M. (2019): Penn World Table 8.2  
<https://www.rug.nl/ggdc/productivity/pwt/>

Jude, C., and Pop Silaghi, M. I. (2015). Employment effects of foreign direct investment. New evidence from Central and Eastern European countries. *SSRN Electronic Journal*. Available at  
<https://www.sciencedirect.com/science/article/pii/S2110701715000141>

Gregory, M. N., Romer, D., and Weil, D. N. (1992). A contribution to the empirics of economic growth. *Quarterly Journal of Economics*, Vol.107, p410-440.

Heritage Foundation. (2019) Index of economic freedom: Available at  
<https://www.heritage.org/index/>

Hijzen, P. S. Martins, T. Schank, and R. Upward. Foreign-owned firms around the world: A comparative analysis of wages and employment at the micro-level. *European Economic Review*, Vol.60:170188, 2013.]

King, R., Levine, R., 1993. Finance and growth: Schumpeter might be right. *Quarterly Journal of Economics*, Vol.108, p717–738.

Kokko, A. (1996). Productivity spillovers from competition between local firms and foreign affiliates, *Journal of International Development*, vol.8, p517-530.

Lane, P. R., and Milesi-Ferretti, G. M. (2007). The External Wealth of Nations Mark II: Revised and Extended Estimates of Foreign Assets and Liabilities, 1970–2004. *Journal of International Economics*, Vol.73, p223-250.

Lipsev, R. E. (2000). Measuring the impacts of FDI in Central and Eastern Europe. National Bureau of Economic Research.

Mencinger, J. (2003). Does foreign direct investment always enhance economic growth?. *Kyklos*, Vol.58, p485-509.

Neary, J. Peter. 2009, “Foreign Direct Investment: The OLI Framework”: Available at [\*the Princeton Encyclopedia of the World Economy\*](#), p1-13.

Neto, Paula; Brandão, António and Cerqueira, António (2010) “The Impact of FDI, Cross-Border Mergers and Acquisitions, and Greenfield Investments on Economic Growth”, *The IUP Journal of Business and Strategy*, Vol.7, No. 4, p24-44

Neuhaus, M. (2006). The impact of FDI on economic growth: an analysis for the transition countries of Central and Eastern Europe. Springer Science & Business Media.

R. Bandick and P. Karpaty. Employment effects of foreign acquisition. *International Review of Economics & Finance*, Vol.20 No.2

Rees, G. Wyn. *International Politics in Europe: The New Agenda*, Routledge, 1993: p6-5

Romer, P.M. (1990). Endogenous technological change, *Journal of Political Economy*, vol. 98,

Romer, P.M. (1993). Idea gaps and object gaps in economic development, *Journal of Monetary Economics*, vol. 32, no. 3,

Stehrer, R., and Woerz, J. (2009). ‘Attract FDI!’ - A Universal Golden Rule? Empirical Evidence for OECD and Selected non-OECD Countries. *European Journal of Development Research*, Vol.21, No.1, p95-111.

UNCTAD (2019), *World Investment Report 2018: Investment and New Industrial policies*, UN, New York: Available at <https://doi.org/10.18356/ebb78749-en>.

OECD (2019), Foreign direct investment inflows: Available at <https://data.oecd.org/fdi/fdi-flows.htm>

OECD (2019), Foreign direct investment inflows: Available at <https://data.oecd.org/trade/trade-in-goods-and-services.htm>

OECD (2019), General government spending: Available at <https://data.oecd.org/gga/general-government-spending.htm>

OECD (2019), Population growth rate: Available at <https://data.oecd.org/pop/population.htm>

OECD (2019), Private sector credit: Available at <https://stats.oecd.org/index.aspx?queryid=34814>

World Bank. (2019). Foreign direct investment: Available at <https://data.worldbank.org/indicator/bx.klt.dinv.cd.wd>

## Appendix 1

*Table A1: Comparison of GDP (PPP) per capita values in 1980 and 2017. Data collected from OECD database (2019). Unit of measure is US dollar. The authors calculated cumulative GDP pc growth rate.*

<b>Country (year joined)</b>	<b>GDP pc 1995</b>	<b>GDP pc 2017</b>	<b>Cumulative growth rate</b>
Australia (1971)	31 902.9	46 248.0	44.96%
Austria (1961)	32 754.6	44 109.2	34.67%
Belgium (1961)	31 792.1	41 789,0	31.44%
Canada (1961)	31 737,8	43 274,1	36.35%
Chile (2010)	11 274,6	15 346,5	36.12%
Czech Republic (1995)	18 798,4	31 798,0	69.15%
Denmark (1961)	36 415,9	46 180,4	26.81%
Estonia (2010)	10 697,3	28 429,8	165.77%
Finland (1969)	26 827,1	39 671,8	47.88%
France (1961)	29 969,2	37 843,0	26.27%
Germany (1961)	32 768,3	44 066,2	34.48%
Greece (1961)	20 819,6	24 076,7	15.64%
Hungary (1996)	14 731,4	25 817,2	75.25%
Iceland (1961)	27 578,8	46 911,3	70.10%
Ireland (1961)	25 814,4	66 362,5	157.08%
Israel (2010)	22 572,8	32 442,5	43.72%
Italy (1962)	32 059,4	34 178,5	6.61%
Japan (1964)	31 734,2	38 195,7	20.36%
Korea (1996)	16 573,6	35 968,1	117.02%
Latvia (2016)	7 969,1	24 092,4	202.32%
Lithuania (2018)	8 922,2	28 288,4	217.06%
Luxembourg (1961)	60 858,6	86 788,1	42.61%
Mexico (1994)	12 323,3	17 122,5	38.94%
Netherlands (1961)	34 390,8	47 973,2	39.49%
New Zealand (1973)	24 260,5	34 851,7	43.66%

Norway (1961)	46 533,9	60 396,2	29.79%
Poland (1996)	11 016,7	26 129,2	137.18%
Portugal (1961)	21 906,6	28 106,4	28.30%
Slovak Republic (2000)	13 077,1	29 901,9	128.66%
Slovenia (2010)	17 838,2	30 388,2	70.36%
Spain (1961)	24 604,3	33 696,3	36.95%
Sweden (1961)	30 136,7	45 208,6	50.01%
Switzerland (1961)	43 600,5	55 104,2	26.38%
Turkey (1961)	11 647,8	24 915,2	113.90%
United Kingdom (1961)	28 127,0	39 331,9	39.84%
United States (1961)	38 324,5	53 219,4	38.87%

## Appendix 2: Correlation matrix

Table A2: Correlation Matrix

	<i>GDP pc</i>	<i>Initial GDP</i>	<i>Population growth</i>	<i>Private credit</i>	<i>Trade openness</i>	<i>FDI</i>	<i>Economic Freedom</i>	<i>Government Expenditure</i>	<i>CPI</i>	<i>School</i>
<i>GDP pc</i>	1.00									
<i>Initial GDP</i>	-0.43	1.00								
<i>Population</i>	-0.31	0.65	1.00							
<i>Private.Sc</i>	-0.37	0.62	0.45	1.00						
<i>Trade ope</i>	0.22	-0.46	-0.43	-0.08	1.00					
<i>FDI</i>	0.22	-0.08	-0.11	-0.03	0.28	1.00				
<i>Economic F</i>	-0.07	0.31	0.32	0.48	0.07	-0.06	1.00			
<i>Government</i>	-0.21	0.26	0.10	0.12	0.30	0.24	0.00	1.00		
<i>CPI</i>	-0.07	-0.35	-0.27	0.06	0.50	-0.24	0.16	-0.08	1.00	
<i>School</i>	0.04	0.07	-0.01	-0.01	0.26	-0.02	0.50	-0.02	0.31	1.00

### Appendix 3:

Table A3: Hausman test

<i>Hausman Test</i>			
<i>Test Summary</i>	<i>Ch-Sq statistics</i>	<i>Df</i>	<i>Prob</i>
<i>Cross-Section</i>	20.104587	8	0.0009
<i>Random</i>			

### Appendix 4:

Table A4: Lagrange multiplier LM test

<i>Lagrange multiplier (LM) test for panel data. Probability in ()</i>	<i>Cross-Section One-Sided</i>	<i>Period One-Sided</i>	<i>Both</i>
<i>Breusch-Pagan</i>	1.439269 (0.2303)	86.01944 (0.0000)	87.45871 (0.0000)
<i>Honda</i>	1.199695 (0.1151)	9.274667 (0.0000)	7.406493 (0.0000)

## Appendix 5:

Table A5: Random effects estimation of logged GDP per capita growth

Variables	(2.1)	(2.2)	(2.3)
FDI	0.0338*** (0.009)	0.02263** (0.009)	0.0199** (0.009)
School (Human Capital)	-0.4674* (0.2522)	0.4059** (0.1752)	-0.664 (0.2157)
Pop. Growth		-0.1889 (0.1356)	-0.1732 (0.140)
CPI		-0.0127*** (0.0025)	-0.0128*** (0.0031)
Logged Initial GDP		-1.0036*** (0.1924)	-0.2738 (0.2716)
Government Spending		-0.0158** (0.0062)	-0.0291*** (0.0074)
Trade Openness			0.0074*** (0.0022)
Economic Freedom			0.0224** (0.0109)
Private Credit			-0.0042*** (0.0014)
FDI*School			0.0016 (0.0480)
R-squared	0.0536	0.2173	0.2519

Standard errors in parentheses

\*\*\*p<0.01, \*\*p<0.05 and \*p<0.1

Table A6: Random effects estimation of logged GDP per capita growth with lagged FDI variable

Variables	(3.1)	(3.2)	(3.3)	(3.4)
FDI	0.0338*** (0.009)	0.02263** (0.009)	0.0199** (0.009)	0.0262** (0.0104)
School (Human Capital)	-0.4674* (0.2522)	0.4059** (0.1752)	-0.664 (0.2157)	-0.0231 (0.2045)
Pop. Growth		-0.1889 (0.1356)	-0.1732 (0.140)	-0.1351 (0.1393)
CPI (Inflation)		-0.0127*** (0.0025)	-0.0128*** (0.0031)	-0.0135*** (0.0034)
Logged Initial GDP		-1.0036*** (0.1924)	-0.2738 (0.2716)	-0.4642* (0.2597)
Gov. Spending		-0.0158** (0.0062)	-0.0291*** (0.0074)	-0.0269*** (0.0068)
Trade Openness			0.0074*** (0.0022)	0.0072*** (0.0021)
Economic Freedom			0.0224** (0.0109)	0.0249** (0.0107)
Private Credit			-0.0042*** (0.0014)	-0.0036*** (0.0014)
FDI*School			0.0016 (0.0480)	0.0018 (0.0490)
Lagged FDI				-0.0118* (0.0104)
R-squared	0.0536	0.2173	0.2519	0.2687

Standard errors in parentheses

\*\*\*p<0.01, \*\*p<0.05 and \*p<0.1