Determinants of Foreign Direct Investment: Corruption, Political Instability and Corporate Income Tax Rate
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Determinants of Foreign Direct Investment:
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This dissertation represents the end of an incredible journey and getting here would not be possible without having the best people in the world by my side and I would hereby like to show my immense gratitude.

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Abstract

This dissertation intends to study the impact of variables such as corruption, political instability and corporate income tax rate on Foreign Direct Investment (FDI) inflows in G20 countries. Although they seem to be important indicators for investors, the impact of these variables on FDI is not consensual in existing literature.

In order to verify how these factors influence the FDI of the major economies of the world, this empirical study is based on World Bank and OECD annual data relatively to G20 economies, for the period between 2012 and 2018. The panel data allowed a model estimation that represents the relationship between the mentioned variables using the Generalized Least Squares Method with Period Fixed Effects.

The results reveal that corruption and labour costs negatively affect the FDI inflows. On the other hand, trade openness and GDP growth rate have a positive relationship on the FDI inflows. However, both political instability and corporate income tax rate are not statistically significant on FDI attractiveness.

Key Words: Foreign Direct Investment, Corruption, Political Instability, Corporate Income Tax
Resumo

Esta dissertação pretende estudar o impacto de variáveis como a corrupção, a instabilidade política e a taxa de imposto sobre o rendimento das empresas nas entradas de Investimento Direto Estrangeiro (IDE) nos países do G20. Apesar de parecerem ser indicadores importantes para os investidores, o impacto destas variáveis no IDE não é consensual na literatura existente.

Com o objetivo de verificar de que forma estes fatores influenciam o IDE das maiores economias do mundo, o estudo empírico teve por base dados anuais do Banco Mundial e da OCDE relativos às Economias do G20, para os anos de 2012 a 2018. Os dados em painel permitiram a estimação de um modelo que representa a relação entre as variáveis mencionadas através do Método dos Mínimos Quadrados Generalizados com Efeitos Fixos Temporais.

Os resultados demonstram que a corrupção e os custos de mão-de-obra afetam negativamente as entradas de IDE. Por outro lado, o grau de abertura e a taxa de crescimento do PIB apresentam uma relação positiva com o IDE. No entanto, tanto a instabilidade política como a taxa de imposto sobre o rendimento das empresas não são estatisticamente significativos na atratividade de IDE.

Palavras-chave: Investimento Direto Estrangeiro, Corrupção, Instabilidade Política, Imposto sobre o Rendimento das Empresas
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## Abbreviations

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<th>Description</th>
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<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>G20</td>
<td>Group of 20</td>
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<td>EU</td>
<td>European Union</td>
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Chapter I

Introduction

Foreign Direct Investment (FDI) is a type of cross-border investment that reflects the objective of establishing a lasting interest by a resident enterprise in one economy in an enterprise that is resident in an economy other than that of the direct investor. [OECD, 2008]

FDI is an international economic integration key driver, seeing as it can "provide financial stability, promote economic development and enhance the well being of societies". [OECD, 2008] Indeed, FDI plays an important role in an economy of a country, because it is a source of financing, knowledge and innovation. It provides a huge array of advantages such as creating jobs; increasing the revenue of the host government, through taxes; increasing external competitiveness and rising productivity through innovation and new technologies. So, world economies are greatly interested in attracting FDI to their countries, seeing as it benefits them in so many ways.

The advantages are not only for countries that receive FDI. So as to have interest in investing abroad, investors must have advantages too. According to Easson [2004], the main objectives of foreign investments are to gain access to markets and to have access to natural resources and human resources that investors’ countries don’t have.

There are several forms of investing in a foreign country. Investors can acquire or merge with an enterprise in another country; create a joint venture with a company in another country; create a new venture in another country, which is called Greenfield Investment; or reinvest in an existing foreign-invested project. Lots of factors influence the
foreign investment location. These factors include economic and political stability, inexistence of bureaucratic obstacles, good business and legal infrastructures, adequate communications, skilled labour force, taxation and others. [Esson, 2004]

This dissertation intends to study the impact of corruption, political instability and corporate income tax rate on FDI. Although they seem to be important indicators for investors, the impact of these variables on FDI is not consensual in existing literature.

Although corruption represents the abuse of power for private gain, it can be perceived as a positive and a negative factor of doing international business. So, in the literature, it is possible to find evidence that corroborates the two positions. On the one hand, corruption can facilitate international businesses in countries with rigid regulation and lots of bureaucracy (e.g. Gossel [2018], Helmy [2013], Al-Sadig [2009], Wu [2006]). On the other hand, corruption leads to inefficient outcomes and higher investment costs, which drives foreign investors away (e.g. Brada et al. [2019], Mudambi et al. [2013], Wei [2000a,b]).

As far as political instability is concerned, there is greater consensus in prior literature about its effect on FDI inflows. As a risk factor, it is expected that political instability represents a barrier to FDI inflows (e.g. Sabir et al. [2019], Benáček et al. [2014], Louie and Rousslang [2008], Brada et al. [2006]).

Relatively to corporate income tax rate, the impact of this determinant on FDI inflows is no longer predictable, as is evident in previous literature. Supposedly, foreign investors are not very interested in investing in a country that displays high corporate income tax rate, seeing as it implies a huge cost and, consequently, a low investment return (e.g. Silva and Lagoa [2018], Becker et al. [2012], Pereira [2011]). Nevertheless, high corporate income tax rates are able to stimulate the FDI inflows as long as the revenue is used to improve the business environment (Hunady and Orviska [2014], Râdulescu and Druica [2014], Göndör and Nistor [2012a]).

FDI can also be influenced by many factors, such as labour costs and productivity, infrastructure quality, international trade and market size, economy growth, level of development, and others (e.g. Boğa [2019], Gupta and Singh [2016], Mateev [2009], Lucas [1993]).
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In order to verify the impact of corruption, political instability and corporate income tax rates on FDI inflows, I have constructed a regression model based on Sabir et al. [2019], Hunady and Orviska [2014], Helmy [2013], Pereira [2011] and Al-Sadig [2009] investigations. I have also investigated how labour costs, trade openness and GDP growth rate influence the FDI attractiveness. The empirical study is based on a panel analysis, using World Bank and OECD annual data relatively to Group of 20 (G20) economies, for the period between 2012 and 2018. The G20 is constituted by the 20 major economies of the world and, consequently, the best investment destinations for investors. Due to the type of data and its specificities, the regression estimation method used is the Generalized Least Squares with Period Fixed Effects.

My research aims at giving three contributions. Firstly, I intend to contribute to the existing literature of FDI determinants, providing empirical evidence of the impact of corruption, political instability and corporate income tax rate on the level of FDI inflows in G20 economies. The effects of corruption and political instability on FDI inflows have been studied mostly for developing countries. This dissertation studies how these variables affect the FDI attractiveness in the major economies of the world, which includes developing and developed countries. Thus, it provides a more extensive analysis of the impact of corruption and political instability on FDI inflows. Secondly, I intend to analyse how the development level of a country influences the impact of these variables on FDI inflows. In order to look into this, the sample was divided in two subsamples: developing countries and developed countries, according to IMF criteria. Furthermore, I am also studying the impact of the mentioned determinants on European Countries FDI inflows. Finally, due to the importance of FDI in the economy of a country, I am presenting important information for governments about how corruption, political instability and corporate income tax rate affect the levels of FDI in their countries.

This dissertation is structured as follows: Chapter 2 reviews the prior literature on determinants of Foreign Direct Investment; Chapter 3 presents the investigation hypothesis, the data and sample and the methodology of this investigation; Chapter 4 provides an analysis of the results; Chapter 5 shows the main conclusions.
Chapter 2

Literature Review

This chapter aims to review the existing literature related to the determinants that influence the level of Foreign Direct Investment in a country, particularly corruption, political instability and corporate income tax rate. According to OECD [2008], FDI reflects the objective of establishing a lasting interest by a resident enterprise in one economy (direct investor) in an enterprise (direct investment enterprise) that is resident in an economy other than that of the direct investor.

2.1 Corruption

According to Transparency International, corruption is "the abuse of entrusted power for private gain". Unfortunately, corruption exists in both developing and developed countries, because it "thrives where temptation meets permissiveness" (lack of power’s international checks, opacity in decision making, disempowered population,...).

However, corruption can be seen both as a positive and a negative factor of doing business across borders. On the one hand, corruption can facilitate and foster business in countries with rigid regulation and inefficient public entities and bureaucracy. On the other hand, corruption leads to inefficient outcomes and higher investment costs, having an adverse effect on the economic performance of the country. [Al-Sadig, 2009, Mudambi et al., 2013]
Thus, it is normal that there is no consensus relatively to the effect of the corruption of the country attracting FDI: some investigators present corruption as a negative factor to FDI attractiveness and others show that it has a positive effect on FDI inward.

Brada et al. [2019] have constructed and tested a model of bilateral FDI between countries that differ in their levels of corruption. The results show that host-country corruption has a negative effect on the likelihood of receiving FDI and firms from corrupt countries become adept at dealing with corruption and invest in countries with similar levels of corruption. Using a survey of businesses across forty administrative districts, Kuzmina et al. [2014] studied the effect of poor governance quality on FDI in Russia. They found that higher frequency of using illegal payments and higher pressure from regulatory agencies, enforcement authorities and criminals negatively affect FDI. Mudambi et al. [2013] analysed FDI inflows in 35 countries for four distinct time periods and found that the level of corruption is a major determinant of the extent of FDI inflows. Júlio et al. [2013] examined the role of geographic, economic and institutional factors in attracting FDI in Europe, particularly in Portugal. They found that improving domestic institutions, promoting the independence of financial institutions, lowering political risk and corruption may positively affect the amount of FDI that is targeted to Portugal. Aw and Tang [2010] explored the role of corruption on inward FDI in Malaysia. They found that openness, interest rate, inflation rate and the level of corruption are the major determinants explaining inward FDI in Malaysia and that corruption has a negative impact on FDI.

Wei [2000a] questioned if corruption reduces inward FDI and found that corruption in capital-importing countries affect both the volume and the composition of their capital inflows. Wei [2000b] also studied the effect of taxation and corruption on FDI from 14 source countries to 43 host countries. Using three different measures of corruption, he has reached two central findings: 1) a rise in either the tax rate on multinational firms or the corruption level in the host countries reduce FDI inflows; and 2) American investors are averse to corruption in host countries as OECD investors, in spite of its Foreign Corrupt Practices Act.

Gossel [2018] researched the relationship between FDI, democracy and corruption among 30 countries in Sub-Saharan Africa. A Generalized Method of Moments analysis
show that corruption is used by FDI investors to overcome the weak democratic regulatory and institutional status of the region.

Helmy [2013] investigated the link between corruption and FDI inflows to the Middle East and North Africa. The results demonstrate that FDI varies positively with corruption, mostly due to the weakness of institutional structure. Additionally, FDI in those countries is positively affected by per capita income, openness, freedom and security of investments and negatively affected by tax and homicide rates.

Using a panel data analysis, Al-Sadig [2009] examined the effects of corruption on FDI inflows, in developing countries. Initially, he found an adverse effect of corruption on FDI. However, after controlling other characteristics of the host country (democracy index and quality of institution), the negative effects of corruption disappear and become statistically insignificant.

Considering a sample of 24 OECD source countries, Wu [2006] studied the impact of a distance measure of corruption between host and source countries on FDI and found that host country corruption and corruption distance are less of a barrier to cross-border FDI for firms in more-corrupt countries than in less-corrupt countries.

In spite of most of the countries where corruption is considered a positive factor to FDI attractiveness being developing economies, Blundell-wignall and Roulet [2017] explored the impact of corruption and found that corruption presents an insignificant or even a positive effect on FDI in the general population. They also studied the impact of the adherence to the OECD Anti-Bribery Convention and showed that countries that adhere to reduce investments in corrupt destinations.

2.2 Political Instability

Political instability is related to the probability of a government fall resulting from pressure or lack of support. It can be the result of domestic conflicts or harsh competition between political parties.

In regard to the three main FDI determinants of this study, there is a greater consensus in previous literature about the effect of political instability on FDI inflows. According to
Brada et al. [2006], there are two principal risks when investing in political instable countries. Firstly, political instability reduces the profitability of the host country, because it hinder and prevents the normal functioning of the economy. Secondly, it is very likely that political instability affects the currency value of the host country, which means a de-crease on the value of assets as well as reducing future profits generated by the investment.

Considering political instability is a risk factor, it is expected that foreign investors require a higher investment return in politically unstable countries or even prefer to invest in more politically stable countries. In conclusion, it is expected that political instability is like a barrier to FDI inflows. For example, Louie and Rousslang [2008] studied how the quality of the host-country governance affects the rates of return that US companies require on their FDI. Using indexes of corruption and political instability, they found that poor governance causes the companies to require higher rates of return and it can discourage both local investment and inward FDI.

Sabir et al. [2019] studied the impact of institutional quality on FDI inflows for developed and developing countries. They found that institutional quality has a positive impact on FDI in all group of countries, but the magnitude of the coefficients of control of corruption, government effectiveness and political stability for FDI inflows are greater in developed countries than in developing countries and this shows that institutional quality is a more decisive determinant of FDI in the first than in the latter. In developing economies, mainly with high levels of corruption and political instability, the main factors that attract FDI are labour cost and GDP growth. In such countries, economic, financial and social adverse conditions hinder investment in education and the development of infrastructures quality, which enables a lower cost of labour.

Emudainohwo et al. [2018] examined the effects of government policies and institutions on FDI inflows in Sub-Saharan Africa, over the period of 1984-2012. The authors show that political instability and democratic accountability have a negative and significant relationship with FDI inflows, while low investment risk have a positive and significant impact on inward FDI. Jadhav [2012] explored the impact of economic determinants (market size, trade openness and natural resources) and institutional and political determinants (macroeconomic stability, political stability, government effectiveness, regulatory quality, control of corruption, voice and accountability and rule of law) in attracting FDI
in BRICS (Brazil, Russia, China and South Africa). Using panel data for a period of 10 years, he shows that economic factors have a more significant impact than institutional and political factors in BRICS economies. In this study, only rule of law and voice and accountability are statistically significant in the institutional and political determinants of FDI. Cleeve [2012] analysed the role of institutional factors and political stability in FDI inflow to Sub-Saharan Africa. The results show that political stability and institutional proximity (credibility) attracts more FDI. Plus, factors as large market size, GDP growth rate, good infrastructural development, high skills level and the openness of the economy also increase FDI inflows.

Durnev et al. [2015] analysed the role of political instability for the composition of FDI, whether it takes form of a majority- or minority-owned investment. Findings show that political instability decreases the relative attractiveness of minority-owned investment but increases the probability of majority-owned investments.

By adopting a cross-country comparative approach, Benáček et al. [2014] explored how economic and political risk affect FDI inflows into a particular set of host countries over the period 1995-2008. The authors found that countries with more transparent and efficient institutions (i.e. political stability) tend to experience higher levels of FDI inflows. It is also important to mention that factors like trade openness, market size and income have a positive influence in FDI attractiveness. Brada et al. [2006] also demonstrated that political instability has a negative relationship with FDI inflows into the transition economies of Central Europe and the Balkans.

Asiedu [2006] studied the FDI determinants in Africa. The results indicate that market size, existence of natural resources, good infrastructure, low inflation, an efficient legal system and a good investment framework increase FDI. However, corruption and political instability have a negative relationship with FDI. Asiedu and Lien [2011] also studied the interaction between democracy, natural resources and FDI, in Sub-Saharan Africa, and found that democracy increases the level of FDI inflows in countries where the share of natural resources in total exports is low, but has a negative effect on FDI where natural resources dominate the exports.

In existing literature, most of the authors that studied the relationship between political instability and FDI inflows found that political unstable countries have lower levels
2. Literature Review

Determinants of FDI

of FDI inflows. However, it doesn’t always happen. Williams [2017] studied the relationship between FDI and growth and whether FDI and growth respond differently to political instability, using 3 dimensions of political instability. The results show that FDI had a significant positive effect on growth but, on the other hand, economic growth did not significantly increase FDI inflows. Regime instability negatively affects growth but it is statistically insignificant to FDI. Using three different techniques of panel data (pooled OLS with robust standard errors, cross-sectional time-series feasible GLS and random effects), Kim [2010] investigated the relationship among the FDI and political stability. Findings show that countries with high political rights have higher FDI outflows; countries with high level of corruption of government and low level of democracy have higher FDI inflows; and, finally, on the one hand FDI inward performance is positively correlated with the level of corruption, on the other hand it has a negative relationship with political rights. Overall, FDI flows are affected by the level of host countries’ political stability.

2.3 Corporate Income Tax

Corporate taxes are often seen as a significant factor to invest in an economy. Governments around the world compete to attract FDI to their countries by providing low tax rates or more tax incentives. [Silva and Lagoa, 2018, Kandpal and Kavidyal, 2014, Desai et al., 2006]

In theory, it would be expected that a high corporate income tax rate drives investors away, because it implies a huge cost for them and, consequently, a low return of the investment. However, some countries are so attractive due to their technology, labour cost, productivity and know-how that investors believe investing there these determinants will grant them business opportunities and offer financial returns that cover the high level of taxes. High corporate tax rates can stimulate the FDI flows if the revenue is used to improve the environment in which investors operate (good infrastructures, open markets, ...). [Göndör and Nistor, 2012a,b]

That is why it is not clear how investors react to the level of corporate income tax rate of the country in which they intend to invest.
Using firm-level data, Silva and Lagoa [2018] analysed the impact of the level and volatility of tax rates on FDI (effective, statutory and marginal). They also studied how economic and monetary integration influences the effect of taxes on FDI. Findings demonstrated that the effective average tax rate has the largest negative impact on FDI and the volatility of corporate tax rates negatively affects FDI. Finally, countries within the euro area are under less pressure to reduce corporate taxes to attract FDI, showing a positive impact of economic and monetary integration. Previously, Hansson and Olofsdotter [2013] has done a similar investigation, using data on EU15 countries, and found that corporate marginal effective tax rates have a negative impact on FDI but this impact is mitigated when agglomeration is included.

Merz et al. [2017] and Lawless et al. [2018] analysed how corporate taxation affect the location of financial sector FDI. Findings show a negative effect of host country taxes on the probability of choosing a particular host location.

Lodhi [2017] wanted to provide insight on the impact of change in Tax and Tariff rates on domestic investment in Pakistan while examining the impact of those variables on the FDI of the country. The results show that investment is negatively affected by higher tax rates. Economou et al. [2017] examined the FDI inflow determinants in 24 OECD countries and 22 developing countries (non-OECD) over 1980-2012. They found that lagged FDI, market size, gross capital formation and corporate taxation significantly affect FDI inflows in OECD countries. In developing countries, the lagged FDI, market size, labour cost and institutional variables have a significant impact in FDI inflows.

Glass and Saggi [2014] studied competition for FDI between host countries through tax policies and found that reducing its tax on multinational production, a host country can attract more FDI. They also show that host countries that are less attractive for international investors (i.e. the ones with smaller skilled-labour supply) adopt smaller taxes on multinational production. Becker et al. [2012] used detailed data on European multinational firms to measure quantity and quality effects of corporate taxation on FDI. In terms of quantity effects, an increase in corporate tax rate reduces the stock of FDI. In terms of quality effects, the results suggest that corporate taxation lowers the profitability of investment projects and increases the labour intensity of production.
Using a panel data analysis, Pereira [2011] studied the impact of corporate income tax rate on FDI attractiveness, in EU15. Findings show that FDI has a negative relationship with the corporate income tax rate. He also found that FDI presented a negative relationship with labour cost and a positive relationship with GDP per capita and trade openness.

Bellak et al. [2008] aimed to test if a high corporate tax burden acts as a deterrent to FDI flows in the Central and East European host countries, seeing as it has a negative effect on the profitability of investments. The results show that a tax-lowering strategies seem to have a significant impact on FDI location.

Emmanuel Cleeve [2008] analysed the impact of fiscal incentives on FDI attractiveness in Sub-Saharan Africa. The author used three proxies for fiscal incentive (tax holidays, repatriation of profits and tax concessions). The results show that traditional factors such as large market size, good infrastructures, high skills level and labour costs are key determinants of FDI inflows. Regarding to fiscal policies, tax holidays have the greater positive effect on attracting FDI. Indeed, for some countries, offering too many concessions have an adverse effect on FDI inflows.

Based on panel data regression models, Hunady and Orviska [2014] analysed the effect of effective and statutory corporate tax rates on FDI. They conclude that corporate tax rates have no significant impact on FDI. However, they found that labour costs, openness of the economy, firing costs, GDP per capita and public debt have a significant effect in the attractiveness of the country. Rădulescu and Druica [2014] studied the impact of the fiscal and monetary policies on attracting FDI in Romania. Empiric results have shown that monetary factors like higher interest rates and higher inflation attracted FDI. Fiscal factors seem to play a less noteworthy role, being, however, relevant only in the long-term. Factors such as infrastructure, legal and political stability greatly influence the investment environment.

### 2.4 Other Determinants

The country foreign investment inflows depend on a huge array of factors. The following investigations illustrate that FDI can be influenced by labour costs and productivity, infrastructure quality, international trade and market size, level of development, among
others. In short, the business environment has a decisive impact on the decisions of investors.

Boğa [2019] researched the FDI inflows’ determinants in Sub-Saharan Africa. Based on annual data from 23 countries for the period of 1975-2017, GDP growth, trade openness, domestic credit, natural resources and telecommunication infrastructure are important FDI determinants in the long term, while, in the short term, only the GDP growth and trade openness are.

Gupta and Singh [2016] wanted to determine the most significant factors that influence the level of FDI inflows in BRICS, applying three regression models (OLS, fixed effects and random effects). They found that industrial production index (performance of the industry companies), inflation rates, unemployment rates, trade openness, exchange rate and labour cost are the most significant determinants in attracting FDI inflows in that countries.

Cezar and Escobar [2015] developed a theoretical model to explain how institutional distance influences FDI, in OECD countries. Findings show that institutional distance reduces both the likelihood that a firm will invest in a foreign country and the volume of investment it will take.

Using a fixed-effects panel data analysis, Popovici [2015] tried to emphasize the importance of the labour market in attracting FDI. The results show that, despite labour market is still a decisive determinant for foreign investors, they react differently according to the group of countries considered. On the one hand, investors in Central and Eastern Europe countries are looking for unqualified work but, on the other hand, the ones investing in Western Europe are looking for cheap labour force, due to its higher degree of know-how.

Villaverde and Maza [2015] studied the FDI determinants and found that economic potential, labour market characteristics, technological progress and competitiveness have a significant impact on FDI location. In contrast, market size and labour regulation have no significant influence on FDI.

Tintin [2013] investigated the determinants of FDI inflows in six Central and Eastern European countries by incorporating the traditional factors and institutional variables over the 1996-2009 period. The results show the positive and economically significant role of GDP size, trade openness, EU membership and institutions on FDI inflows.
By using a time series analysis, Bakar et al. (2012) examined the role of infrastructure and other determinants (market size, trade openness, human capital) in influencing FDI inflows in Malaysia. They found that infrastructure has a significant and positive effect on FDI inflows in Malaysia. Market size, trade openness and human capital also play major roles in determining FDI inflows in Malaysia.

Mateev (2009) found that both gravity factors (distance, population and GDP) and non-gravity factors (risk, labour costs and corruption) can explain the size of FDI inflows into transition economies in Central and South-eastern European countries, using an econometric model based on cross-section data analysis.

Focusing on labour costs, Bellak et al. (2008) analysed the determinants of FDI in Central and Eastern European Countries, in the period of 1995-2003. Results suggest that labour costs negatively affect FDI, while higher labour productivity positively affects FDI.

Ismail and Yussof (2003) focused on how labour market competitiveness affects FDI inflows in Malaysia, Thailand and the Philippines. Findings show, among other factors, FDI inflows depend on several aspects in the labour market, such as manufacturing wage rate, size of the labour force and the number of professional and technical workers.

Lucas (1993) explored the sensitivity of FDI to production costs in the 7 major host countries to foreign investment in Asia. Results suggest that FDI are less elastic to the costs of capital (including taxes) than to wages, however, there is a negative effect of greater pay upon FDI. In addition, FDI has a weak positive relationship with the size of domestic consumption spending and a great positive relationship with export markets.
Chapter 3

Hypothesis, Data and Methodology

This chapter provides the investigation hypothesis, presents the data and sample and explains the investigation methodology.

3.1 Investigation hypothesis

Before making a decision, international investors analyse economic, financial, social and political conditions of a potential FDI host country. This investigation aims at verifying if investors consider corruption, political instability and corporate income tax rate as key factors when it comes to invest in a foreign country.

In spite of the lack of consensus on the impact of these factors on FDI in the prior literature, it’s expected that 1) a country with high levels of corruption and political instability leaves investors worried about investing there and 2) paying a huge amount of taxes in the country they would invest drives investors away, seeing as they can invest in their own countries or in another country with lower taxes.

Thus, I have constructed the following hypothesis.

\( H_1: \) Corruption has a negative impact on FDI inflows.

\( H_2: \) Political instability has a negative impact on FDI inflows.

\( H_3: \) Corporate income tax rate has a negative impact on FDI inflows.
3.2 Data and Sample

This investigation is based on a panel data analysis, using data on Group of 20 (G20) economies between 2011 and 2018.

The 20 members of the group are Argentina, Australia, Brazil, Canada, China, the European Union ¹, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom and the United States of America. The G20 is constituted with the 20 major economies of the world and, consequently, the best investment destinations to investors, as it is possible to observe in the following figure (Figure 3.1).

Figure 3.1: Foreign Direct Investment, net inflows in 2018 (Source: World Bank)

The analysis period is between 2012 and 2018, seeing as it is when the Subprime Mortgage Crisis is over and has no secondary effects on the FDI inflows of countries.

So as to test the previous hypothesis, the dependent variable is Foreign Direct Investment (FDI), that is the net inflows of investment to acquire a lasting management interest

¹To have a bigger sample to analyse the FDI determinants, the European Union members are going to be analysed individually (excluding France, Germany, Italy and the United Kingdom, since these countries are considered separately in G20). The country members that are represented by the European Union in G20 are Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Greece, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.
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(10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor divided by GDP. The source of this variable is World Development Indicators of World Bank Database.

The independent variables used to explain FDI are Control of Corruption, Political Stability and Corporate Income Tax Rate.

Control of Corruption captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the "capture" of the state by elites and private interests. This indicator gives a score per country and varies between -2.5 to 2.5. Higher values of control of corruption correspond to better governance. Political Stability measures perceptions of the likelihood of political instability. This indicator gives a score per country, ranging from -2.5 to 2.5. As in control of corruption, higher values of political stability correspond to better governance. These indicators were taken from Worldwide Governance Indicators of World Bank Database.

Corporate Income Tax Rate is the tax applied to the profit of a firm, decided by the government. Data on this variable is from the Corporate Tax Table of KPMG.

In order to have more consistent results and bearing in mind which are considered the most important FDI determinants in prior literature, the model has control variables like GDP Growth, Trade Openness and Labour Cost.

GDP Growth is the annual percentage growth rate of GDP at market prices based on constant local currency. Note that, according to World Bank, 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.

Trade openness is the sum of exports and imports of goods and services measured as a share of gross domestic product.

Data on GDP growth and Trade openness is from World Development Indicators of World Bank Database.

Labour costs are defined as the average cost of labour per unit of output produced and are viewed as a measure of international price competitiveness. This indicator is measured in percentage changes and indices. Data on labour costs is from OECD Database.
3.2.1 Descriptive Statistics

Descriptive statistics of each variable can be found in Table 3.1.

<table>
<thead>
<tr>
<th></th>
<th>FDI</th>
<th>Control of Corruption</th>
<th>Political Stability</th>
<th>Tax Rate</th>
<th>Trade Openness</th>
<th>Labour Cost</th>
<th>GDP Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.050</td>
<td>0.741</td>
<td>0.415</td>
<td>0.243</td>
<td>1.013</td>
<td>0.017</td>
<td>0.045</td>
</tr>
<tr>
<td>Median</td>
<td>0.060</td>
<td>0.614</td>
<td>0.554</td>
<td>0.250</td>
<td>0.547</td>
<td>0.015</td>
<td>0.044</td>
</tr>
<tr>
<td>Maximum</td>
<td>1.986</td>
<td>3.405</td>
<td>1.439</td>
<td>0.600</td>
<td>4.084</td>
<td>0.133</td>
<td>0.353</td>
</tr>
<tr>
<td>Minimum</td>
<td>-0.461</td>
<td>0.0441</td>
<td>-2.009</td>
<td>0.090</td>
<td>0.125</td>
<td>-0.355</td>
<td>-0.073</td>
</tr>
<tr>
<td>Std.Dev.</td>
<td>0.157</td>
<td>0.315</td>
<td>0.677</td>
<td>0.071</td>
<td>0.701</td>
<td>0.010</td>
<td>0.038</td>
</tr>
<tr>
<td>Observations</td>
<td>301</td>
<td>301</td>
<td>301</td>
<td>301</td>
<td>301</td>
<td>220</td>
<td>301</td>
</tr>
</tbody>
</table>

Table 3.1: Descriptive Statistics

The mean proportion of FDI in GDP is 5%, considering all the G20 economies and all the years between 2012 and 2018. The amplitude of this variable is broad, given that the maximum net FDI inflows represents 198.6% of GDP and the minimum -46.1%. The country with the lowest level of net FDI inflows in GDP (-46.1%) invests more abroad than it receives foreign investment.

Relatively to the index that represents the Control of Corruption, the mean is 0.741. Taking into account that the index varies between -2.5 and 2.5, the mean shows that, on average, the countries have a positive control of corruption. It should be noted that the country in the sample with the maximum value (2.405) presents a value very close to the maximum allowed in the index, which means that the level of corruption is approximately null. In contrast, the country in the sample with the minimum value (-1.042) has the highest level of corruption.

As far as the Political Stability index is concerned, the mean is 0.423, that is nearly close to the central index value (0). Considering that this index also varies between -2.5 and 2.5, the country with the index minimum value (-2.009) has the lowest level of political stability. The country with the highest level of political stability has the index maximum value (1.439). In spite of having the highest index value, seeing as it is far from 2.5, it is possible to say that political stability levels are not very high in all the sample countries.
The average of Corporate Income Tax Rate is 24.3%. However, the minimum tax rate in G20 countries, throughout the period considered, is 9% and the maximum is 40%, which reflects different fiscal policies in G20 countries through time.

Trade Openness mean is 102.3% of GDP, that represents a high level of international trade in the considered countries. It is of the utmost importance to note there is a country that displays a value of exports and imports 4 times above GDP (4.084%).

The mean value of Labour Cost is 1.7%, that shows unit labour costs have grown 1.7%, on average, every year in the sample countries.

Despite the low value, the mean of GDP growth is positive (2.5%), which demonstrate that all countries had grown through time, on average.

Through the following graphics, the main variables behaviour will be analysed for Portugal, France, Germany, the United Kingdom, the United States and Brazil, for the period between 2012 and 2018. I have chosen France, Germany and the United Kingdom because they are considered the most relevant countries in EU and have an important role in G20 and the United States for the reason that it is considered the major economy in the world. As far as Brazil is concerned, I have included this country due to its cultural proximity to Portugal and it is one of the most significant economies that is part of the group of developing countries in G20.
The Figure 3.2 shows the FDI evolution in Portugal, France, Germany, the UK, US and Brazil. As it is possible to observe, excluding Portugal and the UK irregularities, the net FDI inflows have slowly increased throughout the years in all countries, on average. In view of the fact that this variable is measured in percentage of GDP, the irregularity of Portugal may be related to the GDP growth observed in the last years, as result of the Crisis recovery. The irregularity of the United Kingdom happens around 2016 and it is possibly connected with the announcement of Brexit, given that it worried investors.
The Figure 3.3 demonstrates how the efficiency level of Control of Corruption mechanisms developed by the governments and other national institutions in Portugal, France, Germany, the UK, US and Brazil evolve. The Control of Corruption levels in Portugal, Germany, France, the UK and the US are above zero, while in Brazil it is below zero, which means that corruption is higher in Brazil than in the other countries. This indicator remains constant for all the countries, on average. However, Brazil has verified a small decrease of Control of Corruption in the last years, showing an increase in the level of corruption in this country.
Figure 3.4: Level of Political Stability in Portugal, France, Germany, UK, US and Brazil
(Source: My own elaboration based on World Bank Data)

The Figure 3.4 exhibits how Political Stability levels have evolved in Portugal, France, Germany, the UK, US and Brazil for the mentioned period. In Portugal, the Political Stability level has increased a bit. Nevertheless, Political Stability of the other countries has decreased. In France and in US, it is possibly related to the Presidential elections. In the UK, it is associated with the Brexit announcement. In addition to the decrease of the level of Political Stability in Brazil, it is important to note that this level is the lowest one when compared with the level of other countries, which is normal when comparisons between developed countries and developing countries are made.
The Figure 3.5 presents the Corporate Income Tax Rates in Portugal, France, Germany, the UK, US and Brazil. France, Germany and Brazil governments have maintained the statutory tax rates in their countries. However, Portugal, the UK and US governments have reduced their statutory tax rates applied to Corporate Income. In the US, the Corporate Income Tax Rate was 40% until 2017, when President Donald Trump decided to reduce it to 27% in Tax Cuts and Jobs Act Congress.

The Correlation Matrix, that shows Pearson correlation coefficient between FDI and its determinants, is represented in Table 3.2.

<table>
<thead>
<tr>
<th></th>
<th>FDI</th>
<th>Control of Corruption</th>
<th>Political Stability</th>
<th>Tax Rate</th>
<th>Trade Openness</th>
<th>Labour Cost</th>
<th>GDP Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control of Corruption</td>
<td>0.770</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Stability</td>
<td>0.385</td>
<td>0.653</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax Rate</td>
<td>-0.057</td>
<td>-0.196</td>
<td>-0.002</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade Openness</td>
<td>0.373</td>
<td>0.115</td>
<td>0.466</td>
<td>-0.387</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour Cost</td>
<td>-0.049</td>
<td>-0.169</td>
<td>-0.328</td>
<td>-0.204</td>
<td>0.038</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>GDP Growth</td>
<td>-0.165</td>
<td>-0.049</td>
<td>-0.205</td>
<td>-0.459</td>
<td>0.239</td>
<td>-0.151</td>
<td>1.00</td>
</tr>
</tbody>
</table>

**Table 3.2:** Correlation Matrix
As expected, there is a positive relationship between FDI and Control of Corruption and the same happens with Political Stability. It demonstrates that countries with higher levels of Control of Corruption and Political Stability are likely more attractive to foreign investors.

Relatively to Corporate Income Tax Rate, it has a negative relationship with FDI, which means that higher tax rates tend to reduce the FDI inflows.

Trade Openness and GDP Growth have a positive relationship with FDI inflows, while Labour Cost negatively influence FDI attractiveness.

It is important to refer that Control of Corruption and Political Stability are highly correlated (0.653), what can cause multicollinearity problems. However, I consider both variables in the regression model, given that they are two of the three interest variables of my model.

3.3 Methodology

In order to test the investigation hypothesis, I will use a panel data analysis, as it provides a spatial and a temporal dimension. This type of analysis has lots of advantages when compared with cross-section analysis or time series analysis. For instance, it provides more information, more data variability, less collinearity between variables, more degrees of freedom and more estimation efficiency. [Marques, 2000]

The spatial dimension (cross-section) is built by the G20 countries and the temporal dimension correspond to the analysis of the G20 countries through a period of time, in this case 2012 to 2018. When there are no missing observations, the panel is denominated balanced. In this particular situation, as there are missing observations, the panel is classified as unbalanced.

One way to conjugate heterogeneous data with a parsimonious model is to admit that regression coefficients are similar for all observations, except the independent term. The independent term can be adjusted relatively to the cross-section dimension or to the temporal dimension [Marques, 2000]. In this investigation, the model assumes that the independent term can vary through time (period fixed effects).

---

2Models with great explanatory power.
3It was performed a Hausman Test to confirm that it was necessary to use a fixed effects estimation.
I will estimate the following regression model, based on Sabir et al. [2019], Hunady and Orviska [2014], Helmy [2013], Pereira [2011] and Al-Sadig [2009] investigations.

\[
FDI_{it} = \beta_0 + \beta_1 \text{ControlCorrupt}_{it} + \beta_2 \text{PolStab}_{it} + \beta_3 \text{TaxRate}_{it} + \beta_4 \text{TradeOp}_{it} \\
+ \beta_5 \text{Labour}_{it} + \beta_6 \text{GDPgrowth}_{it} + \epsilon_{it}
\]  

(3.1)

where \(FDI_{it}\) is the net foreign direct investment inflow for country i in year t as percentage of GDP; \(\text{ControlCorrupt}_{it}\) is the control of corruption indicator for country i in year t; \(\text{PolStab}_{it}\) is the political stability indicator for country i in year t; \(\text{TaxRate}_{it}\) is the corporate income tax rate for country i in year t; \(\text{TradeOp}_{it}\) is the trade openness for country i in year t as percentage of GDP; \(\text{Labour}_{it}\) is the labour cost for country i in year t; \(\text{GDPgrowth}_{it}\) is the GDP growth rate for country i in year t; and \(\epsilon_{it}\) is the error term.

Considering the stated hypothesis, the previous literature and the equation presented, it would be expected to have the following expected signs relatively to the estimation of Equation 3.1. (Table 3.3)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Expected Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control of Corruption</td>
<td>+</td>
</tr>
<tr>
<td>Political Stability</td>
<td>+</td>
</tr>
<tr>
<td>Tax Rate</td>
<td>-</td>
</tr>
<tr>
<td>Trade Openness</td>
<td>+</td>
</tr>
<tr>
<td>Labour Costs</td>
<td>-</td>
</tr>
<tr>
<td>GDP Growth</td>
<td>+</td>
</tr>
</tbody>
</table>

Table 3.3: Expected Signs of FDI Determinants
Chapter 4

Empirical Results

The estimation method used is Generalized Least Squares, instead of Ordinary Least Squares. This happens because the OLS estimator is not BLUE, i.e. best linear unbiased estimator, considering the assumption of homoskedasticity is violated. In that case, the GLS estimator is BLUE, due to the heteroskedasticity correction.

The results of this investigation are based on a panel data analysis: 220 observations were included, distributed by 34 "cross-sections", with annual data between 2012 and 2018. (Table 4.1)
### Table 4.1: Period Fixed Effects GLS Estimation Results

In column 1) of Table 4.1, the whole sample was used to estimate the model. Findings exhibit that:

- The independent variables are capable of explaining FDI behaviour in 38.6%, measured by R-squared. The F-statistics allows us to conclude by the model global significance.
- The control of corruption coefficient is positive and statistically significant at 1%, which is consistent with H1. When the control of corruption index increases, on average, FDI inflows as percentage of GDP also increase, *ceteris paribus*, that proves smaller levels of corruption in a country attract more FDI, according to Brada et al. [2019], Mudambi et al. [2013] and Wei [2000a,b] and, consequently, not consistent with Helmy [2013] investigation, that found a positive relationship between corruption and FDI.

- The political stability coefficient is negative and statistically significant at 5%, providing evidence that a politically stable country is less attractive to foreign investors and rejecting H2. According to the results, an increase in the political stability index has a negative effect on FDI inflows as percentage of GDP, on average, *ceteris paribus*, which are not in accordance with Sabir et al. [2019], Benáček et al. [2014] and Brada et al. [2006] investigations. The negative relationship between FDI and political stability has many possible explanations but I present only 2 of them. Firstly, the countries with higher levels of political stability index are the developed countries, which have good business environment and high investment levels on technology. However, developing countries, with lower levels of political stability index, have interesting factors that can be more attractive for foreign investors, such as low labour costs and high GDP growth rates. This can explain why political unstable countries are possibly more attractive for cross-border investments than political stable countries. For instance, Kim [2010] found that countries with high levels of political instability have more FDI inflows. Secondly, the way political stability variable is created can also affect this relationship, seeing as it is based on perceptions of the likelihood of political instability and it is not a precise indicator.

- The corporate income tax rate coefficient is negative, but it is statistically insignificant, showing that this determinant is not one of the most important factors attracting FDI. Because of that, H3 is rejected. These results are not consistent with Silva and Lagoa [2018], Economou et al. [2017] and Pereira [2011] investigations, which show that the corporate income tax rate is has a significant negative effect on FDI inflows. However, Hunady and Orviska [2014] also found that statutory corporate tax rates have no significant impact attracting FDI.

- In what concerns the control variables, all of them have the expected sign and are statistically significant at 1%. A 1 percentage point increase in trade openness causes, on
average, an increase of 0.052 percentage points in FDI inflows as percentage of GDP, *ce-teris paribus*. When labour costs growth rate decreases 1 percentage point, FDI inflows as percentage of GDP rise 0.697 percentage points, *ce-teris paribus*. If GDP grows 1 percentage point, FDI inflows as percentage of GDP increase 1.291 percentage points, *ce-teris paribus*. Overall, trade openness and GDP growth have a positive impact on FDI inflows, while labour costs growth rate has a negative impact on FDI attractiveness.

*Sabir et al. [2019]* studied the impact of institutional quality on FDI inflows for developed and developing countries. They found that institutional quality has a positive impact on FDI in all group of countries, but the magnitude of the coefficients of control of corruption, government effectiveness and political stability for FDI inflows are greater in developed countries than in developing countries and this shows that institutional quality is a more decisive determinant of FDI in the first than in the latter.

As *Sabir et al. [2019]*, I intend to study if the effects of FDI determinants are distinct in developed and in developing countries, so the sample was divided into 2 group of countries, according to the definition of International Monetary Fund (IMF). The list of developed and developing countries can be found in Appendix (Table A.1).

In developing economies, mainly with high levels of corruption and political instability, the main factors that attract FDI are labour cost and GDP growth. In such countries, economic, financial and social adverse conditions reduce investment in education and the development of infrastructures quality, which enables a lower cost of labour. On the contrary, in developed countries, economic, financial, social and political conditions not only allow a better country development, but also an important human development, through education. Thus, it is expected that the impact of these FDI determinants differ in developing and developed countries.

In column 2 of Table 4.1, only the developed countries were used to estimate the model. The results show that:

---

1The main criteria used by IMF to classify countries into developed economies and developing economies are per capita income level, export diversification and degree of integration into the global financial system.
- The independent variables are capable of explaining FDI behaviour in 48.5% in developed countries, measured by R-squared. The F-statistics allows us to conclude by the model global significance.

- The control of corruption coefficient is positive and statistically significant at 5%, which is consistent with H1. In developed countries, when it is verified an increase on control of corruption index, on average, FDI inflows as percentage of GDP also increase, *ceteris paribus*. Corruption remains an important FDI factor when only developed countries are considered.

- The political stability coefficient continues negative, but becomes statistically insignificant, rejecting H2. This result shows that, although an increase in the political stability index has a negative effect on FDI inflows as percentage of GDP, on average, *ceteris paribus*, political stability is no longer a relevant factor in this kind of countries.

- The corporate income tax rate coefficient is negative, but it is statistically insignificant, as in the previous estimation, which rejects H3.

- The control variables remain statistically significant and all of them have the expect sign.

The results of the developing countries estimation are not presented in Table 4.1, but in Table A.2. I chose to put the developing countries results in Appendix because all the independent variables became statistically insignificant and some signs are not the expected ones. This is, probably, a lack of data from developing countries consequence. Furthermore, the number of countries considered in the subsample of developing countries is low, which means that this subsample is too small to conclude about the effect of FDI determinants.

Finally, in column 3) of Table 4.1, I have considered just EU countries. The European Union is a unique economic and political union between 28 EU countries (in spite of the Brexit, I still considered the UK as EU member, because the analysis refers to the period between 2012 and 2018). As all of the 28 EU members are subjected to the same rules and policies, they compose a homogeneous subsample. Besides, they are economically and politically similar to each other, what makes the impact of these determinants on their FDI inflows interesting to observe. Findings reflect that:
The independent variables are able to explain FDI behaviour in 44.4% in EU-28 countries, measured by R-squared. The F-statistics allows to conclude by the model global significance.

The control of corruption coefficient is also positive and statistically significant at 1%, which is consistent with H1. In the EU-28 countries, if control of corruption index increases, on average, FDI inflows as percentage of GDP also increase, ceteris paribus. In the EU, corruption is considered a major determinant of FDI attractiveness.

The political stability coefficient remains negative and statistically insignificant, rejecting H2. This result shows that political stability does not influence FDI inflows in EU in a relevant way. It may be justified because in this group of countries political stability is the normality. Excluding Brexit, there are not many cases where political stability was not the norm, since they are an economic and political group and they have rules that minimize political instability issues. Besides, as they are alike, this is not a predominant factor explaining FDI.

The corporate income tax rate coefficient is negative and statistically insignificant, which rejects H3. However, the p-value has increased significantly and it is close to the significance level of 10%. Thus, corporate income tax rate may be an important FDI factor in this group of countries and has a negative impact on FDI inflows. This is mostly explained by the autonomy of governments to decide on fiscal policies and just about that, which means that, seeing as governments have no other instruments to be competitive in EU, tax rates are the tool used by to attract foreign investors.

As before, the control variables remain statistically significant and all have the expected sign.
Chapter 5

Conclusion

FDI has a huge influence on their economic, technological, social and cultural development, due to its advantages for the involved economies. Thus, the competition between countries to achieve more foreign investments is increasing and the world economies give their best to attract across borders investors.

As it was mentioned before, there are lots of determinants that influence the FDI attractiveness, namely labour costs, trade openness, level of development, infrastructure quality, purchasing power and more. This dissertation has focused on studying the impact of corruption, political instability and corporate income tax rate on FDI attractiveness in G20 economies.

The conclusions drawn from studies reported in prior literature about the impact of these determinants on FDI inflows are ambiguous. The way these factors influence the FDI attractiveness varies with the type of countries analysed, the time period examined and the variables considered. Some authors have submitted empirical evidence that high levels of corruption, political instability and corporate income tax rate have a negative effect on FDI inflows. However, some other authors show that these determinants are insignificant or even have a positive effect attracting FDI, because there are factors of greater importance for foreign investors.

The data employed in this investigation was from the World Bank and the OECD Databases. The sample was constituted by G20 economies and it was considered the period between 2012 and 2018. Besides the aforementioned determinants, control variables,
such as trade openness, labour costs and GDP growth rate, were also included so that this study could have more robust results.

The econometric model was estimated by Generalized Least Squares with Period Fixed Effects and considers that FDI inflows depend on control of corruption level, political stability level, corporate income tax rate, trade openness, labour costs and GDP growth rate.

The estimation results for the G20 countries demonstrate that corruption is statistically significant and it has a negative relationship with the FDI attractiveness. However, political instability and corporate income tax rate are not statistically relevant to foreign investors. Furthermore, a negative relationship between political instability and FDI was expected, however, that didn’t happen. It can be explained by the way how this variable is constructed or by the presence of other relevant factors for investors in political unstable countries that political stable countries don’t have. Control variables are all statistically significant and trade openness and GDP growth rate have a positive effect on FDI inflows, while labour costs have a negative impact on it.

I have also analysed how FDI inflows are influenced by the referred factors in EU-28 and in developed countries. The results are very similar to those obtained using the whole sample. Corruption and labour costs have a negative impact on attracting FDI; trade openness and GDP growth rate have a positive relationship with FDI inflows; and political instability and corporate income tax rate are statistically insignificant to the FDI attractiveness.

Overall, corruption, trade openness, labour costs and GDP growth rate are fundamental determinants to foreign investors when they intend to invest in G20 countries.

Unfortunately, this empirical study had some limitations. Firstly, the lack of available data on developing countries did not allow an analysis of the impact of FDI determinants on these group of countries, particularly the effect of political instability on FDI inflows, and that would be interesting in view of the fact that this variable had controversial results in the other samples analysed. And secondly, I considered the statutory tax rate to study the influence of the corporate income tax rate on FDI inflows and, due to tax exemptions and benefits, the effective tax rate (ETR) would be more appropriate. Nevertheless, it is important to mention that ETR data was not available for most of the G20 countries.
For future investigations, I suggest analysing the impact of corruption, political instability and corporate income tax rate on FDI inflows in a more homogeneous sample and with a greater number of observations. I also find it would be interesting to verify the impact of other variables such as the environmental sustainability of the countries.
Appendix A

Appendix

<table>
<thead>
<tr>
<th>Developed Countries</th>
<th>Developing Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Japan</td>
</tr>
<tr>
<td>Austria</td>
<td>Korea</td>
</tr>
<tr>
<td>Belgium</td>
<td>Latvia</td>
</tr>
<tr>
<td>Canada</td>
<td>Lithuania</td>
</tr>
<tr>
<td>China</td>
<td>Luxembourg</td>
</tr>
<tr>
<td>Cyprus</td>
<td>Malta</td>
</tr>
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<td>Czech Republic</td>
<td>Netherlands</td>
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<td>Denmark</td>
<td>Portugal</td>
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<td>Estonia</td>
<td>Slovakia</td>
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<td>Finland</td>
<td>Slovenia</td>
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<td>France</td>
<td>Spain</td>
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<td>Germany</td>
<td>Sweden</td>
</tr>
<tr>
<td>Greece</td>
<td>United Kingdom</td>
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<tr>
<td>Ireland</td>
<td>United States of America</td>
</tr>
<tr>
<td>Italy</td>
<td></td>
</tr>
</tbody>
</table>

**Table A.1:** List of Developed and Developing Countries, according to IMF
### Table A.2: Period Fixed Effects GLS Estimation Results for Developing Countries

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coef. (Std. Error)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\beta_0$</td>
<td>0.022 (0.053)</td>
<td>0.687</td>
</tr>
<tr>
<td>ControlCorrupt</td>
<td>0.021 (0.048)</td>
<td>0.667</td>
</tr>
<tr>
<td>PolStab</td>
<td>-0.019 (0.045)</td>
<td>0.679</td>
</tr>
<tr>
<td>TaxRate</td>
<td>0.009 (0.167)</td>
<td>0.957</td>
</tr>
<tr>
<td>TradeOp</td>
<td>0.014 (0.026)</td>
<td>0.601</td>
</tr>
<tr>
<td>Labour</td>
<td>0.090 (0.266)</td>
<td>0.736</td>
</tr>
<tr>
<td>GDPGrowth</td>
<td>-0.418 (0.416)</td>
<td>0.323</td>
</tr>
<tr>
<td><strong>R-squared</strong></td>
<td></td>
<td>0.197</td>
</tr>
<tr>
<td><strong>Prob(F-statistic)</strong></td>
<td></td>
<td>0.797</td>
</tr>
<tr>
<td><strong>Observations</strong></td>
<td></td>
<td>44</td>
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</table>
Bibliography

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