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#### **Master's Thesis of Public Administration**

# **Do Business Regulations Matter for Foreign Direct Investment?**

The Case of Latin America

해외직접투자에 대한 기업 규제의 중요성 고찰 라틴 아메리카의 사례를 중심으로

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# Do Business Regulations Matter for Foreign Direct Investment?

The Case of Latin America

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## **Abstract**

# **Do Business Regulations Matter for Foreign Direct Investment?**

### The Case of Latin America

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There is a growing concern about the relationship between business regulations and their impact on Foreign Direct Investment (FDI) in Latin American countries, even though various attempts have been made to address this matter, the region's empirical evidence is not enough. This study measured the impact of business regulations, using the Doing Business Index as a proxy of business regulations, on FDI in a set of 21 Latin American economies.

A quantitative analysis was conducted, using panel data for 21 countries in 14 years period, based on GMM Arellano and Bond methodology where multiple regression models were performed to ensure the robustness of the results. Further, a qualitative analysis was conducted based on primary data collected through 9 in-deep interviews in a single case of study.

The results showed that the ease of Doing Business score is a significant and positive stimulus for FDI under several specifications, and there are some indicators of the Doing Business Index that matter more than others. These indicators are starting a business, paying taxes, registering property and trading across borders. These four indicators were positively significant under several specifications.

The study is concluded by general and specific recommendations to the

government in aim to work toward a better business climate that boosts Foreign Direct Investment in the region.

Key Words: FDI, business regulations, Latin America, Doing Business.

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## **Chapter 1: Introduction**

### 1.1. Background

In recent times, the global economy has experienced significant growth in Foreign Direct Investment (FDI). In Latin America, FDI has increased considerably from 6% in 2007 to 10% in 2019 of the world's total amounts (UNCTAD, 2019). Usually, FDI is seen as an engine that has the potential to drive growth in host countries. It is often argued that it brings positive externalities associated with the transfer of knowledge and knowhow between national companies and foreign companies that carry out the investments. These externalities, which would occur through direct technology transfer, diffusion of best technological and organizational practices, and staff mobility, among other channels, would generate productivity gains for the host economies. At the same time, FDI can create jobs and help diversify exports and transform the productive structure. All this means that it can positively impact the recipients' growth and development (Garcia & López, 2020).

Following this argument, many governments have implemented various policies to attract FDI, reducing barriers to foreign investment, generating investment promotion programs, and offering different types of incentives. For example, the Nicaraguan's government has implemented 11 reforms since 2011, and Colombia has implemented 35 reforms since 2005 (World Bank, 2020).

Through their investment promotion agency, governments pay special attention to the Doing Business Index; they believe that a better score directly affects the amount of FDI they attract, so many agencies monitored the indicators and propose reforms to the government. However, is there sufficient empirical evidence to decide that business regulations

matter for FDI in Latin America?

Improving our ability to analyze and understand this phenomenon is key to the development of Latin American countries. Even though various attempts have been made to address this matter, the region's empirical evidence is not enough. There is a growing concern about the direct association between the Doing Business index and FDI in the literature, some scholars have already researched this topic, but there are four-points to highlight.

First, most of them have a focus on developed countries, Asian and African states. They have included just the biggest economies in Latin America, such as Brazil, Mexico, Chile, and Argentina.

Second, most studies fail to include all of the Doing Business index indicators, analyzing an average of four and did not provide an objective explanation of the selection process.

Third, most of the studies have considered a short period, between 4 to 6 years.

Fourth, there is no consensus about the results in detail. Some authors consider starting a business as the most important indicator. Others think it irrelevant and suggest trade across borders as the most important. Another study suggests enforcing contracts as the most important.

Subsequently, this research has identified the need for a study that includes most of the Doing Business Index indicators, an extended period, and a focus on Latin American countries, a set of countries that share a historical background and have been identified for its political and economic instability.

#### 1.2. Purpose of Research

This research seeks to measure the impact of business regulations, measured by the Doing Business Index, on Foreign Direct Investment over

the past fourteen years (2005 - 2018) in a set of twenty-one economies in Latin America.

Thus, this research aims to answer the following questions: Is the Doing Business Index, as a whole, a significant and positive stimulus to FDI for countries in Latin America? And Which indicators are significant and important to FDI for countries in Latin America? This research will use robust panel data that cover a more extended period than previous studies such as Wagle (2010), Jayasuriya (2011), and Corcoran and Gillanders (2014).

According to OECD, emerging economies and countries in transition increasingly see FDI as a source of economic development, modernization, income, and employment growth. In Latin America, Lujano (2017) points out that FDI has been considered an indispensable factor for development. He argues that FDI can boost host economies' growth as it can complement domestic investment through new capital contributions, stimulate technology transfers, jobs creation, and management systems for productive modernization.

Besides, it is generally accepted that economic growth benefits from higher FDI inflows through different benefits at diverse levels. The most common benefits are related to technological spillovers, efficiency, innovation, more employment, boosting international trade and economic integration, among others. Further, the host economy has the chance to improve its business climate by implementing policies that attract more FDI (Shahadan, Sarmidi, & Jan Faizi, 2014). Based on Feldstein (2000) and Lougani and Razin (2001), the presence of more international enterprises conducts the host country to implement more sound policies that contribute to a better business environment.

Considering the advantages of FDI for host economies, countries have implemented foreign direct investment liberalization policies to attract more investments. They have considered how to develop their policies to

maximize the benefits of foreign presence in their domestic economy (Lougani & Razin, 2001).

The empirical literature suggests that the market-oriented approach is the primary determinant of FDI. This approach is driven by the size and growth prospects of the host market. Further, the institutional-oriented approach driven by business regulation and institutions' quality also plays an essential role in developing and least developed countries looking for attracting higher FDI inflows (Agosin & Machado, 2007).

In a business climate characterized by substantial restrictions to foreign investors, economies are likely not to get the full benefits generated by the potential of the market size and its growth potential. Thus, a country with strong business regulations for foreign firms is likely to attract lower FDI inflows and low-quality investment projects (Blalock & Gertler, 2008; World Bank, 2011).

Besides, there are many empirical studies regarding the impact of traditional determinants of FDI, but not that much considering the direct association between the Doing Business Index and FDI concerning Latin America; further, those studies were carried out over a short period. Consequently, this study is necessary to fill this gap.

## **Chapter 2: Literature Review**

#### 2.1. Foreign Direct Investment in Latin America

The United Nations Conference for Trade and Development (UNCTAD) defines Foreign Direct Investment (FDI) as "an investment linking a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise)" (UNCTAD, 2008).

In Latin America, FDI has performed dissimilarly over the last 30 years, with two sustained growth cycles. The first occurred in the 1990s (context of structural reforms and macroeconomic stabilization in most of the region) and the second between 2003 and 2012 (essentially motivated by good economic performance in the heat of the commodities boom). This last period of growth was first temporarily interrupted by the global systemic crisis unleashed in 2008, and then definitely by the end of the price boom (Garcia & López, 2020). Thus, the FDI arriving in Latin America, which had reached USD 200 billion annually in 2011-2012, was less than USD 170 billion in 2019 (graph 1).

Analyzing the region's participation in the FDI generated at a global level, it is observed that it peaked around 13% in 1997, primarily due to the impacts of the privatization process in which many Latin American countries embarked on those years. It entered a descending phase given the progressive exhaustion of that process and the crises unleashed in some South American countries (especially Argentina and Brazil), which made the region lose its attractiveness for external investors (UNCTAD, 2008).

In the commodity boom, between 2011 and 2013, FDI returned to levels similar to those of 1997, then observed a new decline in subsequent years. In 2019, FDI grew by 10.3% compared to 2018. FDI inwards to Latin America reached up to USD 164.2 billion, representing 10.7% worldwide.

It was driven by increased flows to Brazil (+20.4%), Chile (+62.9%), and Colombia (+25.6%) (UNCTAD, 2020). From a longer-term perspective, the persistence of the region's share in total global FDI is notable; the average of the last five years is around 9%.

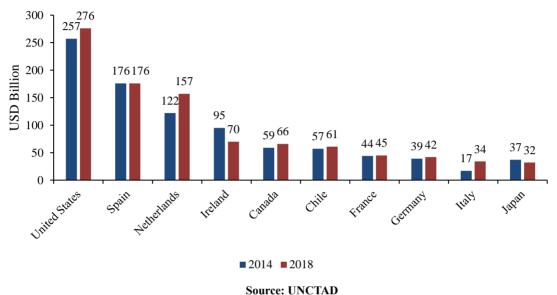
14.0% 250 13.3% 13.0% 12.7% 11.6% 11.6% 12.0% 11.1% 11.0% 200 10.5% 10.1% 10.0% 9.5% 10.0% 9.1%.2% 8.9% 8.5% 8.0% 150 7.8% 8.0% 7.5% 7.0% 6.9% 6.0% 6.0% 100 4.0% 50 2.0% 0.0% 2008 2009 2010 2011 2012 2014 2015 2016 2017 2018 9661 1997 866 666 2000 2002 2003 2004 2005 2007 2001 FDI as % of total FDI in USD

Graph 1: FDI in Latin America 1990 - 2019

Source: UNCTAD

An analysis of the top 10 economies in 2014 and 2018 (graph 2) presents evidence that the United States is still the biggest investor in the region, followed by Spain, Netherland, Ireland, Canada, and Chile; all of these economies are characterized for being market-driven economies where the business regulations play a crucial role.

Graph 2: Top 10 Investors economies by FDI stock, 2014 and 2018



Source: UNCTAD

Further, the presence of China in the region has increased considerably in the last years. In 2019, the total projects announced for Chinese companies reached up to USD 10,827 million; it represented a compound annual growth rate of 58% in the last four years (table 1). China's sudden spike in FDI can be understood as part of its strategy for relevance and collaboration with Latin America. China is also promoting a state-led policy of development in the region, where rising global investments could mean increasing influence in the international arena (Avdendano, Melguizo, & Miner, 2017; Dollar, 2017).

Table 1: Announced greenfield FDI projects to Latin America, 2016-2019 (Million USD)

Partner economy	2016	2017	2018	2019	Change
United States	17515	14920	17943	19204	3.12%
Spain	10439	10506	9724	16079	15.49%
China	2718	3745	1527	10827	58.52%
Mexico	2055	1582	3288	6398	46.02%
Chile	1137	672	2359	2140	23.47%
Peru	61	14	322	270	64.19%

**Source: UNCTAD** 

Additionally, a sector analysis provides the fact that the service sector, mainly electricity provision, has increased considerably in 2019 compared with 2018. The manufacturing industry is still a key destination for FDI in the region and registers the second-largest growth. The primary sector decreased by 40.3% in 2019 compared with 2018, explained by the decline in commodity prices in the last years (UNCTAD, 2019).

Table 2: Announced greenfield FDI projects by sector to Latin America, 2018-2019 (Million of USD)

Sector	2018	2019	Change
Primary	13445	8026	-40.3%
Manufacturing	26320	41204	56.6%
Food, beverage, and tobacco	4250	3147	-26.0%
Paper	1598	5526	245.8%
Basic metal and metal products	2348	4405	87.6%
Motor vehicles	6676	10087	51.1%
Services	38755	63084	62.8%
Electricity	8008	25701	220.9%
Transportation	5579	8270	48.2%
Accommodation	7506	6691	-10.9%
Information and communication	8264	9272	12.2%
Financial and insurance act.	3169	3626	14.4%

**Source: UNCTAD** 

In summary, we can mention that, although in recent years there has been a frequent slowdown in global FDI since the 2008 crisis, international investment flows continue to be high in the historical comparison if they are measured by the relationship between the flows of FDI and the size of global investment (UNCTAD, 2019). In Latin America, similar behavior has been observed, although the stability of the region's participation in global FDI in recent decades stands out. Undoubtedly, the current crisis unleashed by COVID-19 puts a note of caution on FDI's evolution in the coming years. Its latest Report on World Investment, UNCTAD (2020) estimates a 40% drop in FDI inflows by 2020 and a further drop between 5 and 10% by 2021.

#### 2.2. Advantages of FDI

As it has been already mentioned, FDI has become renowned during the last decades, this phenomenon has been driven by the internationalization of open economies (Chirilla-Donciu, 2013; De Llanos, 2018). Empirical evidence suggests that it is possible to boost economic performance through the active promotion of FDI because the evidence shows that, especially in economies in transition, it stimulates technological spillovers, adoption of new technologies for local companies, and enhance diversification (De Llanos, 2018).

Supporting this argument, some research such as Blalock and Gertler (2008) and Zhu (2010) highlight that those technological spillovers created by FDI are evident through the increase in productivity, innovation, and adoption of new processes. Therefore, FDI is seen as a tool for enhancing developing economies (Melnyk, Kubatko, & Pysarenko, 2014; De Llanos, 2018).

Abebe and Serafinelli (2018) and De Llanos (2018) also reveal that foreign enterprises not only attract new economic activities, but also local

companies benefit from hiring personnel from the foreign companies, copying their business model, and through a direct relationship with costumers and suppliers.

Beyond the direct effects of FDI, indirect effects also matter those that impact the entire host economy. Within this framework, Garcia and López (2020) focus their analysis on identifying possible positive spillovers for local firms in FDI recipient countries; these can be horizontal or vertical. They define that horizontal spillovers arise when the entry of new multinational enterprise (MNEs) or the increase in the competitiveness of already established subsidiaries can raise the level of competition in the domestic market and encourage local firms that compete with foreign firms to increase their productivity and improve the quality of their products (imitation, innovation, new investments). In contrast, vertical spillovers arise when local firms can benefit from the technologies and organizational practices of MNEs, through the higher quality, cost, and delivery requirements that subsidiaries usually demand of their suppliers and the eventual technical assistance they provide to satisfy those requirements. The clients of MNEs could also receive positive impacts through the availability of new or better machinery, inputs, or services.

In contrast, some scholars argue that in some cases FDI could not lead to a sustainable and long-term perspective development. There are cases where FDI could not adapt in the host economy and just exploit the country's resources and then return profits to headquarter, which together with the firms' subsidiaries import of inputs would have negative effects on the balance of payments of the host economy (Gerlach & Liu, 2010; Olafur & O.M., 2015; De Llanos, 2018).

#### 2.3. Determinants of FDI

Understanding the factors that make a country attractive for FDI

has been a recurring question in the literature, which is still open despite empirical studies on the subject. To a large extent, the relevance of different determinants varies according to the type of strategies and motivations pursued by FDI, the characteristics of the countries of origin and destination, and the sectors involved. Also, determinants have changed over time according to the global economy's functioning models and dominant economic policy regimes in various periods.

The literature on the determinants of FDI is pervasive and diverse in theoretical frameworks and empirical results. A consensus is lacking on the main factors capable of influencing the location decisions of MNEs. The lack of consensus is explained, to some extent, by the use of different variables, samples, analysis periods, and analytical tools. For this study's purpose, this section is focused on the analysis of the most frequently cited papers.

FDI determinants have been studied for a long time. The classical model was developed by Dunning (1973, 1981), which provides the OLI paradigm (ownership, location, and internationalization). Ownership advantages referred to access to natural resources, human capital, high-level technological supplies, and the ability to innovate and differentiate products or services (Aleksandruk & Forte, 2016). Location advantages refer to differences in endowments between the countries or location attractiveness, such as lower labor cost, transport cost, market risk, and growth perspective (Miniesy & Elish, 2017; Rasciute & Downward, 2017). The internalization factor means that firms must participate and take advantage of the opportunities of FDI in terms of more return to investment rather than granting licenses (Aleksandruk & Forte, 2016; Miniesy & Elish, 2017).

After Dunning's works (1973, 1981), many scholars have been trying to determine, empirically, the critical factors for attracting FDI (see table 3). This study analyzes these factors into three main approaches. The first and more predominant approach sees FDI as market-oriented, driven

by the host market's size and growth potential, economic stability, income level, infrastructure quality, and openness. The second approach sees FDI as being resource-oriented, driven by the existence of specific natural resources or other key resources like a specialized labor force. Moreover, the third approach sees FDI as institutional oriented, driven by the business regulation and the quality of institutions in the host country.

Resmini (2000) studies FDI in the manufacturing sector for countries in Central and Eastern Europe. She finds that foreign investors prefer large markets with high growth prospects, while Bevan and Estrin (2000) present similar results; transition economies with larger economies also attract more FDI. Resmini (2000) also finds that mostly vertical FDI flows benefit from increasing openness, as might be expected in a sector for which international trade is critical.

Botrić and Škuflić (2006) analyze FDI in the service sector in Southeast European countries over the period 1996- 2002. They find that foreign investors prefer large markets and look for the low cost of a well-educated labor force in those countries compared with others in Europe. Consequently, they suggest that the availability of human resources and the cost associated with them are the most important determinants of higher FDI in the service sector.

More recently, Anderson and Gonzalez (2012) agree with the previous works done by Resmini (2000) and Bevan and Estrin (2000). They suggest that broader markets bring more benefits and facilitate mass production; thus, companies can produce at a competitive level. In the past couple of decades, they believe a well-educated labor force in Central and Eastern European countries has been a critical factor in attracting more FDI; these countries are also seen as an entry point in the vast and well-heeled European market.

In the case of African countries, some authors present similar findings regarding the main determinants of FDI. The study of Asiedu

(2006) focus on panel data for 22 African countries over the period 1984-2000, Cleeve (2013) focus on cross-sectional time-series data on 16 Sub-Saharan African countries over the period 1900-2000, Mohamed and Sidiropoulos (2010) focus on panel data for MENA countries (referring to the Middle East, North Africa, Afghanistan, and Pakistan) over the period 1985-2000, and Mhlanga, Blalock, and Christy (2010) focus on Southern African Development Community region. The four studies suggest that natural resources and large markets are the main determinants of FDI.

Asiedu (2006) also argues that countries which receive smaller FDI would be more attractive if they implemented reforms that liberalize their economies, showing the importance of open economies and business regulation for attracting higher FDI; moreover, Cleeve (2013) supports that variables including in the institutional approach could be significant.

The study conducted by Wahid, Sawkut, and Seetanah (2009) also focuses on factors boosting FDI recipient countries' attractiveness. It is based on a sample of 20 African countries over the period 1990-2005. The abundance of natural resources is reported to be positive and the most significant factor. This finding is in line with other authors (Kinoshita & Campos, 2004; Asiedu, 2006; Cleeve, 2008; Mohamed & Sidiropoulos, 2010; Mhlanga, Blalock, & Christy, 2010). The openness of the host country has a positive impact on FDI and is in line with the fact that an efficient environment with more exposure to trade is likely to attract foreign firms.

Focus on Asian countries, Sahoo (2006) analyses data from five South Asian countries (India, Pakistan, Bangladesh, Sri Lanka, and Nepal) and finds that market size, labor force growth, infrastructure, and trade facilities are significant determinants of FDI. However, market size and labor growth are the most significant and influential.

In China's specific case, Ali and Guo (2005) suggest that China's huge potential market size is the most significant factor for FDI inflow in

China, which is in line with both theory and previous studies. It seems China's large population and fast-growing economy are a peerless combination for foreign firms. Some authors study the motivations of China's outward FDI by taking a large sample of 30 Asian countries during the period 2013 – 2016. They provide empirical evidence that two types of natural resources, ores, and metals, yield a positive and significant result for middle-income countries (Kamal, Zheng, Ullah, & Xia, 2019).

The study of Vijayakumar, Sridharan, and Rao (2010) focus on the BRICS countries (Brazil, Russia, India, China, and South Africa) and analyses a data set consisting of yearly observations for the period 1975 – 2007. The study finds that economic stability, growth prospects, and trade openness factors seem to be the potential determinants of FDI in BRICS countries.

Not long ago, Hornberger, Battat, and Kusek (2011) analyzed the investment motivation from nearly 30,000 FDI projects over ten years in the fDi Markets database1. The projects in developing economies, most of them in Latin America, identify that the three most important factors that investors consider are the potential growth of the host economy, the proximity to key markets, and business regulations. They also infer that improvements in the investment climate may have helped increase FDI flows in developing countries.

Regarding Latin American countries, Nunes, Oscategui, and Peschiera (2006) find the variables such as market size, the economy's openness, macroeconomic stability (inflation), wages, infrastructure, and human capital are determinants of FDI flows in fifteen economies in Latin America. The study observes that the infrastructure, market size potential, and inflation positively influence, and the wage rate negatively influences

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<sup>&</sup>lt;sup>1</sup> fDi Markets, a service from the Financial Times, is the most comprehensive online database of cross border greenfield investments available, covering all countries and sectors worldwide.

FDI. Also, Nunes, Oscategui, and Peschiera (2006) agree with Hornberger, Battat, and Kusek (2011) that business regulation in the host country is essential element investors consider, and improvements of those regulations can impact positively the amount of FDI that countries attract.

Furthermore, a study analyzing FDI in 9 Latin American countries (Peru, Mexico, Panama, Nicaragua, Brazil, Costa Rica, Argentina, Bolivia, and Ecuador) finds that the most important determinants of FDI are quality of infrastructure, the openness of the economy, and regulatory framework. With the last determinant "regulation framework," the author also points out a negative correlation with higher and stronger business regulations (Quazi, 2007).

All these studies that try to determine FDI's main factors remark the market-oriented approach as a common factor in all the geographical areas. The resource-oriented approach is seen to be determinant in Asia and Africa. In Latin America, the authors suggest that the institutional-oriented approach plays a decisive role, driven by the host country's business regulation.

In fact, over the last fifteen years, many Latin American countries have been involved in a proactive process of reforming their business regulation to facilitate their business climate and attract more FDI. For example, Colombia has implemented more than 30 reforms in the last 15 years and continues to be the county that has implemented more reforms in the region (World Bank, 2020). Colombia has reduced the requirements for starting a new business, it has made significant progress in trading across border by simplifying the export required documents and cutting document preparation time by more than hours.

In summary, we can say that investors consider their location decision based on a combination of factors in different geographic areas (table 3).

Table 3: Determinants of FDI by geographic area

Geographic area	Approach	Determinants	Author (s) (year)
Central and Eastern Europe	Market-oriented	Market size, economic growth perspective	Resmini (2000), Bevan and Estrin (2000), Anderson and Gonzalez (2012)
China	Market-oriented	Market size	Ali and Guo (2005)
	Resource oriented	Natural resources	Kamal et al. (2019)
Asia	Market and resource- oriented	Market size, labor force	Sahoo (2006)
Africa	Market and resource- oriented	Market size, natural resources	Asiedu (2006), Cleeve (2008), Wahid, et al., (2009), Mohamed and Sidiropoulos (2010), and Mhlanga et al., (2010)
	Institutional	Open economies, business regulation	Asiedu (2006)
	oriented	Macroeconomic stability, property rights protection	Cleeve (2008)
BRICS	Market-oriented	Economic growth perspective, trade openness	Vijayakumar et al. (2010)
Latin America	Market and institutional oriented	Growth potential, proximity to markets, business regulation	Nunes et al (2006), Quazi (2007), Hornberger et al., (2012)

Source: Compiled by the author.

# 2.4. Doing Business Index

Doing business is a series of annual studies examining the

regulations that boost business activity and those that restrict it. It is founded on the principle that economic activity benefits from clear rules: rules that allow voluntary exchanges between economic actors, set out strong property rights, facilitate the resolution of commercial disputes, and provide contractual partners with protections against arbitrariness and abuse. Such rules are much more effective in promoting growth and development when they are efficient, transparent, and accessible to those for whom they are intended (World Bank, 2020).

The Doing Business report covers 12 areas of business regulation. Ten of these areas "starting a business," "dealing with construction permits," "getting electricity," "registering property," "getting credit," "protecting minority investors," "paying taxes," "trading across borders," "enforcing contracts," and "resolving insolvency" are included in the ease of doing business score and ease of doing business ranking. Doing business also measures regulation on employing workers and contracting with the government, which are not included in the ease of doing business score and ranking (Land Portal Foundation, 2020; World Bank, 2020).

Furthermore, in more than 20 Latin American economies, at least one regulatory reform was implemented in 2019 to improve the business climate and eased the doing business. Chile is the country with the best position in the Doing Business Index, this country ranks 59, followed by Mexico (60), and Colombia (67). In 2019, the total countries implemented more than 30 reforms to ease the doing business (World Bank, 2020).

#### 2.5. FDI and Doing Business Index

Nowadays, there is growing concern regarding Doing Business indicators and FDI; therefore, many authors have studied the empirical relationship (table 4). Empirical evidence suggests that improvements in Doing Business indicators, which indicate the quality of institutions and

regulatory reforms, attract higher FDI (Shahadan, Sarmidi, & Jan Faizi, 2014). The leading assumption is that a better-rated business climate is more feasible to attract a more significant amount of FDI.

Additionally, many authors consider business regulation as part of the critical determinants for FDI and have developed a large body of literature that links business regulation and FDI. For example, Wagle (2010) presents evidence that FDI regulations matter for attracting higher FDI inflows, he suggests that business regulations are a relevant factor for foreign investors in their decision process on where to invest. The Work Bank indicates that economies with complex rules and inefficient foreign companies' processes receive fewer new FDI projects and smaller FDI (World Bank, 2011).

Tarzi (2009) analyzes Nigeria, Indonesia, and India's government efforts to attract FDI and concludes that firms are expecting to invest in the countries where there is less government control of their operational affairs. Additionally, Bruhn (2011) shows that a reform, decreasing the entry regulations in Mexico, increases the number of businesses registered. Klapper, Laeven, and Rajan (2006) and Barseghyan (2008) suggest similar findings regarding business regulation's effect; they indicate that high cost in entry regulations reduce the number of new companies created.

Accordingly, the Doing Business report offers policymakers a benchmarking tool that has the advantage of studying business regulation as a determinant of FDI by laying aside each country's comparative advantage. This consists of a set of twelve indicators that directly affect that business's environment. Authors present evidence that the ease of doing business is a comparable tool to measure business regulation across countries around the world, and they suggest that a better position in the Doing Business report is associated with economic growth and development (Djankov, McLiesh, & Ramalho, 2006; Lawless, 2009; Gillanders & Whelan, 2010). For example, Djankov, McLiesh, and

Ramalho (2006) use the Doing Business report 2004 in single cross-section data to measure the regulations that govern the business climate in 135 economies, and the annual growth rate of GDP per capita in 10 years as the dependent variable. They conclude that there is enough evidence that the business climate is a key determinant for higher growth rates.

More findings are provided in a study that focuses on the effect that business regulations have on FDI that countries attract. The study uses The Doing Business Index to capture the costs companies face in the given country over 2004-2009. Authors point to the relationship between FDI and business regulation as significant just for middle-income countries and not for the riches countries (OECD) and the most impoverished regions such as Sub-Saharan Africa. Also, they present evidence that "starting a business," "getting credit," and "trading across borders" are the only statistically significant indicators of the Doing Business Index, being "trading across borders" the most significant. In contrast, "dealing with construction permits," "registering property," "enforcing contracts," "protecting minority investors," and "closing a business" is not statistically significant for FDI (Corcoran & Gillanders, 2014).

Contrasting the results of Corcoran and Gillanders (2014), Wagle (2010) suggests that both the number of requirements to establish a subsidiary owned by foreign investors and the resolving insolvency regime have significant effect on FDI.

In another study, Blonigen and Piger (2014) also examine the effect that business regulations have on FDI that countries attract. However, contrary to the results of Corcoran and Gillanders (2014), they suggest that the Doing Business indicators that they included (resolving insolvency, enforcing contracts, registering property, and starting a business) have a low inclusion probability. It is critical to the point that they use just four of the twelve indicators.

Though a study conducted for Jayasuriya (2011) partially disagrees

with Blonigen and Piger (2014), Jayasuriya (2011) makes use of data for more than 80 countries in four years period, further includes the doing business rank as a whole and six indicators of the Doing Business Index where 3 of the four indicators used for Blonigen and Piger (2014) were included, also uses governance indicators as control variables. The author presents evidence that a better score in the ease of Doing Business will likely attract more FDI. Furthermore, he argues that the relationship is significant for the average country.

Additional, Jayasuriya (2011) also presents evidence that out of six indicators, just three are statistically significant and relevant for FDI such as "paying taxes," trading across borders," and "enforcing contracts" while "starting a business," "registering property," and "protecting minority investors" have a low probability of having an impact on FDI. Finally, the author presents evidence that a better score is not significant for FDI when just developing countries are taken into consideration. However, it is important to point that Jayasuriya's research is based on information for four years.

A similar study covering a more extended period of 2004 to 2010 was conducted by Bayraktar (2013). He just uses four indicators of the Doing Business report (starting a business, getting credit, protecting investors, and closing a business) and divided countries into groups as follows "BRIC," "European Union," and "United States." In contrast to Jayasuriya (2011), Bayraktar (2013) finds that countries with the best business regulations (according to the Doing Business Index) tend to attract greater FDI. A better position in the index for developing countries (BRICS) could be a determinant for a higher FDI amount.

Lastly, a recent study analyses the effect of the Doing Business Index and Foreign Direct Investment in a sample of more than 170 economies. The authors use five indicators for over five years. The study suggests that the "enforcing contracts" indicator has a positive and

significant impact, while "getting credit" and "registering property" indicators have a negative and significant impact. Nevertheless, "starting a business" and "paying taxes" indicators have no significant effect on FDI (Hassan, Shafiq, & Basit, 2018).

Table 4: Summary of studies: FDI and Doing Business Index

Author (s) (year)	Main findings
Klapper, Laeven, and Rajan (2006) and Barseghyan (2008)	High cost in entry regulations reduces the number of new companies created.
Djankov, McLiesh, and Ramalho (2006); Lawless (2009); Gillanders and Whelan (2010); Bayraktar (2013)	A better position in the Doing Business report is associated with economic growth and development.
Tarzi (2009)	Firms are expecting to invest in countries where there is less government control of their operational affairs.
Wagle (2010); Jayasuriya (2011); Shahadan, Sarmidi, and Jan Faizi (2014)	Improvements in Doing Business indicators lead to attracting higher FDI inflows.
Wagle (2010)	The number of procedures required to start a foreign- owned business and the arbitration regime's strength has the most significant and robust effect on FDI.
Bruhn (2011)	A reform, decreasing the entry regulations in Mexico, increases the number of businesses registered.
Jayasuriya (2011)	The relationship to be statistically significant for the average country; however, when focusing on developing countries in isolation, the relationship is insignificant. He shows that when regressing relevant indicators of Doing Business, just 3 of the six indicators are statistically significant and relevant for FDI, such as "paying taxes," trading across borders," and "enforcing contracts."
Corcoran and Gillanders (2014)	The relationship between FDI and business regulation is significant for middle-income countries and not for the riches countries (OECD) and the most impoverished regions such as Sub-Saharan Africa. They present evidence that "starting a business," "getting credit," and "trading across borders" are the only statistically significant indicators of the Doing Business Index, being "trading across borders" the most significant.

Blonigen and Piger	The Doing Business indicators that they included have
(2014)	a low inclusion probability.
Hassan, Shafiq, and Basit (2018)	Enforcing contracts indicator has a positive and significant impact on FDI while getting credit and registering property indicators negatively and significantly. Nevertheless, starting a business and paying taxes indicators have no significant effect on FDI.

Source: Compiled by the author.

## **Chapter 3: Methodology**

#### 3.1. Research Design

To examine the research questions, it requires the triangulation of both qualitative and quantitative approaches to describe and understand the relation between the ease of Doing Business score, Doing Business indicators, and foreign direct investment. The quantitative approach is based on secondary data, and the units of analysis are the countries in Latin America. This analysis is based on panel data from 21 countries, in which information on each indicator is available for the period 2005 to 2018 (this period covers the Doing Business Index' publication from 2006 to 2019) and from 2009 to 2018 for the ease of Doing Business score. Further, the qualitative analysis is based on a single case study of Nicaragua and uses primary data.

## 3.2. Data and Methodology

This study uses both primary and secondary sources of data collection. In the case of the qualitative analysis, primary data is collected through in-depth interviews. Thus, each question is grouped into seven main areas of analysis: the relationship between improving the business climate and FDI, government's efforts to improve the investment climate, Doing Business Index as a proxy of the business climate, Doing Business Index and FDI, Indicators of the Doing Business Index, benefits from FDI, and current challenges in the business climate.

For the quantitative analysis, the independent variables are obtained from the Doing Business Index, an annual report introduced by the World Bank in 2003. The Doing Business report presents data in two forms, the ease of Doing Business score and the ease of Doing Business

ranking. This study uses the Doing Business indicators measured in terms of the ease of Doing Business score. According to the World Bank, "The ease of Doing Business score helps assess the absolute level of regulatory performance over time. It captures each economy's gap from the best regulatory performance observed on each of the indicators across all economies in the Doing Business sample since 2005. One can both see the gap between an economy's performance and the best performance at any point in time and assess the absolute change in the economy's regulatory environment over time as measured by Doing business. An economy's ease of Doing Business score is reflected on a scale from 0 to 100, where 0 represents the lowest and 100 represents the best performance" (Nangpiire, Rodrigues, & Adam, 2018; World Bank, 2020).

This research considers the ease of Doing Business score as an independent variable, calculated through simple averaging of scores obtained for each economy's indicators into one score. Further, it considers the seven indicators available for the entire fourteen-year period from 2005 to 2018.

Second, for our dependent variable "FDI" of 21 economies of Latin America, the study uses the amount of FDI inwards reported by the United Nations Conference on Trade and Development (UNCTAD).

Additionally, control variables are necessary, and this study is using six control variables such as GDP current prices (GDP), international trade as a share of GDP (Trade), political stability (PS), inflation GDP deflator (inflation), GDP growth rate (GDP growth), and GDP per capita (GDPcapita). These control variables are used in different combinations to test if the results are robust enough and also, neutralize the possibility of multicollinearity.

Consequently, this research follows related studies that embark on FDI (Walsh & Yu, 2010; Jayasuriya, 2011) and uses the Arellano-Bond methodology that accounts for dynamic panel data with fixed effects.

"Dynamic panel models are regression models that include both cross-sectional effects and a lagged dependent variable. They are a powerful tool for dealing with omitted factors whose effects persist over time. Because a lagged dependent variable is included as a regressor, standard panel estimators such as the within estimator are biased. The estimation that is based on the generalized method of moments (GMM) alleviates the bias if you choose an appropriate set of instrumental variables" (Gutierrez & Elkhattabi, 2017).

For this study, the following model is regressed:

$$Y_{it} = \alpha + \gamma Y_{i,t-1} + \beta X_{it}' + \phi Z_{it} + \lambda W_{it} + u_i + \varepsilon_{it}$$
 (1)

Where Y represents FDI, X represents a vector of macroeconomic variables (these variables are included in the list of control variables), Z represents the variable(s) of interest (ease of Doing Business score and seven indicators of the Doing Business Index), W represents the governance indicator (Political stability, included in the list of control variables) and u represents the country fixed effect. Aforementioned, the macroeconomic variables, the ease of Doing Business score, doing business indicators, and the governance indicator are used in different combinations to test the robustness of results and counter possible multicollinearity. Further, a separate model is estimated using an additional economic classification dummy variable, testing if there is a difference in the effect respecting different economic levels (Jayasuriya, 2011).

A difference in difference approach is used to remove the fixed effects from equation (1), such that the following equation is regressed:

$$\Delta Y_{it} = \Delta X_{it} + \Delta Z_{it} + \Delta \varepsilon_{it}$$
 (2)

Further, Klapper and Love (2010) produce models focusing on countries that have undertaken significant reforms in isolation. Similarly, for this paper's purpose, a model is produced for those countries that have improved their ease of Doing Business scores above the average (average

is 1.13, see table 5) comparing the score of 2009 with 2018. So, a separate analysis is undertaken, including a total of 12 countries. This is important given that Klapper and Love (2010) suggest that those countries making a vast number of business reforms will be positively affected by new foreign enterprises in the country. The analysis, in isolation, taking just the countries that have improved their scores above the average would show whether the Klapper and Love (2010) conclusion translates into more FDI in Latin American countries; for example, whether countries that have significantly improved their scores conducting many reforms are more likely to attract a higher number of FDI projects.

Table 5: Comparison of Ease of Doing Business score 2009-2018

0	Ease of Doing Business score			
Countries	2009	2018	Difference	
Argentina	57.80	58.20	0.40	
Belize	59.40	55.30	-4.10	
Bolivia	50.40	51.60	1.20	
Brazil	55.10	58.30	3.20	
Chile	69.70	72.30	2.60	
Colombia	64.40	69.20	4.80	
Costa Rica	56.60	68.80	12.20	
Dominican Republic	64.40	59.30	-5.10	
Ecuador	57.30	57.60	0.30	
Guatemala	60.30	62.50	2.20	
Guyana	56.80	55.60	-1.20	
Honduras	59.20	56.00	-3.20	
Mexico	63.30	71.60	8.30	
Nicaragua	53.10	54.50	1.40	
Panama	65.00	66.90	1.90	
Peru	66.80	68.30	1.50	
Paraguay	61.90	58.50	-3.40	
El Salvador	62.40	64.90	2.50	
Surinam	46.60	47.40	0.80	

Uruguay	59.00	61.40	2.40
Venezuela	37.10	32.10	-5.00
Average			1.13

\*Scores above the average in bold and italic. *Source*: Compiled by the author.

Robust statistical instruments are used to ensure that there is no correlation between the dependent variable and the error term, the first lagged level and lagged differences of the endogenous variables and exogenous variables are used as instruments as per the system GMM approach (Blundell & Bond, 1998).

The instruments used in this research are statistically more robust than those under the traditional two-squares least squares approach, making the results more effective (Roodman, 2009). The system GMM approach also allows observation from t-1 to be included in the analysis. The endogenous lags are restricted to one time period; both the first and second lags are regressed separately to ensure the results' validity (Jayasuriya, 2011). To reduce the number of instruments and improve the prospects that the p-value for the Sargan test provides an examination of overidentifying restrictions, that is, a test of the null hypothesis that the instrument set is appropriate for the data at hand. If the p-value is less than 0.0001, we reject that null hypothesis. Typically, rejecting the null hypothesis would indicate a problem with the instrument set (Gutierrez & El-khattabi, 2017).

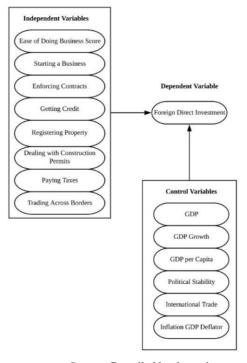
Additionally, to deal with the inverse relationship between foreign direct investment and business regulations, this research adopts a qualitative analysis based on a single case study to better understand the relationship between the variables. This analysis is based on primary data and is analyzed under the Thematic Content Analysis method.

Thematic Content Analysis (TCA) is a descriptive presentation of qualitative data linking common answers for analysis. This is one of the most foundational qualitative methods. The research should be objective in conducting a TCA, it is necessary to group the common themes to express the common opinions across respondents. Some interpretation is required to organize and name the common themes, but the researcher has to be careful to kept interpretation at the minimum level (Anderson, 2007).

#### 3.3. Conceptual Framework

This study will be conducted through panel data and case study analysis. It expects to determine the relationship between business regulations (measured for seven indicators of the Doing Business Index, the ease of Doing Business score) and FDI. The following figure (figure 1) illustrates the conceptual framework, which shapes the present study to answer the research questions. It also shows how to find the correlation between the variables.

Figure 1. Conceptual Framework



Source: Compiled by the author.

# 3.4. Conceptualization and Hypothesis

For the purpose of the current study, foreign direct investment refers to the value of foreign direct investment inward. The control variable GDP refers to the measure of a country's economic output. GDP growth is a rate that measures how fast the economy is growing or decreasing when the rate is negative. GDP per capita refers to the measure that breaks down a country's GDP per person. Political stability refers to the perceptions of the likelihood of political instability and politically motivated violence, including terrorism (Epaphra & Massawe, 2017), (World Bank, 2018). International trade means the exchange of capital, goods, and services across international borders, and inflation shows the rate of price change in the economy as a whole.

The ease of Doing Business score refers to the average of ten indicators' score. Thus, we hypothesis as follows:

H1. The Doing Business Index, as a whole, is a significant and positive stimulus to FDI for countries in Latin America.

The indicator of starting a business refers to the number of procedures, time, cost, and paid-in minimum capital requirement (World Bank, 2020). Thus, we hypothesis as follows:

H2. The indicator of starting a business is significant and important to FDI in Latin America.

The indicator dealing with construction permits refers to the procedures, time, and cost to build a warehouse—including obtaining the necessary licenses and permits, submitting all required notifications, requesting, and receiving all the required inspections, and obtaining utility connections (World Bank, 2020). Thus, we hypothesis as follows:

H.3. The indicator of dealing with construction permits is significant and important to FDI in Latin America.

The indicator registering property refers to the steps, time, and cost involved in registering property (World Bank, 2020). Thus, we hypothesis as follows:

H.4. The indicator registering property is significant and important to FDI in Latin America.

The indicator of getting credit refers to credit reporting systems' strength and the effectiveness of collateral and bankruptcy laws in facilitating lending (World Bank, 2020). Thus, we hypothesis as follows:

H.5. The indicator of getting credit is significant and important to FDI in Latin America.

The indicator paying taxes refers to the taxes and mandatory contributions that a medium-size company must pay or withhold in a given year, as well as the administrative burden of paying taxes and contributions (World Bank, 2020). Thus, we hypothesis as follows:

H.6. The indicator of paying taxes is significant and important to FDI in Latin America.

The indicator trade across borders refers to the time and cost associated with the logistical process of exporting and importing goods (World Bank, 2020). Thus, we hypothesis as follows:

H.7. The indicator trade across borders is significant and important to FDI in Latin America.

The indicator enforcing contracts refers to the time and cost to resolve a standardized commercial dispute and a series of good practices in the judiciary (World Bank, 2020). Thus, we hypothesis as follows:

H.8. The indicator of enforcing contracts is significant and important to FDI in Latin America.

# 3.5. Operationalization

The concepts mentioned above will be measured as table 6 describe

in order to answer the research questions.

**Table 6: Operationalization of variables** 

Variable	Classification	Operationalization	Source
FDI	Dependent variable	FDI	UNCTAD
Ease of Doing Business score	Independent variable	Doing business score (0-100)	Doing Business
Starting a business	Independent variable	Starting a business score (0-100)	Doing Business
Enforcing contracts	Independent variable	Enforcing contracts score (0-100)	Doing Business
Getting credit	Independent variable	Getting credit score (0-100)	Doing Business
Registering property	Independent variable	Registering property score (0-100)	Doing Business
Dealing with constructions permits	Independent variable	Dealing with constructions permits score (0-100)	Doing Business
Paying taxes	Independent variable	Paying taxes score (0-100)	Doing Business
Trading across borders	Independent variable	Trading across borders score (0- 100)	Doing Business
GDP	Control variable	Official USD amount reported	ECLAC <sup>2</sup>
GDP growth	Control variable	Official rate (%) reported	ECLAC
GDP per capita	Control variable	Official USD amount reported	ECLAC
Political stability	Control variable	Political stability percentile rank (0- 100)	Worldwide Governance Indicators
International trade	Control variable	Total trade as a share of GDP	ECLAC
Inflation GDP deflator	Control variable	Annual value reported	Worldwide Governance Indicators

Source: Compiled by the author.

 $^{2}\,$  ECLAC: Economic Commission for Latin America.

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# 3.6. Definition of Population

## 3.6.1. Quantitative analysis

The Doing Business Index measures a total of 32 economies in Latin America; however, this study is going to consider 21, excluding 11 Caribbean economies (Table 8). These economies were not included because they are not comparable to the rest of Latin America.

In terms of FDI, the average amount of the 11 excluded economies is USD 313 million over the last 14 years, much lower than the average amount of the other economies, USD 6,719 million in the same period. Also, considering FDI as a share of GDP, this ratio reaches 8.9% in these 11 economies comparing with 3.9% of the other economies during the last 14 years. Even when the FDI they attract is relatively small, the share of FDI/GDP is more than twice comparing the other economies because these Caribbean countries have smaller GDP than the others.

Moreover, according to ECLAC, Caribbean economies face the typical challenges of small economies such as small domestic markets. The manufacturing sector suffers from relatively high costs in terms of transportation or energy (situation strongly related to their size and their conditions as islands). These small countries face more pressingly the challenge of excessive specialization in one single industry (De Groot & Pérez Ludeña, 2014).

Table 7: Latin American economies in the Doing Business Index

Economies: part of the study		Economies: excluded from the study	
Argentina	Guyana	Antigua and Barbuda	
Belize	Honduras	Bahamas	
Bolivia	Mexico	Barbados	
Brazil	Nicaragua	Dominica	
Chile	Panama	Grenada	

Colombia	Paraguay	Haiti
Costa Rica	Peru	Jamaica
Dominican Republic	Suriname	Saint Kitts and Nevis
Ecuador	Uruguay	Saint Lucia
El Salvador	Venezuela	Saint Vincent and the Grenadines
Guatemala		Trinidad and Tobago

Source: Compiled by the author.

# 3.6.2. Qualitative analysis

The Doing Business Index data is collected from questionnaires that are fulfilled in every country for private sector practitioners, public servants, scholars, among other relevant professionals. For the Doing Business 2019, the questionnaires were fulfilled for 33 people who stand for the private and public sectors in Nicaragua's case. The qualitative analysis will conduct ten in-depth interviews with both private and public officials.

# **Chapter 4: Analysis and Discussion of Results**

# 4.1. Quantitative analysis

The analysis conducted is based on panel data of 21 economies in Latin America. First, a descriptive analysis was conducted based on the interpretation of mean, standard deviation, and minimum and maximum values for each variable. The econometric model based on the GMM Arellano-Bond methodology that accounts for dynamic panel data was done, considering control variables.

## 4.1.1. Descriptive analysis

The following table (table 8) shows the mean and standard deviation of each variable. The dependent variable (FDI) has a mean of 6,719.7 (Million USD), and the data indicates that the dispersion of the dataset relative to its mean is 13,797.4 (Million USD), it represents more than the double of its mean, so there is a high deviation within the data set. Moreover, the mean of starting a business is 70.9, which is the highest between the explanatory's variables and standard deviation of 13.5. The mean of dealing with construction permits is 60.7 and has the lowest standard deviation (STD= 9.6); registering property has a mean of 63.7 (STD= 10.8); getting credit has a mean of 54.3 and has the highest standard deviation withing the independent variables (STD= 19.6); paying taxes' mean is 55.6 (STD= 18.6), trade across borders shows a mean of 68.3 (STD= 15.3) and enforcing contracts' mean is 52.98 which is the lowest compared with the other explanatory variables (STD=10.2).

**Table 8: Descriptive statistics** 

Variable	Label	N	Mean	Std Dev
Foreign Direct Investment*	FDI	294	6,719.7	13,797.4
Starting a Business	SB	294	70.9	13.5
Dealing with Constructions Permits	DCP	294	60.7	9.6
Registering property	RP	294	63.7	10.8
Getting Credit	GC	294	54.3	19.6
Paying Taxes	PT	294	55.6	18.6
Trade across Border	TAB	294	68.3	15.3
Enforcing Contracts	EC	294	53.0	10.2

\*Million USD

The following table (table 9) presents the minimum and maximum values of each variable. The dependent variable (FDI) has a negative minimum value of 1,180.5 (Million USD), and it corresponds to Uruguay, a country that presented just negative values during the period 2016 – 2018. The main reason for the negative values of FDI was intra-company loans, which registered only negative values between 2016 – 2018, it means there was a return for loans that companies had received from their subsidiaries abroad (UNCTAD, 2019); in contrast, Brazil, the biggest recipient country in Latin America, registers the maximum value (USD 63,845.9 million).

Regarding the independent variables, Venezuela presents the lowest score in the indicator starting a business (25.0), and Panama has the best score in the region (91.9). Guatemala presents the lowest performance in dealing with construction permits (28.6); in contrast, Chile has the best performance (75.5). The minimum value of registering property is 24.3, and it corresponds to Surinam, the maximum is 78.7, and it is for Chile. Surinam also has the worst performance for getting credit (10), and Colombia has

the best performance (90). Bolivia presents the lowest score for paying taxes (12.2); in contrast, Chile has the highest score (84). Venezuela has the worst performance in trading across borders (7.9), while Panama has the best performance (91.9). Surinam has the lowest score in enforcing contracts (25.9); in contrast, Nicaragua has the higher score (65.4).

In summary, among seven independents variables (measured by 7 Doing Business Indicators score) and comparing withing 21 countries in Latin America, Surinam has the lowest score in three, Venezuela in two, and Guatemala and Bolivia in one. For the highest score, Chile is the best in three, Panama in two, and Colombia and Nicaragua in one.

**Table 9: Minimum and Maximum values** 

Variable	Label	Minimum		Max	ximum
variable	Label	Value	Country	Value	Country
Foreign Direct Investment*	FDI	1,180.5	Uruguay	63,845.9	Brazil
Starting a Business	SB	25.0	Venezuela	91.9	Panama
Dealing with Constructions Permits	DCP	28.6	Guatemala	75.5	Chile
Registering property	RP	24.3	Surinam	78.7	Chile
Getting Credit	GC	10.0	Surinam	90.0	Colombia
Paying Taxes	PT	12.2	Bolivia	84.0	Chile
Trade across Border	TAB	7.9	Venezuela	91.9	Panama
Enforcing Contracts	EC	25.9	Surinam	65.4	Nicaragua

\*Million USD

# 4.1.2. Regression analysis

Table 10 presents the regression between the ease of Doing

Business score and FDI (million USD) under different combinations of control variables to test the robustness of results. It shows that the explanatory variable "ease of Doing Business score" is positively significant under several specifications. This result indicates, an increase in one score of the explanatory variable, foreign direct investment will increase to approximately USD 853 million (on average) in the Latin America region. This result is in line with the literature review findings, for example, the studies conducted for Jayasuriya (2011) and Corcoran and Gillanders (2014).

The results suggest that FDI will increase if the government implements reforms that improve, on average, the business climate based on the Doing Business indicators. A higher ease of Doing Business score is associated with higher FDI inwards.

Moreover, in all the cases, the probability (Prob > ChiSq) of the Sargan test for overidentifying restrictions, which is a test of the null hypothesis that the instrument set is appropriate for the data at hand, is higher than 0.0001. Hence, the Sargan test confirms that the data is suitable for the analysis.

Among the control variables, in table 10, models A, B, C, and D, show that the GDP (P <.0001) has a significant and positive relationship with FDI. International trade was included in the five models, and it was significant and positive just in three of them; the result suggests that when we take into consideration GDP growth rate (model C) and we use GDP per capita instead of GDP (model E) international trade is no longer significant. The governance indicator "Political stability" is positively significant in the three different models included (model B, D, and E). Surprisingly, inflation has a positive relationship with FDI and is significant in the four models included (models A, B, C, and E). Sayek (2009) demonstrates that in many cases, inflation may have a positive relationship with FDI inflows since, on the one hand, it affects the diachronic consumption pattern positively and,

on the other, it reduces the costs of the investment. GDP growth was positive and significant in one (model C) of the two models included, and GDP per capita was positive and significant in the model included (model E).

Table 10: Influence of Ease of Doing Business score on FDI
Dependent variable: Value of FDI inward (million USD)
GMM based on the Arellano-Bond Methodology

Variables	Label	Model A	Model B	Model C	Model D	Model E
Ease of Doing	DBS	1064.2	813.3	933.3	854.1	602.3
Business score	DBS	<.0001*	<.0001*	<.0001*	<.0001*	<.0001*
GDP	GDP	0.082	0.078	0.077	0.079	
ODI	UDI	<.0001*	<.0001*	<.0001*	<.0001*	
International	Trade	4013.1	7341.4	321.4	10742.8	1294.0
Trade	Trade	<.0001*	0.0001*	0.8487	0.038**	0.8561
Political	PS		325.0		374.3	190.4
stability	PS		<.0001*		<.0001*	<.0001*
Inflation	Inflation	761.4	659.4	734.3		540.3
Illiation		<.0001*	<.0001*	<.0001*		<.0001*
GDP growth	GDP			14876.4	-8870.8	
ODI giowiii	growth			<.0001*	0.11	
GDP per capita	GDPcapita					0.9
GDP per capita	ОБРСарна					<.0001*
Sargan Test		0.2509	0.2346	0.3466	0.3693	0.4927
No. of observatio	ns	210	210	210	210	210
		1	1			· · · · · · · · · · · · · · · · · · ·

Statistically significant estimates are in bold.

Table 11 presents the regression between the ease of Doing Business score and FDI (million USD) using an economic classification dummy variable to verify if there is a difference in the effect of the ease of Doing Business score respecting different economic levels. To be consistent with the results, the models use the same combination of control

<sup>\*</sup> The variable coefficient is significant at 0, 01% level

<sup>\*\*</sup>The variable coefficient is significant at 0, 05% level

<sup>\*\*\*</sup>The variable coefficient is significant at 0,1% level

variables used in Table 10.

The results in table 11 indicate that a better score in the ease of Doing Business has a different impact on FDI between countries in different economic classification under multiple specifications. An increase in one score will generate, on average, an increase of USD 3,565 million in FDI inward for the upper-middle-income countries comparing with the high-income countries (high-income countries were set as the baseline for comparison). For the lower-middle-income countries, the results are not statistically significant in all five models. This result is in line with the evidence provided by Corcoran and Gillanders (2014); they suggest that the relationship between FDI and business regulations is significant for middle-income countries and not for the high-income countries, as well, for the poorest countries. In table 11, model E uses a different combination of control variables than in table 10. This is due to the use of an economic classification dummy variable in the models; thus, the GDP per capita was not included.

Table 11: Influence of Ease of Doing Business score on FDI with a dummy variable

Dependent variable: Value of FDI inward (million USD)
GMM based on the Arellano-Bond Methodology

Variables	Label	Model A	Model B	Model C	Model D	Model E
Ease of Doing	DBS	1500.6	1165.7	1040.3	819.3	891.1
Business score	DDS	<.0001*	<.0001*	<.0001*	<.0001*	<.0001*
Lower middle	LM	18808.3	4912.6	21186.1	26320.9	27374.9
income	LIVI	0.4228	0.8841	0.2134	0.2832	0.2808
Upper middle	UM	2967.3	3766.4	3170.0	3878.0	4041.4
income	UM	0.0167**	0.0236**	<.0001*	<.0001*	<.0001*
GDP	GDP	0.083	0.074	0.079	0.077	0.077
GDP		<.0001*	<.0001*	<.0001*	<.0001*	<.0001*
International	Trade	1426.6	9182.3	-7920.2	5419.6	
Trade		0.481	0.0171**	0.1808	0.0147**	
	PS		336.1		302.2	258.7

Political stability			<.0001*		<.0001*	<.0001*
Inflation	Inflation	856.4	727.5	919.4		817.9
Illiation	Illiation	<.0001*	<.0001*	<.0001*		<.0001*
CDD grounth	GDP			6882.5	4616.8	5905.2
GDP growth	growth			<.0001*	<.0002*	<.0001*
Sargan Test		0.6196	0.7187	0.2032	0.4795	0.4378
No. of observations		210	210	210	210	210
Model DF		161	160	160	160	160

Statistically significant estimates are in bold.

Table 12 presents the regression, in isolation, between the ease of Doing Business score and FDI (million USD) for those countries that have improved their score above the average. To be consistent with the results, the models use the same combination of control variables used in Table 10. The results indicate that out of five models, just in one (model A), the relationship is statically significant; thus, over multiple specifications, there is a positive effect on FDI for those countries that have improved their ease of Doing Business score above the average, but the effect is not statistically significant under multiple specifications. Hence, the results in table 12 suggests that Kapper and Love (2010) findings in the significant positive effect of large-scale reforms on increasing the number of project registration do not necessarily translate to an increase in FDI inwards.

The results in table 12 should be analyzed carefully because the analysis is based on data for just 12 countries (those countries which improved their score above the average). However, this result could be attributed to policy failure. In some cases, reforms that improve the business climate may not necessarily translate to the experience of foreign investors. A research shows a disconnection between policies and their

<sup>\*</sup> The variable coefficient is significant at 0, 01% level

<sup>\*\*</sup>The variable coefficient is significant at 0, 05% level

<sup>\*\*\*</sup>The variable coefficient is significant at 0,1% level

implementation; researchers note that reducing the number of days for compliance is likely accompanied by increases in actual days for compliance across a survey to firms. This discrepancy "could reflect greater enforcement or compliance" after implementing the policy (Hallward-Driemeier & Pritchett, 2011).

Table 12: Effect of Ease of Doing Business score on FDI into countries that have improved their score above the average

Dependent variable: Value of FDI inward (million USD)
GMM based on the Arellano-Bond Methodology

Variables	Label	Model A	Model B	Model C	Model D	Model E
Ease of Doing	DBS	316.1	280.9	489.6	191.5	267.8
Business score	DBS	0.0008*	0.2634	0.3636	0.5004	0.309
CDD	CDB	0.065	0.062	0.079	0.067	
GDP	GDP	<.0001*	<.0001*	<.0001*	<.0001*	
International		3431.8	18577.9	27508.1	5764.3	8744.9
Trade	Trade	0.0232*	0.0072*	0.1951	0.0301*	0.0024*
D-11411 -4-1-114	PS		362.3		508.5	530.9
Political stability			0.2144		<.0001*	<.0001*
	Inflation	77.8	-184.4	199.2		-349.2
Inflation		0.0202*	0.4787	0.7657		0.0272*
CDD amounth	CDD 1			10094.8	13615.5	
GDP growth	GDP growth			0.0008*	<.0001*	
CDD man agaits	CDPsomits					0.9
GDP per capita	GDPcapita					<.0001*
Sargan Test	Sargan Test		0.6067	0.5381	0.2404	0.4192
No. of observation	ıs	120	120	120	120	120
Model DF		91	90	90	90	90

Statistically significant estimates are in bold.

Table 13 presents the results when regressing the indicators of Doing Business. To be consistent with the results, the models use the same

<sup>\*</sup> The variable coefficient is significant at 0, 01% level

<sup>\*\*</sup>The variable coefficient is significant at 0, 05% level

<sup>\*\*\*</sup>The variable coefficient is significant at 0,1% level

combination of control variables used in Table 10. The indicator of starting a business is understood as the number of procedures, time, and cost and paid-in minimum capital requirement for starting a business. Based on the results, this indicator has a positive and significant impact on FDI over multiple specifications; it was significant in four of five models. The results in table 13 suggest that, on average, an increase in one score in starting a business indicator will lead to an increase of approximately USD 199 million in FDI. Consequently, the study presents empirical evidence to suggest that working toward the minimum number of procedures and the lower cost associated with all the requirements for opening a business will lead to a higher chance of attracting more FDI.

Based on the results in table 13, registering property was the only indicator that presents positive and statistical significance in the five models. This indicator is understood as the number of procedures and the cost of buying a property. Under multiple specifications, the performed regression suggests that, on average, an increase in one score on this indicator will lead to a rise in USD 320 million in FDI for countries in Latin America.

The result indicates that if a country can minimize the number of procedures and the cost of buying a property, the country will attract higher FDI. In other words, FDI is positively associated with a lower number of procedures for acquiring a property.

Based on the outcomes (table 13) of this study, the indicator of paying taxes is significant for FDI under multiple circumstances. This indicator is understood as the level of taxes and mandatory contributions that a company must pay within a year; a higher score means lower tax rates. Further, the result indicates that an increase in one score will increase by approximately USD 161 million in FDI for the Latin America region on average. The findings of Jayasuriya (2011) also suggest that paying taxes is a significant indicator of FDI in a sample of 50 countries around the world.

Analyzing the result of the indicator paying taxes, the empirical

evidence supports that those countries with the lower level of taxes and mandatory contributions to foreign investors will likely get a higher score; and, therefore, higher FDI. According to Garcia and Lopez (2020), having a lower level of taxes for Latin American countries is critical because most of the FDI inflows are invested in extractive and light manufacturing sectors with low levels of local linkage demand a low level of the qualified labor force.

For the current study, the indicator trading across borders was stated as the time and cost associated with the logistical process of exporting and importing goods. The findings (table 13) suggest that this independent variable is positively correlated with the dependent variable under different specifications. This indicator is significant in three of five models; consequently, an increase in one score of this indicator will lead, on average, an increase of USD 237 million in FDI for the Latin America region.

Further, the result indicates that countries with lower costs and the number of exporting and importing procedures will likely increase their FDI in Latin America.

The evidence provided by table 13 suggests that the indicators dealing with construction permits, getting credit, and enforcing contracts are not significant for FDI under multiple specifications. The indicator dealing with construction permits unexpectedly presents a negative relationship with FDI, but the results are significant in two of five models. In the case of getting credit, it was not significant in any model, and the indicator enforcing contracts presents being not significant in four of five models.

**Table 13: Influence of Doing Business Indicators on FDI**Dependent variable: Value of FDI inward (million USD)
GMM based on the Arellano-Bond Methodology

Variables	Labal	Model	Model	Model	Model	Model
	Label	A	В	C	D	E

Starting a	DDG	183.6	235.1	232.5	145.4	51.3
Business	DBS	<.0001*	<.0001*	<.0001*	<.0001*	0.6685
Dealing with		-180.7	-156.3	-179.7	-50.5	-72.6
Construction Permits	DCP	0.0076*	0.1717	0.1855	0.0954*	0.7788
Registering		248.0	308.3	370.3	344.3	332.6
Property	RP	<.0001*	<.0001*	0.0775*	0.0029*	0.0024*
Getting	GC	65.3	50.4	-8.0	59.3	102.3
Credit	GC	0.1259	0.6137	0.9647	0.4287	0.4478
		166.9	148.9	169.3	161.7	16.1
Paying Taxes	PT	0.0001*	0.0138*	0.0114*	0.0032*	0.8572
Trading		190.9	159.5	99.1	155.8	362.7
Across Borders	TAB	<.0001*	0.0679* **	0.4095	0.2005	0.0812*
Enforcing		-106.9	-128.7	46.5	-108.9	-57.9
Contracts	EC	0.0696*	0.1306	0.8346	0.1585	0.7739
		0.0143	0.0136	0.0142	0.0120	
GDP	GDP	<.0001*	0.002*	0.0509* **	<.0001*	
International	Trade	294.6	762.3	-87.5	540.6	-2819.5
Trade	Traue	0.8331	0.6862	0.9718	0.8315	0.6004
Political			-83.7		36.9	-117.3
stability	PS		0.3715		0.0554*	0.1746
Inflation	Inflation	226.4	245.2	223.0		252.6
Illiation	Illiation	<.0001*	0.0002*	<.0001*		0.0088*
	GDP			-1209.2	11748.3	
GDP growth	growth			0.9085	0.0824*	
GDP per	GDPcapita					1.1
capita	орт сарна					0.0088*
Sargan Test		0.5472	0.4179	0.5799	0.2395	0.3247
No. of observat	ions	294	294	294	294	294
Model DF		241	240	240	240	240

Statistically significant estimates are in bold.

\* The variable coefficient is significant at 0, 01% level

\*\*The variable coefficient is significant at 0, 05% level

\*\*\*The variable coefficient is significant at 0,1% level

# 4.2. Hypothesis testing

For the purpose of this section, this study takes a conservative approach and determines that an explanatory variable is statistically significant when presents being significant in at least three of five models; further, uses the highest P-value among those that are significant, and the lowest one for those that are not significant.

## 4.2.1. Hypothesis 1

Based on the regression results in table 10, the ease of Doing Business score is positively correlated with foreign direct investment. The explanatory variable ease of Doing Business score presents a P-value of <.0001, so it is statistically significant at a 99% confidence level. Based on the P-value, we can reject the null hypothesis in favor of the alternative hypothesis that the Doing Business index, as a whole, is a significant and positive stimulus to FDI for countries in Latin America.

# 4.2.2. Hypothesis 2

From the performed regressions in table 13, the explanatory variable starting a business presents a P-value of <.0001, so it is statistically significant at a 99% confidence level. Based on the P-value, we can reject the null hypothesis in favor of the alternative hypothesis that starting a business is a significant and important FDI indicator in Latin America.

# 4.2.3. Hypothesis 3

Dealing with construction permits presents a negative correlation but not statistically significant because of its P-value (0.1717) higher than the significance level (10%). In this case, there is not enough evidence to reject the null hypothesis.

## 4.2.4. Hypothesis 4

With a P-value of 0.0775, the explanatory variable registering property is statistically significant at a 90% confidence level. Based on its P-value, we can reject the null hypothesis in favor of the alternative hypothesis that registering property is a significant and important FDI indicator in Latin America.

## 4.2.5. Hypothesis 5

Getting credit has a positive correlation but not statistically significant because of its P-value (0.1259), higher than the significance level (10%). In this case, there is not enough evidence to reject the null hypothesis.

## 4.2.6. Hypothesis 6

The explanatory variable paying taxes presents a P-value of 0.0138, so it is statistically significant at a 95% confidence level. Based on the P-value, we can reject the null hypothesis in favor of the alternative hypothesis that paying taxes is a significant and important FDI indicator in Latin America.

# 4.2.7. Hypothesis 7

With a P-value of 0.0812, the explanatory variable trading across borders is statistically significant at a 90% confidence level. Based on its P-value, we can reject the null hypothesis in favor of the alternative hypothesis that trading across borders is a significant and important FDI indicator in Latin America.

# 4.2.8. Hypothesis 8

Enforcing contracts presents a negative correlation but not statistically significant because of its P-value (0.1306) higher than the significance level (10%). In this case, there is not enough evidence to reject

the null hypothesis.

**Table 14: Hypothesis testing** 

Hypothesis	Results
Doing business is a significant and positive stimulus to FDI	Confirmed
Starting a business is a significant and important indicator of FDI	Confirmed
Dealing with construction permits is a significant and important indicator of FDI	Not confirmed
Registering property is a significant and important indicator of FDI	Confirmed
Getting credit is a significant and important indicator of FDI	Not confirmed
Paying taxes is a significant and important indicator of FDI	Confirmed
Trade across border is a significant and important indicator of FDI	Confirmed
Enforcing contracts is a significant and important indicator of FDI	Not confirmed

Source: Author' analysis

# 4.3. Qualitative analysis

Out of ten in-deep interview invitations, nine were successfully conducted with the participation of both private sector practitioners and public officials. The next section presents the responses where common answers were grouped for each main analysis area based on the Thematic Content Analysis Method.

# Relationship between improving the business climate and FDI

Most of the respondents (8) identified the relationship as FDI dependent on improvements in the business climate. They agree that an efficient business climate will be instrumental in attracting larger FDI inflows, especially in the Nicaraguan case where economic growth and governance levels are unstable, public policies play a role in generating trust

and other investors' incentives. This result is in line with the quantitative analysis conducted in this paper, where improvements in the Doing Business Index explain FDI changes.

Moreover, two respondents emphasize that governments are those who know at first-hand the resources and capabilities of the nations they administer; therefore, they are the ones who can take the initiative to create policies that improve the business climate and favor the installation, development, and growth of investment projects and therefore lead to a more significant positive evolution of FDI.

Based on 11 years' experience as a public official, one of the respondents provides a clear example for Nicaragua, where the government passed several laws and reforms aiming to improve red tape affecting trade, create the legal framework to protect intellectual property rights, and improve labor conditions to be considered in the Free Trade Agreement between Central America, the United States, and the Dominican Republic (DR-CAFTA). The DR-CAFTA came into effect in Nicaragua in April 2006, years after the country laid the groundwork for such an important treaty. Alongside the passing of DR-CAFTA, Nicaragua also worked on modernizing its incentive packages to allow service providers (outsourcing activities) to also benefit from the Free Trade Zones Systems. Nicaragua also established a one-stop-shop for investments causally linked to the Free Trade Zones, which reduced the number of steps, bureaucracy, and time consumed to set up a company in Nicaragua.

Some respondents (4) argue that even when FDI is dependent on business regulations, once foreign firms are in the country, these companies pressure the government to consider reforms that will benefit them.

Lastly, contrasting with the majority's opinion, one respondent agrees that improvements in the business climate depend on FDI; the respondent argues that the companies bring the reforms proposals. The country that offers to implement the reforms is selected as the country's

destination.

### Government's efforts to improve the investment climate

When the respondents were asked if the government's effort to improve the business climate has had a positive impact on FDI, all the respondents (9) agree that the reforms aiming to improve the business climate have been a driving force for the higher attraction of FDI. Further, Nicaragua's government has been taking steps to create or reform different laws and regulations to grant tax incentives (Free Zones system). Also, non-fiscal incentives (security and better infrastructure) promote private investment growth, not only foreign.

Some respondents (3) emphasize that the incentives only benefit the agricultural and light manufacturing sectors. The Nicaraguan government lags to provide incentives or facilitate the investment climate on sectors with high value-added. This inhibits Nicaragua's ability to diversify more and attract high-tech manufacturing into the country. The high electricity cost and low levels of qualified human capital narrow down decision-makers' ability to choose Nicaragua as their economic solution.

Two respondents point to street-level bureaucrats' critical role; in their experience, even when the regulation has been simplified, there is a disconnection between the policy and its implementation. They argue that investors' experience is based on the implementation of policies, and in many cases, bureaucrats are not even aware of the new procedures. This aspect, disconnection between policy and policy implementation, was also mentioned in the quantitative analysis as a possible explanation for the results in table 13, where the outcomes suggest that even when there is a positive relationship between improvements in the ease of Doing Business score and FDI, for those countries that have improved their score above the average, it is insignificant.

Finally, there is a concern (three respondents) about the country's

situation since the social-political crisis started in 2018. The respondents consider that the government has to recover the private sector's trust and implement even broader reform packages to improve the business climate. In the past years, they have seen a setback in the government's efforts to attract more foreign investments, even making reforms that affect companies currently doing business in Nicaragua and potential future investments.

## Doing Business Index as a proxy of the business climate

All the respondents think the Doing Business Index is an accurate reference to the business climate. Respondents highlight the index's high value; it includes the government perspective and the private sector's opinion. Further, they emphasize that foreign investors rely on this instrument as a first attempt to get a sense of a country's business climate.

Some respondents (3) think that the index should be expanded and include important indicators such as corruption, innovation, technology, and labor force development. For these respondents, the index should provide a broader perspective, including emergent issues. Additionally, two respondents point to the importance of considering the Doing Business Index's methodological limitations, based on standardized case studies that might not apply to all companies in different sectors.

#### Doing Business Index and FDI

The majority of the respondents (6) think that there is a positive correlation between the ease of Doing Business score and the FDI inflows. Respondents argue that if the country obtains a better evaluation, it will become more attractive for FDI. They point to the positive effect of a better score on a country's image, showing crucial audiences the country's business climate's attractiveness. A respondent compares Nicaragua and Costa Rica, being the last one the leading FDI recipient country in the

region and has the best score among its neighbors. Another participant highlights that examining a country's effort to improve its standing on the index's various indicators over the years will also show investors that the country is serious about securing new investments and building a favorable environment for preciously established investors to grow and expand. In other words, this exercise is a relevant marketing tool in investment promotion best practices, and in the respondent experience, foreign investor representatives value benchmarks showing this gradual improvement in a country's ranking.

Further, a participant also argues that the correlation between the index and FDI will be more significant in some countries than in others and that the effect is long-term rather than short term. In other words, an improvement in the index could bring benefits in later years, mainly due to the time taken by investors' decision processes. Based on the quantitative analysis for 21 countries in the region, the index has a more significant effect on countries under the economic classification "upper-middle-income countries."

On the other hand, three respondents disagree with the majority and suggest no correlation between the index and FDI. For them, the Doing Business index only serves informational purposes, using the index as a metric that helps the country risk analysis processes.

## <u>Indicators of the Doing Business Index</u>

Out of nine respondents, most of the participants (8) coincide that the indicator starting a business is one of the most relevant, enforcing contracts was considered relevant for five respondents, trading across borders and registering property for four, dealing with constructions permits for three and getting credit and paying taxes just for one respondent. Based on the evidence provided in table 14, the indicators enforcing contracts, dealing with construction permits, and getting credit are not statistically significant, thus differing with the qualitative results mainly in the indicator enforcing contract where out of nine, five participants think it is highly relevant. It is important to consider that the qualitative analysis is based on a single case study, while the quantitative analysis considers data for 21 economies.

#### Benefits from FDI

All the respondents agree that one of the direct benefits of FDI in Nicaragua has been creating formal employments. This fact has had a positive effect, stimulating the economy of the areas where investment projects are established. Further, there is a consensus that FDI has boosted Nicaraguan exports and contribute to higher GDP growth rates year-on-year. Moreover, transfer of knowledge (technical and soft skills), more English-speaking individuals entering the workforce, improved port and highway infrastructure, improved country image (this can be seen through consistently higher tourist arrival statistics), a broader internet penetration, and more airline connectivity.

#### Current Challenges for the Business Climate

Some respondents (3) mention that one of Nicaragua's current challenges is highly centralized decision-making, which is centralized in the executive branch. All the reforms are taking in a top-down approach without consideration of other actors. Two respondents agree on the need to coordinate efforts in the e-government process implementation, such as online payment for taxes, digital signature, and digital compliances. These respondents argue that Nicaragua lags behind its neighboring countries, such as Costa Rica and Panama, in digital platforms for doing business. Lastly, a respondent emphasizes the need to respect and correctly enforce its legal framework; the private sector needs stability and predictability to thrive.

# **Chapter 5: Conclusion and Recommendations**

## 5.1. Conclusion

This study aimed to evaluate the impact of business regulations, measured by the Doing Business Index, on Foreign Direct Investment in a set of twenty-one economies in Latin America.

For the above purpose, this paper used the Doing Business Index as a proxy of the business climate. Following the literature, eight independent variables were used to test if they changed the dependent variable FDI. For independent variables, the ease of Doing Business score and the score of seven indicators that are part of the index were the maintained independent variables. To avoid a spurious variable and provide robust results, six control variables were included in the regression model under different combinations: GDP, GDP growth, GDP per capita, Inflation, International trade, and Political stability.

For testing our hypotheses, which stated that each independent variable positively influences the dependent variable, a panel data analysis based on GMM- Arellano and Bond Methodology was conducted for the ease of Doing Business score and the seven indicators. The model was also separately estimated with an additional economic classification dummy variable, testing if there is a difference in the effect respecting different economic levels. Further, a model was produced for those countries that have improved their ease of Doing Business scores above the average.

The performed regressions show that out of eight hypotheses, only five were confirmed. The Doing Business index, as a whole, is a significant and positive stimulus for FDI at a 99% confidence level. The following indicators have a significant effect on FDI: starting a business at a 99% confidence level, paying taxes at a 95% confidence level, registering property, and paying taxes at a 90% confidence level. There was not enough

evidence to reject the null hypothesis for hypothesis 3 (dealing with construction permits), 5 (getting credit), and 8 (enforcing contracts).

Further, the regression analysis showed that the Doing Business Index, as a whole, has a stronger effect on those countries under the economic classification "upper-middle-income countries" comparing with high-income countries; the results for the lower-middle-income countries were statistically insignificant. In those countries that have improved their score above the average, the performed regression presented evidence that the relationship with FDI is positively but not significant under multiple scenarios, attributed to policy failure.

Based on a single case study for Nicaragua using in-depth interviews, the qualitative analysis reinforces most of the quantitative analysis findings. The respondents identified the relationship as FDI dependent on improvements in the business climate, they pointed the government efforts to improve the regulatory framework for doing business, and there is a generalized consensus that the Doing Business Index is an accurate reference to the business climate but being aware of its limitations.

Thus, business regulations matter for Foreign Direct Investment. The Doing Business Index, as a whole, is a significant and positive stimulus for FDI in Latin America, and some indicators matter more than others as it is the case of starting a business, paying taxes, registering property, and trading across borders.

# **5.2. Policy implications**

Given that the statistical analysis results showed that the Doing Business score positively affects FDI, it is essential to continue efforts that improve Latin American countries' business climate. Further, the results suggested that out of seven, four indicators have a statistically significant incidence of FDI. Both results have policy implications that are important to understand for being able to draw policy recommendations.

Improving the business climate is among the priorities in Latin American countries' development process, and the Doing Business Index provides a starting point for reforms. This section discusses the three main policy implications of the results: establishing policy priorities, policy coordination, and policy implementation.

#### Priorities: Policy reforms

Governments are limited in time and resources; thus, it is essential to establish well-defined priorities regarding policy reforms. This section evaluates three criteria to prioritize reforms: feasibility, visibility, and impact.

Feasibility refers to the political acceptability of the reform, taking into consideration political will. In some cases, leaner regulations could translate into a smaller government size, so the reforms can be obstructed for the lack of political will even if the reform is necessary. Visibility refers to the impact that reform will have on the country's image; for example, those countries that carry out more reforms are always highlighted in the Doing Business Index and other World Bank publications. Finally, impact refers to the effect of business climate-related reforms on economic performance. Based on this paper's literature review, a better business climate is associated with higher FDI, and FDI positively impacts economic growth (Hanusch, 2012).

Further, the Doing Business Index improvements can be analyzed in three-time perspectives: short-time (less than a year), medium-time (more than a year and less than five years), and long-time (more than five years). In a short-time perspective, improvements that do not require a significant amount of budget, reforms, or a new Law, for example, the implementation of shorter forms or the consolidation of procedures. Second, in the medium term, improvements require a considerable amount of money

as a budget but do not require reforms or a new Law, for example, the digitalization of documents. Lastly, improvements that require reform or a new Law generally require a budget from a long-term perspective. It is a fact that for approving a new law, the process can take longer, and it will have a budgetary requirement for being able to carry out, for example, reforms to the tax code.

From the above, governments have to consider the indicators and the reform that will be implemented. The first category of improvements will be the easiest to implement since it does not require a large budget or a new Law; it can be carried out based on the administrative process. Moreover, it is necessary to analyze each indicator; some indicators generally do not have many windows of improvement under the first category, such as getting credit where reforms are a necessary condition.

Lastly, this research provides empirical evidence on the Doing Business Index indicators that have a significant and positive incidence on FDI. This evidence could support the government's priorities in terms of which indicators should be prioritized.

#### Policy coordination

The governments not only face the challenges of setting policy reforms' priorities but also ensuring positive coordination of policies among government institutions. Positive coordination refers that government agencies find ways to cooperate on practical solutions and avoid duplication of efforts, conflicts, delays, among others. Working toward positive policy coordination will generate benefits for the investment climate; for example, investors can repeatedly ask for the same information while doing procedures with different government agencies. This duplication can produce unnecessary costs for the government and lost time and cost for the investor. Further, positive coordination is necessary when the government

is designing new reforms; implementing a new reform could affect, without consideration, another government institution that may cause delays for investors.

#### Policy implementation

Governments face the challenge of ensuring the policies' proper implementations. The experience of foreign investors is mainly based on the policy implementation outcomes, thus ensuring an appropriate policy implementation will likely improve the business climate.

Often, the governments focus on business environment reforms based on policies, laws, and regulations but overlook the challenges associated with ensuring that reforms are enforced and implemented as it should be (Donor Committee for Enterprise Development, 2008).

The Doing Business Index encourages effective, understandable, and accessible reforms to carry out so that businesses can flourish and boost economic and social progress, but more efforts are required from the government to ensure a smooth implementation process. Indeed, the economies that have a higher score on the ease of Doing Business are not those where there is not regulation, but those where governments have succeeded to establish rules that simplify relations in the marketplace without unnecessarily hindering the development of the private sector with a transparent monitoring process for policy implementation (World Bank, 2019).

In fact, emphasizing the importance of implementation will require government efforts to address the often more complex issues associated with poor governance, organizational weaknesses, and corruption (Donor Committee for Enterprise Development, 2008).

# 5.3. Policy Recommendations

Building on the results and policy implications earlier described, five recommendations for improving Latin American countries' business climate are made. As the recommendations are drawn from the regional-level analysis, they are necessarily broad and will need to be nuanced with each country's considerations when applied to the individual countries. This study does not provide such specific country-level recommendations except for Nicaragua. Furthermore, the recommendations presented will need to be distilled into a series of specific time-bound actions and targets for implementation.

## Short term: General policy recommendations

The first recommendation is that governments analyze what they have done until now regarding business regulatory reforms aiming to ease foreign investors' establishment and establish it as a starting point for further discussion. Establishing a baseline of business regulatory reforms is a tactical starting point for planning a medium and long-term strategy for improving the business climate through regulatory reforms.

## Medium-term: General policy recommendations

The second recommendation is based on the ease of Doing Business score results, where a better score in the ease of Doing Business positively impacts FDI. Thus, governments should increase the dialogue and debate on the needs of reforms that include broader participation—for example, working on stronger cooperation with the private sector through chambers or associations and academia through think tanks. A broader perspective will allow the government to count on a variety of innovative solutions.

Third, the government should use the Doing Business Index as a

benchmarking tool to identify the best practices to improve on different Doing Business indicators. In fact, this study provides empirical evidence on the indicators that have a significant and positive impact on FDI; governments should analyze the best practices prioritizing the most critical indicators. This comparison can help some governments identify policies already implemented in neighboring countries that share similar economic, social, and political conditions. The Doing Business can be a source for policy transfer where the government can complement acceptable practices with their requirements or innovations.

The fourth recommendation addresses the policy failure problem detected in the quantitative analysis. Governments should establish a clear policy evaluation mechanism to ensure that policies are being implemented transparently and efficiently. The implementation process of a policy is a crucial factor in understanding its effectiveness. Working closely with the regulatory agencies and building the capacity and capability are conditions for a proper implementation that governments should consider.

## Long term: General policy recommendations

The last recommendation is based on this research results where political stability plays a crucial role in FDI attraction; being significant over multiple specifications, governments need to address the challenges and issues that create instability and internal and external perceptions. In Latin American countries, the perception of political instability often arises because of a lack of mechanisms for accountability, transparency, and public participation in policy development and implementation. Therefore, measures to enhance accountability and public administration transparency, such as integrity systems, internal control systems, and leadership practices, should be implemented.

Three policy recommendations are proposed for improving Nicaragua's business climate based on both the detailed information

provided in the qualitative analysis and the quantitative results.

## Medium-term: Policy recommendations for Nicaragua

First, the Nicaraguan government should work on a national strategy for e-government implementation instead of different ministries or agencies' efforts. Include in the strategy the current initiatives and accelerate their implementation. An e-government strategy would help modernize administration procedures, improve the investors' experience, and promote transparency in the process. Incorporating as legal procedures, for example, online payment, digital signature, and digital compliances will have a positive impact on business climate, reducing the days of key doing business indicators such as starting a business, registering property, and trading across borders, which have been proven they have a positive impact on FDI.

Second, the government should implement strategies to recover the private sector's trust, which has been affected since the socio-political crisis started in 2018. There is a call for the government to respect and correctly enforce the country's legal framework. The private sector needs to be sure that all the rules and regulations will be enforced as mandated by the law and not arbitrarily on a case by case.

#### Long term: Policy recommendations for Nicaragua

Finally, the government should address the high centralized decision-making system, considering both approaches top-down and bottom-up. A decentralized system helps with efficiency in doing business, reducing bureaucracy and delays, improving the quality of services, providing quick responses, and promoting innovative solutions by considering more perspectives.

# 5.4. Limitation of the Study

Regarding the final results provided by this study, it is necessary to consider the research's limitations. First, the quantitative analysis is based on the World Bank annual report Doing Business Index, which has some methodological limitations.

The Doing Business Index does not measure all aspects of the business environment that matter to firms or investors or all factors that affect competitiveness. For example, it does not measure corruption, macroeconomic environment, labor skills of the population, infrastructure, or the financial system's strength. Further, some indicators focus on laws and not on their implementation. The Doing Business report includes two kinds of indicators. The legal indicators are based on laws and not in their practices, such as those on investor protections and legal rights for borrowers and lenders. And the time and motion indicators that are based on the experience of foreign investors, these indicators measure the efficiency and complexity in achieving a regulatory goal by recording the procedures, time, and cost to complete a transaction following all relevant regulations (World Bank, 2020). For some indicators, such as dealing with construction permits, and enforcing contracts, part of the cost component (where fee schedules are lacking) and the time component are based on actual practice rather than the books' law. (World Bank, 2020).

Lastly, the qualitative analysis is based on a single case study, which failed to generalize the results. Further, just nine in-depth interviews were conducted.

## 5.5. Areas for Further Research

An analysis using an economic dummy classification was conducted to verify if the explanatory variable "ease of Doing Business

score" has a different impact on FDI under different economic classification. Further research might include a larger number of countries to enhance the results' validity and provide a more detailed analysis based on countries' comparison.

Furthermore, an analysis including just those countries that have improved their ease of Doing Business score above the average was conducted; however, the analysis results are based only on the data of twelve countries; further research might use a large sample of countries to produce more robust results.

Finally, including multiple case analysis will enhance the qualitative analysis and allow the generalization of its findings.

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# 국문초록

# 해외직접투자에 대한 기업 규제의 중요성 고찰 라틴 아메리카의 사례를 중심으로

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라틴 아메리카 국가들에서 기업 규제와 외국인 직접 투자 간의 관계에 대한 우려가 커지고 있다. 이 문제를 해결하기 위한 다양한 시도가 있었음에도 불구하고 이 분야의 실증적 증거는 충분하지 않다. 본 연구는 기업 규제 대리 변수로서 Doing Business Index를 사용하여 라틴 아메리카의 21개 국가를 대상으로 기업 규제가 외국인 직접 투자에 미치는 영향을 측정하였다. 결과의 견고성을 보장하기 위해 다수의 회귀 모델을 수행한 GMM Arellano and Bond 방법론에 근거하여 21개국의 14개년도 패널 데이터를 이용한 정량적 분석을 실시하였다. 또한 단일 연구 사례에서 9개의 심층 인터뷰를 통해 수집된 1차 데이터를 바탕으로 정성 분석을 실시하였다.

그 결과, 특정 조건 하에서는 the ease of Doing Business score이 외국인 직접 투자에 유의미한 양의 영향을 보이는 것으로 나타났다. 또한 창업, 세금 납부, 부동산 등록, 국제 교역의 사례가 Doing Business Index의 중요한 지표인

것으로 밝혀졌다. 이 네 가지 지표들은 특정 조건 하에서 유의미한 양의 영향을 보였다.

결론적으로 본 연구는 이 지역의 외국인 직접 투자를 활성화하는 더 나은 기업 풍토 조성을 목표로 정부에 일반적이고 구체적인 권고를 제시한다.

주제어: 외국인 직접 투자, 기업 규제, 라틴 아메리카, Doing Business

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