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An Examination of the Determinants of Ease of Doing Business: Perspectives from World Economies

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An Examination of the Determinants of Ease of Doing Business: Perspectives from World Economies

A Thesis Submitted by

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Abstract

This thesis' purpose is to explore the correlation between Ease of Doing Business sub-scores and the overall Ease of Doing Business score. The study includes a detailed quantitative study into the previously mentioned relationship. The Ease of Doing Business sub-scores comprise of scores representing 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. This is conducted via a series of diagnostic tests to identify an appropriate regression model. These tests include the Hausman Test, RESET Test, and Breusch-Pagan Test. Based on the tests, the method of regression selected used is the Generalized Linear Model (GLM). The results indicate that the following four of the ten sub-scores showed a positive, significant relationship with the overall Ease of Doing Business Score: Starting A Business, Getting Credit, Dealing With Construction Permits, and Resolving Insolvency. Starting A Business and Getting Credit obtained the strongest relationship with the overall score across quartiles. Additionally, this study provides insights into the modern venture capitalist and policymaker mindsets and approach to evaluation. This thesis aims to contribute to these approaches by adding depth to the existing literature and contributing to the ongoing, relevant dialogue.

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Introduction and Motivation of Study

Entrepreneurship and startup growth are increasingly important drivers of economic development globally. Fostering entrepreneurship and startup growth is a vital mechanism for corroborating economic growth, generating innovations, diversifying economies, decreasing unemployment. The success of entrepreneurial endeavors and startups are often dependent on a number of factors such as the ability to easily start and maintain a business in the respective region. The World Bank offers the Ease of Doing Business index as a global benchmark. The factors that comprise this index are the following:

- Starting a business
- Dealing with construction permits
- Getting electricity
- Registering property
- Getting credit
- Protecting minority investors
- Paying taxes
- Trading across borders
- Enforcing contracts
- Resolving insolvency

This research study aims to provide empirical evidence on the relationship between ease of doing business index score and its sub-scores. Hence, this research intends to break down the Ease of Doing Business index and highlight the sub-scores that most highly correlate with the overall score.

This would be useful for several key stakeholders. Primarily, venture capitalists must understand the macroeconomic factors that create the Ease of Doing Business index. This research study attempts to tackle the aforementioned gap by using quantitative analysis of data. The results of the preceding study will offer insights into how policymakers and stakeholders can leverage ease of doing business scores, as well as sub-scores, to create a supportive environment for business growth. Additionally, the study aims to provide practical recommendations, relating to the ease of conducting business indications, for venture capitalists considering investing.

This study aims to address said gap in literature, while considering the latest approaches and findings relevant, on a global scale. As mentioned, the findings of this study will be relevant to venture capitalists, policymakers, and other stakeholders looking to foster entrepreneurship and economic development in different economies.

This thesis contributes to the related studies in several ways. Initially, this thesis identifies and analyzes specific determinants influencing the Ease of Doing Business Index. This research adds depth to the existing literature and provides an additional perspective to Godwin Poi's study regarding the impact of entrepreneurial determinants on the Ease of Doing Business, with a focus on English-Speaking West African Countries (Poi, 2021). This thesis examines all nations listed by the World Bank, and takes a more global view on the topic.

Similarly, Kumar's study looks into the details of the Ease of Doing Business, as an index, and concludes that a strong correlation to FDI inflows (Kumar, 2020). This study adds depth to the preceding study by identifying exactly which sub-score within the Ease of Doing Business would indirectly have the largest impact on his conclusions.

Additionally, in the research "Ease of Doing Business and Its Impact on Inward FDI" by Mohamed Tareq Hossain, Zubair Hassan, Sumaiya Shafiq, and Abdul Basit, the conclusion that only specific criteria within the Ease of Doing Business score may have different impacts on metrics such as inward FDI (Hossain et al., 2018). As such, this thesis looks to identify which of the sub-scores most highly correlates with the Ease of Doing Business overall score. This would determine which of the sub-scores would most highly be well represented within the overall Ease of Doing Business score, providing further insight to decision-makers relying on said score.

Overall, this thesis means to add depth to existing research by examining the determinants of the Ease of Doing Business score, from the perspective of world economies. With additional insight, decision-makers and policymakers can make better-informed economic decisions using the Ease of Doing Business score, or even relying on a select amount of the index's sub-scores.

The research is conducted to fulfill the following objectives:

1. *To evaluate correlations between ease of doing business index scores and its sub-scores.*
2. *To examine the relative impact of each sub-score within the Ease of Doing Business Index to understand which components contribute more significantly to the overall index score*

3. *To validate the credibility of existing theories through regression analysis of the Ease of Doing Business determinants.*

4. *To provide a practical policy recommendation based on the research findings and assess how policymakers can leverage the study's information to enhance their decision-making*

5. *To clarify how pre-seed investors and venture capitalists can use this information to target a specific country or region*

As previously mentioned, the study aims to delve into the previous topics from a quantitative perspective.

Similarly, the research looks to answer the following questions:

- *Can the Ease of Doing Business sub-scores act as a leading indicator for the overall Ease of Doing Business score?*
- *How can investment strategies target a particular country or region?*
- *Can these explanations be generalized?*

This study holds imperative implications for venture capitalists and policy makers. The study investigates the meticulous connection between ease of doing business indicators and the rise of entrepreneurship & startup growth. The study empowers venture capitalists to make more informed investment decisions by highlighting and considering the ease of doing business background of a country's impact on the startup economy. Additionally, policymakers can gain insight into specific measures to be implemented to cultivate an entrepreneurial ecosystem. Finally, the study contributes to academic literature by widening our knowledge of the complex relationship between country policies and entrepreneurship.

The motivation for this thesis stems from the importance of understanding the determinants of the Ease of Doing Business across global economies. In a time marked by unprecedented economic interdependence and rapid technological advancements, nurturing a favorable business environment is vital for sustainable growth. The Ease of Doing Business Index serves as a benchmark for evaluating the regulatory frameworks and administrative processes for businesses. Recognizing the impact this index has on investment decisions, policy formulation, and overall economic health, there is a need to delve into the intricate factors influencing the index's scores. By unraveling the relationships between sub-scores and the overall Ease of Doing Business, this

thesis aspires to provide valuable insights for policymakers, businesses, investors, and researchers. The author is hopeful that the findings will contribute to academic discourse, as well as to the formulation of tailored strategies that may augment the ease of conducting business on a global scale.

Chapter One: Literature Review and Hypotheses Development

1.1. Introduction

The World Bank defines the Ease of Doing Business as a scoring mechanism for the facility of conducting business operations in a country. The ease of doing business in a country can be attributed to many sub-scores influencing the economic growth of said country affecting its entrepreneurial environment. However, not all sub-scores may correlate with the overall index score. Various key authors examine the Ease of Doing Business index and its sub-criteria. This chapter looks into the existing literature relating to the thesis topic. Afterwards, several hypotheses based on the literature are developed.

1.2. Literature Review

The study "The Impact of Entrepreneurial Determinants on Ease of Doing Business in English-Speaking West African Countries (ESWACS)" conducted by Godwin Poi in 2021, investigates the impact of entrepreneurial determinants on ease of doing business in Nigeria, Ghana, Sierra Leone, Liberia and Gambia. The selected countries were not among the top 50 countries when it comes to the ease of doing business ranking. The researcher utilized secondary data sourced from the OECD and the World Bank from 2010 to 2019. The author selected various independent variables as "their Entrepreneurial Determinants of regulatory framework peroxide by Small and Medium Enterprise Sale Tax (SSTR); access to finance proxied by both Interest Rate Spread (INTR) and Domestic Credit to Private Sector (DCPS). The dependent variable was the Ease of Doing Business Ranking (EDBR)" (Poi, 2021, p. 997). The study was conducted through an ex-post factor research design and descriptive statistical, correlation matrix, Panel-ARDL, Granger causality, and impulse response methods. The results indicated that the sale tax rate is positively, but weakly, correlated with the ease of doing business ranking. However, a negative and weak correlation between the ease of doing business ranking and interest rate spread, as well as domestic credit availed to the private sector. To validate, the author ran country specific analysis, which resulted in a positive correlations in Nigeria and Sierra Leone, but had a negative impacts in Ghana, Liberia and The Gambia. As such, it is imperative to consider country-specific data to reaffirm the general results. The author issued some recommendations where they recommended that the governments of ESWACs should ensure continuously using mixed

expansionary policies enhancing their entrepreneurial environments thus in turn positively affecting the ease of doing business in the area. To conclude, the ease of starting a business in a country depends on the entrepreneurial environment rooted in the macroeconomic environment.

Looking into the Ease of Doing Business (EDOB) as a ranking, the research scholar Pawan Kumar in his paper "Ease of Doing Business: A Critical Overview" describes the basis of the score. The research paper attempts to investigate the comparative weightage of the factors of the score and their applicability in different sets of a country's economic developments stage. Additionally, the author investigates other traits, which influence the investment flow. The paper gathers notable research on the topic looking at the different factors and their outcomes. Whereas, based on the literature survey, general improvements in the EDOB score usually entail more FDI inflows. Mentioning that prioritizing the EODB scores also diverts specially underdeveloped countries from reaching their full potential from their implemented reforms. " In general scale of Ease of Doing Business shows positive correlation with the investment environment as it includes various facets of administration, legal system, HRD policy etc" (Kumar, 2020, p. 596).

The change in Ease of Doing Business score for one country is highlighted in the research "Entrepreneurship Ecosystem: An Appraisal for Sultanate of Oman Using the Ease of Doing Business Index" conducted by co-authors Vibha Bhandari and Vikram Mohite (Bhandari and Mohite, 2022). Where the authors examined the movement of Oman from 2012 to 2019 using the Ease of Doing Business Index as published by the World Bank. The preceding study provides an example of the significance of the Ease of Doing Business Index and how it is reliably used to take positive actions for the economy. This exercise will help to know the effects of the change in ease of doing business in Oman as the country has undergone reforms to enhance the regulatory aspect of the entrepreneurship ecosystem for SMEs in the country. The authors define Ease of Doing Business as a measure of the regulatory framework existing for SMEs in a country. The authors further highlight Oman's efforts where in 2019, "[the government] made paying taxes more costly by increasing the corporate income tax rate and by eliminating the tax exemption on the first 30,000 Omani Rials ($78,000) of taxable profits" (Bhandari and Mohite, 2022). In 2018, to reduce the time required for documentary compliance in the trade business Oman enhanced its online single window system for exports and imports. In 2017, Oman removed the requirement to pay a minimum capital within 3 months of incorporation as well as streamlining the registration of

employees thus making starting a business easier. In 2016 "Oman improved the regulation of outages by beginning to record data for the annual system average interruption duration index (SAIDI) and system average interruption frequency index (SAIFI)" (Bhandari and Mohite, 2022, p. 10). Additionally, they applied a change in their border compliance shifting cargo operations from Sultan Qaboos Port to Sohar Port. In 2013, the government improved access to credit information by allowing borrowers to inspect their personal data, they also "reduced the maximum number of working days per week and increased the paid annual leave applicable for employees with one year of service" (Bhandari and Mohite, 2022, p. 10). In 2012, a major reform applied reducing the number of days required to register a business from seven to three days. Moreover, they by launched the Bank Credit and Statistical Bureau System, which collects historical information on performing and nonperforming loans for both firms and individuals.

With the initiatives applied by Oman, their overall ranking has improved. However, the authors mentioned a different weight of the index subcategories making Oman attain a relatively slow increase in its ranking. The country on the other hand witnessed a substantial increase in score of starting a business is reflected in an enhancement in rank from 73 in 2012 to 37 in 2019. To conclude, the author urges Oman to promote entrepreneurship "the government will have to initiate policy measures aimed at further strengthening and improving the legal framework. This initiative on part of the government coupled with similar initiatives from support institutions, private sector and other stakeholders will promote, nurture and foster entrepreneurship and thereby augment the entrepreneurship ecosystem in Oman" (Bhandari and Mohite, 2022, p. 22).

"The Regulation of Entry" by Djankov et al. is a study that provides insight into the practice and importance of the Ease of Doing Business score (Djankov et al., 2002). The paper explores the regulatory environment across countries and its repercussions for economic growth and entrepreneurship. The authors introduce the concept of the Ease of Doing Business index and evaluate the criteria and sub-criteria implemented to assess, specifically, the ease of starting a new business in economies. The sub-criteria includes procedures, time, cost, and minimum capital required to start a business. Additionally, the authors mention the importance of the ease of starting business criteria, as it is a vital factor in facilitating entrepreneurship and economic development. The study concludes that countries with more difficult and laborious entry regulations tend to show lower levels of entrepreneurship and economic growth. As such, reducing bureaucratic barriers

and streamlining relevant processes leads to employment opportunities and potential economic growth. Finally, the paper states the potential challenges and criticisms associated with the Ease of Doing Business index. This includes concerns about its scope and relevance in specific cultural and economic contexts. Therefore, despite reliably quantifying the ease of doing business of a nation, it is important to be cautious and consider wider economic, political, and social factors that may influence the entrepreneurial environment.

In the study "The Political and Legal Determinants of Venture Capital Investments around the World" conducted by Bonini and Alkan, the correlations between market variables, GDP and political stability with venture capital investments were examined (Bonini and Alkan, 2011). Using panel data from 16 countries from 1995 to 2002, the authors were able to confirm that active IPO markets, interest rates, corporate income tax rates and most importantly, R&D spending, "are meaningful factors in explaining the cross-country variation in levels of investment" (Bonini and Alkan, 2011, p. 12). Not only those factors were identified but also the health of the entrepreneurial ecosystem and level of inflation indicated a positive correlation with the level of investments as well as their timeliness.

Additional factors are also highlighted in "New-Firm Startups, Technology, and Macroeconomic Fluctuations" where new-firm startup activity is observed within a framework pooling a cross-section of 117 industries over six periods between 1976 and 1986 (Audretsch and Zoltan, 1994). A model is introduced relating the business cycle and startup activities. Where the author examines how the macroeconomic growth rate, the cost of capital, and the unemployment rate, industry-specific characteristics, and the technological conditions underlying the industry affect the establishment of startups. The authors, Audretsch and Zoltan conducted a pooled cross-section regression that confirmed the effects of each factor on startup activities. Where, a surprising aspect of their findings was how R&D expenditures play a major role in the establishment and continuity of the firm. Additionally, the research highlighted how "creative destruction" (Audretsch and Zoltan, 1994, p. 440) occurs when enterprises decrease employment by closing plants during an economic downturn, the resulting unemployment triggers an increase in the establishment of new firms.

Looking into venture capital, the authors Paik, Yongwook, and Heejin examine how and when venture capitalists choose to invest according to the economic conditions of the country. In

their research titled "Economic Downturn and Financing Innovative Startup Companies", the authors explore how changes in the amount of capital injected into venture funds affect the funding of innovative startups and how economic downturns affect their financing. The researchers hypothesized that "venture capital firms invest more (less) in early-stage companies than in later-stage companies when the amount of capital flowing into the market increases (decreases)" (Paik et al., 2013, p. 125). Their findings suggest that the investment patterns of venture capitals strongly influence market entrance of entrepreneurs.

In the research "Ease of Doing Business and Its Impact on Inward FDI" by Mohamed Tareq Hossain, Zubair Hassan, Sumaiya Shafiq, and Abdul Basit, the authors were looking at ease of doing business as an independent variable on Inward FDI in 177 countries from the World Bank Ease of Doing Business Index during the time span 2011- 2015 (Hossein, et al., 2018). Five independent variables were used, "Starting a business", "Getting Credit", "Registering Property", "Paying Taxes" and "Enforcing Contracts" were chosen while "Inward FDI" was the dependent variable. The authors conducted a least square regression model via EViews software to examine the relationship between the variables. Some of the highlighted results indicate that "Enforcing Contracts" has a positive impact on Inward FDI. However, "getting credit and "Registering Property were found to have a negative impact on Inward FDI. "Starting a Business" and "Paying Taxes" had no significant impact on FDI. Overall, the study confirmed that within the specified timeframe, ease of doing business enables FDI through better contract enforcements, getting credit and registering property, again, highlighting the significance of the Ease of Doing Business score.

Highlighting the effects of recession on the establishment of new businesses, a study conducted by Khader, Rajan and Sen derived a correlation between both (Khader et al., 2014). The research examines the effects of the independent variables on the ease of business as their independent variable. Firstly, the authors identified GDP per capita as their independent variable for the simple regression. Afterwards, the researchers decided to conduct a multiple regression model. Accordingly, several more variables were added along with the GDP per capita to see their effects on ease of business in a country. The added variables were new business density, unemployment, lending rates and internet users. The authors defined new business density as new registrations per 1000 people between ages 15-64. Unemployment is defined as the total percent of the labor force that is not employed and is currently seeking employment. High levels of

unemployment typically lead to a low level of job market entry. Thus, increasing the number of entrepreneurs wanting to create more job as they are willing to take more risks due to their lack of steady income. Interest rates are a key factor since they indicate what a bank would charge for loans in the private sector. Interest rates play a key role in the economy as it is notably used by the central banks to control monetary policy. When governments choose to increase interest rates, this could deter entrepreneurs from taking out a credit facility to start their businesses where they would choose to wait until the rates fall again. Internet users was a key chosen factor in the research where the increase of internet users would substantially increase business owners knowledge and effectively aid them in running their businesses as well as keep up with industry trends. The regressions resulted in positive correlations between factors the researchers tested for such as unemployment and ease of business formation. The other macroeconomic variables we observed also proved to be significant stimulants to the economy, justifying the authors' hypothesis.

Focusing on the startup ecosystem in the MENA region, the United Arab Emirates (UAE) has become a regional hub when it comes to the fintech ecosystem. The paper "Exploring Economic and Technological Determinants of FinTech Startups' Success and Growth in the United Arab Emirates" by Zarrouk, ElGhak and Bakhouche examines the factors influencing the success of fintechs in the UAE (Zarrouk et al., 2021). The business model, availability of and access to finance, and business ecosystem framework were examined in a semi-structured questionnaire with 32 fintech founders. Then, an ordered logistic regression model was performed. The researchers found that the available resources provided through venture capital, is essential to the success and survival of newly established FinTechs. However, the researchers identified some factors that negatively affect the growth and establishment of FinTech ventures. Those factors were financial barriers, the regulatory environment, and legal issues.

In summary, numerous pieces of literature recognize the importance of the Ease of Doing Business overall score and sub-scores. A number of authors note that policymakers and investors in different decision-making rationales utilize the overall Ease of Doing Business score. In addition, several authors recognize that the Ease of Doing Business sub-scores are observed and used for investment decisions. The impact of the aforesaid sub-scores on the overall scores may differ in terms of weight, dependent on country-specific factors. The correlation between the sub-scores and overall score was assessed, but a more recent study may provide further insights.

1.3. Hypotheses Development

Based on the above literature, the thesis examines the following testable hypotheses.

- **Hypothesis 1:** There is a significant, positive ratio between each of the 10 sub-scores for the Ease of Doing Business index and the overall Ease of Doing Business score. These sub-scores include:
    - o Starting a business
    - o Dealing with construction permits
    - o Getting electricity
    - o Registering property
    - o Getting credit
    - o Protecting minority investors
    - o Paying taxes
    - o Trading across borders
    - o Enforcing contracts
    - o Resolving insolvency
- **Hypothesis 2:** The significant sub-scores do not have equal correlations with the overall score. In other words, one sub-score may have a larger correlation with the Ease of Doing Business score than another sub-score.

Chapter Two: Research Methodology

2.1. Introduction

This chapter discusses the sample selection and research methodology used to achieve the research objectives of the thesis.

The research design for this study will look at the correlation between ease of doing business indicators sub-scores and the overall score. The quantitative review will include the analysis of ease of doing business, numerical data such as but not limited to starting a business, getting credit, registering property, paying taxes and enforcing contracts. The preceding data will be analyzed parallel to the country's ease of doing business score. This will comprise descriptive statistical analysis, time-series analysis, and regression analysis across different sets of data.

The analysis will identify trends and patterns in the data. The analysis and findings will provide a detailed understanding of the relationship between said ease of doing business indicators and entrepreneurship. Additionally, the analysis and findings will be related to practical applications especially venture capital-relevant conclusions. In culmination, the research study's limitations, such as but not limited to the availability & quality of data, will be discussed.

2.2. Data

The data used is from the World Bank archives (World Bank, 2020). Specifically, the data is from the World Bank macroeconomic data, coupled with FDI inflows data, provided publicly by the World Bank will be used. The periods included a total of 3600 observations over the time periods of 2012 – 2020. The cross-sections included is 213, corresponding to the number of unique economies included in the index and examined in the research. Note that World Bank classifications are used, which include several economies, which may not be a country, thus, leading to a larger number of economies than countries. A list of all economies is provided in the **Appendix**.

Moreover, one should note that each of the sub-scores reflect a score out of 100. The Ease of Doing Business overall score is calculated as a straight average of the ten sub-scores. Still, it is

important to understand the World Bank's definitions of each of the mentioned variables. This can be found in the below table.

Table 1: Definitions of Variables

Variable Name	Definition	Reference
Ease of Doing Business Score	Assesses the absolute level of regulatory performance over time. A high ease of doing business ranking means the regulatory environment is more conducive to the starting and operation of a local firm.	World Bank, 2020
Starting A Business Sub-Score	Procedures, time, cost, and minimum capital to open a new business	World Bank, 2020
Dealing with Construction Permits	Procedures, time, and cost to build a warehouse	World Bank, 2020
Getting Electricity Sub-Score	Procedures, time and cost for a business to obtain a permanent electricity connection for a newly constructed warehouse	World Bank, 2020
Registering Property Sub-Score	The steps, time, and cost involved in registering a property, assuming a standardized case.	World Bank, 2020
Getting Credit Sub-Score	Access to finance: the strength of credit reporting systems and the collateral and bankruptcy laws in facilitating lending.	World Bank, 2020
Protecting Minority Investors Sub-Score	Indices on the extent of disclosure, the extent of director liability, and ease of shareholder suits	World Bank, 2020
Paying Taxes Sub-Score	Number of taxes paid, hours per year spent preparing tax returns, and total tax payable as a share of gross profit	World Bank, 2020
Trading Across Borders Sub-Score	The time and cost associated with the logistical process of exporting and importing goods	World Bank, 2020
Enforcing Contract Sub-Score	Procedures, time, and cost to enforce a debt contract	World Bank, 2020
Resolving Insolvency Sub-Score	The time, cost and outcome of insolvency proceedings involving domestic legal entities.	World Bank, 2020

2.3. Dependent Variables

The author uses the aforementioned *Ease of Doing Business Score* variable as the dependent variable.

2.4. Independent Variables

The author uses the *Scores of the 10 factors of the Ease of Doing Business* as the independent variables. The 10 factors are listed below:

- Starting a business
- Dealing with construction permits

- Getting electricity

- Registering property

- Getting credit

- Protecting minority investors

- Paying taxes

- Trading across borders

- Enforcing contracts

- Resolving insolvency

2.5. Control Variables

As the thesis examines panel data for a multitude of countries, *Time* (by year) and which *Country* contribute to fixed effects that are considered in the data.

Table 2: List of Variables

Variable Name	Type of Variable	Reference
Ease of Doing Business Score	Dependent Variable	World Bank. (2020). *World Bank Archives.*
Starting A Business Sub-Score	Independent Variable	World Bank. (2020). *World Bank Archives.*
Dealing with Construction Permits	Independent Variable	World Bank. (2020). *World Bank Archives.*
Getting Electricity Sub-Score	Independent Variable	World Bank. (2020). *World Bank Archives.*
Registering Property Sub-Score	Independent Variable	World Bank. (2020). *World Bank Archives.*
Getting Credit Sub-Score	Independent Variable	World Bank. (2020). *World Bank Archives.*
Protecting Minority Investors Sub-Score	Independent Variable	World Bank. (2020). *World Bank Archives.*
Paying Taxes Sub-Score	Independent Variable	World Bank. (2020). *World Bank Archives.*
Trading Across Borders Sub-Score	Independent Variable	World Bank. (2020). *World Bank Archives.*
Enforcing Contract Sub-Score	Independent Variable	World Bank. (2020). *World Bank Archives.*
Resolving Insolvency Sub-Score	Independent Variable	World Bank. (2020). *World Bank Archives.*
Country-Effect	Control Variable	1 for respective country, 0 otherwise.
Time-Effect	Control Variable	1 for most recent year, 0 otherwise.

Note that descriptive statistics for the data received are provided in the **Appendix** of this thesis. This includes information such as but not limited to the mean, standard deviation, minimum, and maximum of the dependent and independent variables. Also, note that columns are added for the number of economies. For the corresponding economies' column, a 1 is inserted where the economies' data is relevant and a 0 is inserted otherwise to help measure country-relevant effects.

Additionally, note that throughout the analysis, quartiles are used to split the data based on their overall Ease of Doing Business scores. This allows the author to identify the consistency of the impact of the sub-scores on the overall scores. In other words, the correlation of the sub-scores on low Ease of Doing Business scores vs. high ones are evaluated. Quartiles 1,2,3,4 refer to the 1st, 2nd, 3rd and 4th quartiles of the scores of the Ease of Doing Business being arranged in an ascending order. Grouping the data into quartiles provides a clear, concise way to communicate findings including if effects differ from one quartile to another.

2.6. Panel Data Model Estimation

2.6.1. Testing for Random vs. Fixed Effects (Hausman Test)

Given that the data is panel data, a Hausman test is performed on all the models in order to determine whether fixed-effects or a random-effect regression model should be employed (Hausman, 1978; Hausman and Taylor, 1981).

$$H_0 : \text{cov}(x_{it}, \lambda_k) = 0$$

$$H_1 : \text{cov}(x_{it}, \lambda_k) \neq 0$$

Where x_{it} = regressors, and λ_k = error term.

Table 3: Hausman Test Results

Quartile 1	Quartile 2	Quartile 3	Quartile 4
$\chi^2(11) =$ 128.51	$\chi^2(11) =$ 136.77	$\chi^2(11) =$ 231.45	$\chi^2(11) =$ 341.44
$\text{Prob} > \chi^2 =$ 0.1358	$\text{Prob} > \chi^2 =$ 0.641	$\text{Prob} > \chi^2 =$ 0.972	$\text{Prob} > \chi^2 =$ 0.647

The Hausman test runs under the hypotheses that follow:

- **H0**: differences in coefficients are not systematic, meaning that the individual variable effects are uncorrelated with the independent variable (random-effects model is more suitable).
- **H1**: differences in coefficients are systematic, meaning that the individual variable effects are correlated with the independent variable (fixed-effects model is more suitable).

The above results show a large p-value, thus, indicating that a random-effect estimation fits the data. As such, we fail to reject the null hypothesis, and it is better to account for random-effects across the data.

2.6.2. Linearity vs. Non-linearity Test (RESET)

A linearity assumption indicates that the dependent variable is directly related to the independent variables and error term (Hilmer and Hilmer, 2014). Due to there being a set of independent variables, the relationship has to be linear in parameters. Nonetheless, variables may not be in a linear relationship with the dependent variables (Gujarati and Porter, 2009). The issue of linearity versus non-linearity is addressed and examined as well. In other words, it is necessary to decide whether a linear model will be sufficient, or if there is a non-linear relationship between the variables that needs to be taken into account. The Regression Equation Specification Error Test, or RESET, (Ramsey, 1969; Thursby and Schmidt, 1977; Thursby, 1979; Sapra, 2005; Wooldridge, 2006) is employed to test the two hypotheses that follow.

$$H_0: \hat{\gamma}^2, \hat{\gamma}^3 = 0$$

$$H_1: \hat{\gamma}^2, \hat{\gamma}^3 \neq 0$$

The null hypothesis, **H0**, refers to linearity and the alternative hypothesis, **H1**, refers to non-linearity.

Table 4: Ramsey RESET test using powers of the fitted values

Quartile 1	Quartile 2	Quartile 3	Quartile 4
F (900) = 8.04	F (900) = 9.31	F (901) = 6.21	F (899) = 9.18
Prob > F = 0.9001	Prob > F = 0.4147	Prob > F = 0.8022	Prob > F = 1.073

The results in *Table 3* show that the linearity assumption fits that data, due to a large p-value. In other words, we fail to reject the hypothesis. Based on the above tests, the Generalized Linear Model (GLM) estimator is utilized, since it conveys a valuable advantage in its adaptability. The GLM estimator accommodates a diverse array of probability distributions beyond the Gaussian distribution, encompassing Poisson, binomial, or gamma distributions, among others. This allows for a more precise alignment with the inherent characteristics of the data (Faraway, 2016). In addition to the preceding robust test, a homoscedasticity test may ensure that the appropriate regression model is specified.

2.6.3. Homoscedasticity Test (Breusch-Pagan Test)

Homoscedasticity pertains to the assumption that the relationship being studied remains uniform across the entire span of independent variables. Specifically, homoscedasticity denotes the constancy of variability in errors within a regression model across all levels of independent variables. When homoscedasticity is not satisfied, discrepancies in errors (residuals) may be more evident in certain segments of the variable range than in others. This discrepancy signifies the existence of heteroscedasticity in the data, wherein error terms lack constancy (Garson, 2012; Hilmer and Hilmer, 2014).

The Breusch–Pagan test, developed by Trevor Breusch and Adrian Pagan in 1979 (Breusch and Pagan, 1979), is a widely used method for detecting heteroscedasticity. Serving as a diagnostic tool, the Breusch–Pagan test evaluates the presence of heteroscedasticity in regression errors. Consequently, the hypotheses guiding the application of this test are detailed as follows.

H0: The variance of error terms is constant (Homoscedasticity)

H1: The variance of error terms is not constant (Heteroscedasticity)

If the test statistic yield a low p-value (i.e. $p < 0.05$), it implies rejecting the null hypothesis and asserting homoscedasticity. If the p-value is high (i.e. $p > 0.05$), then heteroscedasticity is inferred by testing the null hypothesis, H0, against the alternative hypothesis, H1. The summary of p-values resulting from the Breusch-Pagan Test is presented in *Table 4* below. These p-values play a crucial role in deciding whether to reject or retain H0.

Table 5: The Results for the Breusch-Pagan Test

Quartile 1	Quartile 2	Quartile 3	Quartile 4
$\chi^2(1) = 167.881$	$\chi^2(1) = 151.33$	$\chi^2(1) = 156.73$	$\chi^2(1) = 122.71$
Prob $> \chi^2 = 0.0000$	Prob $> \chi^2 = 0.0000$	Prob $> \chi^2 = 0.0000$	Prob $> \chi^2 = 0.0000$

The results in *Table 4* show that the null-hypothesis of the Breusch-Pagan Test for homoscedasticity is rejected at 1% significance level. Thus, there is heteroscedasticity and the variances of residuals are not constant, which requires the use of robust estimation to estimate the parameters of the models under consideration, reiterating the aforementioned model estimator required.

2.7. Summary

In the methodology chapter of the thesis, the author adopted a quantitative approach to examine the data and adjust the regression model accordingly. Initially, the panel data was retrieved and the variables were clearly identified, considering time-effects and country-effects. Subsequently, the Hausman Test was utilized to define whether a fixed-effect or random-effect model is required. The results of the test led to a random-effect estimation would be more suitable for the data. Afterwards, the RESET was conducted to test for linearity vs. non-linearity relationships within the data. The test yielded clear non-linearity within the data, thus, leading the author to utilize a Generalized Linear Model estimator to adapt. Finally, the Breusch-Pagan Test for

homoscedasticity conveyed that the variances of residuals are not constant. Alternatively, there is heteroscedasticity in the data, thus, reiterating the need for robust estimation to be used.

Chapter Three: Empirical Results and Analysis

3.1. Introduction

This chapter discusses the results of the data analysis to estimate the impact of the relevant independent variables on the dependent variable. The results of the GLM method of regression is shown and analyzed, in relation to the literature reviewed in this thesis.

3.2. Regression Results

The dependent variable is the overall Ease of Doing Business score. The Independent variables include the significant factors that affect the Ease of Doing Business score. As shown above, the estimation process primarily uses a GLM estimator. As previously mentioned, quartiles 1,2,3,4 refer to the 1st, 2nd, 3rd and 4th quartiles of the scores of the Ease of Doing Business being arranged in an ascending order.

Note that z-statistics, which measures the significance of coefficients, are reported between round brackets. The Variance Inflation Factor (VIF) scores, which assess multicollinearity, are reported in square brackets. Variables associated with a VIF score >= 10 are excluded to enhance the model's stability. Only the variables, which were significant in at least one quartile, are shown. Note that triple asterisks (***) indicate a high level of significance.

Table 6: Results of GLM Method of Regression

Variables	Quartile 1	Quartile 2	Quartile 3	Quartile 4
Constant	35.12	53.003	52.29	60.346
Starting A Business	0.0132 [VIF = 3.883] (8.69)***	0.0362 [3.883] (4.764)***	0.0513 [3.845] (4.803)***	0.1436 [3.223] (9.5002)***
Getting Credit	0.1779 [VIF = 7.13] (12.62)***	0.032 [6.488] (6.659)***	0.085 [6.775] (9.4748)***	
Dealing With Construction Permits			0.0529 [4.65] (9.414)***	
Resolving Insolvency				0.0989 [5.834] (13.443)***
Time	-0.264 [VIF = 2.069] (-5.479)***	-0.065 [2.013] (-3.126)***	-0.106 [2.47] (-4.327)***	-0.156 [2.098] (-6.478)***
Country-Effect (Binary; 1 for respective country, 0 otherwise)	Yes	Yes	Yes	Yes
N	900	900	900	900

Mean Dependent Var	42.75395	56.39163	66.08634	78.28114
Sum Squared Resid	33423.8	5931.514	8869.909	9481.347
Akaike Info Criterion	6.460284	4.731295	5.134784	5.201463
Hannan-Quinn Criterion	6.46843	4.739441	5.144957	5.209616
Deviance Statistic	37.26176	6.612613	9.888416	10.58186
LR Statistic	272.3865	52.94329	193.6634	310.6354
Pearson SSR	33423.8	5931.514	8869.909	9481.347
Dispersion	37.26176	6.612613	9.888416	10.58186
S.D. Dependent Var	6.958081	2.641886	3.459763	3.768679
Log Likelihood	-2906.358	-2127.45	-2310.79	-2336.66
Schwarz Criterion	6.481609	4.752621	5.161417	5.222807
Deviance	33423.8	5931.514	8869.909	9481.347
Restr. Deviance	43573.4	6281.607	10784.93	12768.45
Prob(LR Statistic)	0.0000	0.0000	0.0000	0.0000
Pearson Statistic	37.26176	6.612613	9.888416	10.58186

3.3.   Discussion of Results

Several information can be inferred from preceding table. This includes the coefficients of each variable, the significance of each variable in the corresponding quartile. This section will examine the effects of the relevant variables, which are included in the above table.

3.3.1. General Discussion of Results

It is imperative to observe the key elements and results from the GLM model, relating to how well the model fits the data. Several noteworthy points are listed below:

- Four Significant Variables: Only four of the ten Ease of Doing Business sub-scores confirmed to be significant. Starting A Business and Getting Credit are most consistently significant across the four quartiles. Dealing With Construction Permits and Resolving Insolvency are significant in one of the four quartiles. All other sub-scores are not significant.

- Sum Squared Resid: This is the sum of squared differences between the observed value and the predicted values, or the residuals. The variance in Sum Squared Resid, ranging from 5931.514 to 33423.8 indicates that there are varying levels of the model fit across quartiles. The model most accurately fits be Quartile 2, followed by Quartiles 3, 4, and 1.

- Akaike Info Criterion (AIC) and Hannan-Quinn Criterion (HQC): Similarly, there are small variances across quartiles with regards to their AIC and HQC values. A lower value suggests a better balance between fit and model complexity. Thus, it is inferred that different quartiles exhibit slightly different AIC and HQC values, and Quartile 2 obtains the best balance.

- Deviance Statistic and Likelihood Ratio (LR) Statistic: Lower deviance & higher LR statistics generally indicate better model fit, in comparison to a null or saturated model. Once again, the model shows Quartile 2 to obtain the best model fit, in comparison to the other quartiles. Additionally, Prob(LR Statistic) values suggest that the model is significantly better than a null model, since all quartiles exhibit a value of 0.

- Other metrics for model fit: The Pearson Sum of Squared Residuals (SSR), Log Likelihood, Schwarz Criterion, Deviance, Restricted Deviance, and Pearson Statistic all offer additional views for assessing the model fit, especially in comparison to other model types. Generally, the abovementioned results are replicated throughout.

- Dispersion: To assess the reliability of the results, a measure of the spread of residuals is made. This also follows the abovementioned quartile patterns with Quartile 2 showing the least spread of residuals, and Quartile 1 conveying the highest.

- Standard Deviation (SD) of the Dependent Variable: The preceding metric provides a measure for the variability in the dependent variable. The spread of the dependent variables is clear, with Quartile 1 obtaining the highest variability.

3.3.2. The Effect of *Starting A Business* on the *Ease of Doing Business*

There is a clear, **significant** effect of Starting A Business on the overall Ease of Doing Business, across all four quartiles. This is indicated by the z-statistics documented as (8.69)***, (4.764)***, (4.803)***, and (9.5002)*** for quartile 1, 2, 3, and 4 respectively. In addition, the correlation is evidently positive, shown by the positive coefficient of the variable in all quartiles, ranging from +0.0132 to +0.1436.

As previously noted, Bhandari and Mohite corroborate the implication that a streamlined registration process and reduced obstacles & hurdles to start a business positively influence the

overall business environment, with a focus Oman, in the research "Entrepreneurship Ecosystem: An Appraisal for Sultanate of Oman Using the Ease of Doing Business Index" (Bhandari and Mohite, 2022). Similarly, the notion that simplified procedures attract more entrepreneurs, leading to an increase in business activity, is one that Oman has directly witnessed in its 2012 major reform reducing the number of days required to register a business from seven to three days (Bhandari and Mohite, 2022). Taking a more global perspective, "The Regulation of Entry" recognizes the reduction of bureaucratic barriers for businesses as an imperative factor in increasing the overall Ease of Doing Business score, alongside economic growth. Facilitating entrepreneurship and economic development by reducing said barriers and streamlining relevant processes can lead to increased employment opportunities to fuel economic growth (Djankov et al., 2002). The significance of Starting A Business on the Ease of Doing Business is essential   and obtains a positive correlation as corroborated by the above GLM model, as well as previous research.

3.3.3. The Effect of *Getting Credit* on the *Ease of Doing Business*

Additionally, there is a **significant** effect of Getting Credit on the overall Ease of Doing Business, across three of the four quartiles. This is shown by the z-statistics written as (12.62)***, (6.659)***, and (9.4748)*** for quartile 1, 2, and 3 respectively. Despite quartile 4 not maintaining significance, one can suggest that this sub-score is vital to considering the overall Ease of Doing Business score, simply to its pattern in other quartiles. In addition, the correlation is clearly positive, indicated by the positive coefficient of the variable in the three quartiles, ranging from +0.032 to +0.1779.

This relates to the research conducted by Bonini and Alkan, as it observes interest rates' and getting credit's impacts on the overall business in a country. Bonini and Alkan suggest that the preceding factors are so meaningful that they lead to a direct impact on a country's level of venture capital investment and the level of health of a country's entrepreneurial ecosystem (Bonini and Alkan, 2011). The importance of this sub-score is once again corroborated by "Ease of Doing Business and Its Impact on Inward FDI" as getting credit, especially, is considered to be one of the main enablers of attracting FDI, depending on the country (Tareq et. Al, 2018). Quantitatively, this is observed by there being a significant, positive effect of Getting Credit on the Ease of Doing Business. Generally, one must understand that improved credit accessibility nurtures investment

and business expansion. Getting credit is an indicator of a robust financial system that encourages businesses to pursue growth opportunities with healthier access to funding.

3.3.4. The Effect of *Dealing With Construction Permits* on the *Ease of Doing Business*

Moreover, there is a **significant** effect of Dealing With Construction Permits on the overall Ease of Doing Business in quartile 3. This is indicated by the z-statistic documented as (4.65)*** for quartile 3. The correlation is positive, shown by the positive coefficient of the variable, +0.0529.

Poi's research looks into the effect of several entrepreneurial determinants on the ease of doing business. Poi argues that the specific environments of a country must be taken into account when prioritizing which factors will lead to the largest increase in the ease of doing business score. For example, in a country highly dependent on operational businesses, the effect of dealing with construction permits is inherently vital to the rise of entrepreneurship and the increase of ease of doing business (Poi, 2021). Taking a closer observation regarding the ease of a country's construction permit process, one can argue that an efficient, transparent construction permit process contributes to a very favorable business environment. Minimizing delays and obstacles in the permit issuance may attract ease of business, especially targeting infrastructure and development projects.

3.3.5. The Effect of *Resolving Insolvency* on the *Ease of Doing Business*

Moreover, there is a **significant** effect of Resolving Insolvency on the overall Ease of Doing Business in quartile 4. This is indicated by the z-statistic documented as (4.65)*** for quartile 4. The correlation is positive, shown by the positive coefficient of the variable, +0.0989.

Audretsch and Zoltan's research investigates the impact of industry-specific factors on the establishment of startups. They argue that "creative destruction" takes place as enterprises lessen employment by closing plants during an economic downturn. The resulting unemployment

eventually leads to an increase in economic growth via the establishment of new businesses (Audretsch and Zoltan, 1994). Thus, the author corroborates that a well-functioning insolvency framework encourages entrepreneurship by ensuring a fair, reliable exit strategy for businesses facing financial distresses and reducing the individual risk exposed to the business owner. Similarly, investors may find the business environment to be more attractive knowing that there is a sound process and mechanism in place for resolving insolvency.

3.3.6. Model Equation

Given *Table 5*, the GLM method of regression has identified four equations, dependent on the quartile. These equations are as follows, noting that Ease of Doing Business is abbreviated as EODB, and sub-scores are denoted by their corresponding variable name:

$$EODB\ Score_{Quartile\ 1} = 0.0132(Starting\ A\ Business\ ) + 0.1779(Getting\ Credit) - 0.264(Time) + 35.12$$

$$EODB\ Score_{Quartile\ 2} = 0.0362(Starting\ A\ Business\ ) + 0.032(Getting\ Credit) - 0.065(Time) + 53.003$$

$$EODB\ Score_{Quartile\ 3}$$
$$= 0.513(Starting\ A\ Business\ ) + 0.085(Getting\ Credit)$$
$$+ 0.0529(Dealing\ With\ Construction\ Permits) - 0.106(Time) + 52.29$$

$$EODB\ Score_{Quartile\ 4}$$
$$= 0.1436(Starting\ A\ Business\ ) + 0.0989(Resolving\ Insolvency) - 0.156(Time) + 60.346$$

The equations slightly differing from one another indicates that identifying which quartile to use for a model is also vital. Despite this, much of the same high-level correlations are illustrated across quartiles.

Conclusion, Limitations, and Recommendations

In culmination, the thesis has completed a comprehensive examination of the determinants of the Ease of Doing Business across world economies. By following a rigorous regression analysis using individual sub-scores and quartile-specific metrics, the research has provided valuable insights into the significance of the factors influencing the overall Ease of Doing Business score and business environment.

This is investigated through a series of data-relevant tests on fixed-effect vs. random-effect models, linearity, and homoscedasticity. Thus, the GLM method of regression is implemented and the results are analyzed. The findings reveal that specific components of the Ease of Doing Business significantly contribute to variations in its score. Notably, sub-scores for Starting A Business, Getting Credit, Dealing With Construction Permits, and Resolving Insolvency obtain a positive, significant relationship with the Ease of Doing Business. The quartile-specific results provide further insights on the dynamics within the score ranges, and have provided a granular comprehension of these sub-scores.

The implementation of numerous statistical analyses and metrics, such as but not limited to AIC, HQC, LR Ratio, and dispersion, provide evidence of the robustness of the data & model fit. As previously mentioned, this thesis updates and adds depth to the existing knowledge offered by previous literature. The research provides a unique perspective on the intricacies and the dynamics of the factors influencing the Ease of Doing Business. Based on the results obtained, **Hypothesis 1** mentioning that there is a significant, positive ratio between each of the 10 sub-scores is partially incorrect. A significant, positive ratio was observed especially for 4 of the 10 sub-scores: Starting A Business, Dealing With Construction Permits, Getting Credit, and Resolving Insolvency. Despite this, **Hypothesis 2** proved correct as the significant sub-scores do not have equal correlations with the overall score, as witnessed by their varying coefficients. This leads to several recommendations.

Consequently, policymakers, venture capitalists, and other investors can use this information to tailor strategies. For example, policymakers who recognize the link between FDI inflow and the Ease of Doing Business score may prioritize those sub-score that are significant in this study and obtain the highest coefficient. Implementing policies and streamlining existing policies to simplify and quicken the amount of resources required to start a business followed by getting credit may be essential to fueling entrepreneurial growth and attracting FDI. On the other

hand, venture capitalists and investors may recognize the impending business environment based on predictions affecting the aforesaid sub-scores. This would provide them more visibility and higher accuracy predictions with their investments and investment dynamics. For example, if a change in regulations to achieve credit, an investor can expect a significant change in the overall Ease of Doing Business score. Thus, an investor can also expect a change in inward FDI. On the contrary, if a change takes place regarding registering property, a weaker correlation can be expected based on the abovementioned results.

However, one can also note several limitations inherent to this thesis. First, this thesis is conducted by analyzing the impact of the relevant sub-scores on the overall scores for all world economies. Though, it may be imperative to reassess the scores in a silo from other economies, while hyper-focusing on the relevant economy to the stakeholder. Considering country-specific contexts is suggested by Poi, and may be useful to stakeholders assessing a specific economy or region (Poi, 2021). Unique political, cultural, and historical factors are not directly taken into account within the study. Therefore, one must grasp that a qualitative evaluation of the respective region can also bolster well-informed investment decision-making.

Furthermore, the quantity and quality of data points can significantly affect the strength and reliability of the analysis. As time moves on, data that is more recent is available and the author suggests continuously updating said models. In addition, the aggregation of the data into quartiles may oversimplify the analysis. Subtle variations within the quartiles may be overlooked to reach the previous conclusions. Finally, the Ease of Doing Business index itself may struggle to capture the full complexities of dynamic business environments across countries. This limitation, common across the use of indices, may require one to conduct a qualitative, context-specific analysis depending on the one's particular needs. Despite this, the reviewed literature validates several correlations between the Ease of Doing Business and other specific economic metrics. Addressing the abovementioned limitations potentially paves the way for future research to delve deeper into specific aspects of the study, or refining the methodology for a different understanding of the Ease of Doing Business determinants.

In essence, the thesis serves as a valuable resource for select stakeholders seeking to improve their comprehension of the multilayered nature of the Ease of Doing Business index. The thesis highlights the importance of tailoring policies and refining investment strategies for

improving business ecosystems across the globe. The insights from this study contribute to the ongoing dialogue regarding facilitating sustainable economic growth and entrepreneurship across world economies by highlighting the positive, significant variables correlating to the Ease of Doing Business. Also, this study achieves this contribution by reaffirming the sub-score for Starting A Business' and the sub-score for Getting Credit's consistency across the all quartiles of the Ease of Doing Business, keeping them relevant irrespective of a country's place in the index.

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Appendix

Table 7: Sample of Raw Data Format

Country code	Economy	DB year	Y Ease of doing business score (DB17-21 methodology)	X1 Score-Starting a business	X2 Score-Dealing with construction permits (DB16-21 methodology)	X3 Score-Getting electricity (DB16-21 methodology)
AFG	Afghanistan	2020	44.5	92.0	36.2	44.2
AFG	Afghanistan	2019	44.5	92.0	34.5	44.5

Table 8: Descriptive Statistics - Part 1

Variables	Mean	Standard Error	Median	Mode	Standard Deviation
Ease of doing business score	60.88	0.23	60.77		13.78
Starting a business	73.95	0.30	78.40	30.15	17.84
Dealing with construction permits	62.28	0.27	65.22	-	16.17
Getting electricity	65.33	0.34	69.38	-	20.67
Registering property	60.25	0.30	61.28	-	18.28
Getting credit	46.87	0.38	45.00	30.00	22.99
Protecting minority investors	50.60	0.32	56.00	62.00	19.02
Paying taxes	67.30	0.29	69.55	99.44	17.18
Trading across borders	69.12	0.38	69.90	100.00	22.72
Enforcing contracts	55.11	0.23	56.95	22.21	13.54
Resolving insolvency	42.38	0.39	39.85	-	23.63

Table 9: Descriptive Statistics - Part 2

Variables	Sample Variance	Kurtosis		Skewness	Range
Ease of doing business score	189.93	-	0.45	-0.27	66.89
Starting a business	318.38		1.33	-1.25	97.41
Dealing with construction permits	261.59		3.78	-1.54	93.47
Getting electricity	427.29		0.46	-0.81	100.00
Registering property	334.20		0.75	-0.62	95.41
Getting credit	528.35	-	0.62	0.01	100.00
Protecting minority investors	361.94	-	0.81	-0.30	92.00
Paying taxes	295.19		1.00	-0.84	100.00
Trading across borders	516.03		0.38	-0.79	100.00
Enforcing contracts	183.43		0.15	-0.47	78.02
Resolving insolvency	558.31	-	0.38	0.06	93.89

Table 10: Descriptive Statistics - Part 3

Variables	Minimum	Maximum	Sum	Count
Ease of doing business score	19.91	86.79	219,534	3,606
Starting a business	2.21	99.62	266,648	3,606
Dealing with construction permits	-	93.47	224,596	3,606
Getting electricity	-	100.00	235,580	3,606
Registering property	-	95.41	217,251	3,606
Getting credit	-	100.00	169,016	3,606
Protecting minority investors	-	92.00	182,448	3,606
Paying taxes	-	100.00	242,668	3,606
Trading across borders	-	100.00	249,262	3,606
Enforcing contracts	6.13	84.15	198,743	3,606
Resolving insolvency	-	93.89	152,822	3,606

Table 11: List of Economies

Afghanistan	Albania	Algeria	Angola	Antigua and Barbuda
Argentina	Armenia	Australia	Austria	Azerbaijan
Bahamas, The	Bahrain	Bangladesh	Bangladesh Chittagong	Bangladesh Dhaka
Barbados	Belarus	Belgium	Belize	Benin
Bhutan	Bolivia	Bosnia and Herzegovina	Botswana	Brazil
Brazil Rio de Janeiro	Brazil São Paulo	Brunei Darussalam	Bulgaria	Burkina Faso
Burundi	Cabo Verde	Cambodia	Cameroon	Canada
Central African Republic	Chad	Chile	China	China Beijing
China Shanghai	Colombia	Comoros	Congo, Dem. Rep.	Congo, Rep.
Costa Rica	Côte d'Ivoire	Croatia	Cyprus	Czech Republic
Denmark	Djibouti	Dominica	Dominican Republic	Ecuador
Egypt, Arab Rep.	El Salvador	Equatorial Guinea	Eritrea	Estonia

Eswatini	Ethiopia	Fiji	Finland	France
Gabon	Gambia, The	Georgia	Germany	Ghana
Greece	Grenada	Guatemala	Guinea	Guinea-Bissau
Guyana	Haiti	Honduras	Hong Kong SAR, China	Hungary
Iceland	India	India Delhi	India Mumbai	Indonesia
Indonesia Jakarta	Indonesia Surabaya	Iran, Islamic Rep.	Iraq	Ireland
Israel	Italy	Jamaica	Japan	Japan Osaka
Japan Tokyo	Jordan	Kazakhstan	Kenya	Kiribati
Korea, Rep.	Kosovo	Kuwait	Kyrgyz Republic	Lao PDR
Latvia	Lebanon	Lesotho	Liberia	Libya
Liechtenstein	Lithuania	Luxembourg	Madagascar	Malawi
Malaysia	Maldives	Mali	Malta	Marshall Islands
Mauritania	Mauritius	Mexico	Mexico Mexico City	Mexico Monterrey
Micronesia, Fed. Sts.	Moldova	Mongolia	Montenegro	Morocco
Mozambique	Myanmar	Namibia	Nepal	Netherlands
New Zealand	Nicaragua	Niger	Nigeria	Nigeria Kano
Nigeria Lagos	North Macedonia	Norway	Oman	Pakistan
Pakistan Karachi	Pakistan Lahore	Palau	Panama	Papua New Guinea
Paraguay	Peru	Philippines	Poland	Portugal
Puerto Rico	Qatar	Romania	Russian Federation	Russian Federation Moscow
Russian Federation Saint Petersburg	Rwanda	Samoa	San Marino	São Tomé and Príncipe
Saudi Arabia	Senegal	Serbia	Seychelles	Sierra Leone
Singapore	Slovak Republic	Slovenia	Solomon Islands	Somalia
South Africa	South Sudan	Spain	Sri Lanka	St. Kitts and Nevis
St. Lucia	St. Vincent and the Grenadines	Sudan	Suriname	Sweden
Switzerland	Syrian Arab Republic	Taiwan, China	Tajikistan	Tanzania
Thailand	Timor-Leste	Togo	Tonga	Trinidad and Tobago
Tunisia	Turkey	Uganda	Ukraine	United Arab Emirates
United Kingdom	United States	United States Los Angeles	United States New York City	Uruguay
Uzbekistan	Vanuatu	Venezuela, RB	Vietnam	West Bank and Gaza
Yemen, Rep.	Zambia	Zimbabwe		