ERASMUS UNIVERSITY ROTTERDAM

Erasmus School of Economics

Master Thesis International Economics

'The Effect of Human Rights on FDI: An Empirical Analysis'

Satinderjit Singh Toor (453264)

August 18, 2017

Supervisor: Dr. Laura Hering

Second assessor: Dr. Lorenzo Pozzi

Abstract

This thesis investigates the effect of human rights on inward foreign direct investment. A fixed effects model with strongly balanced panel data of 180 countries from 1981 to 2011 is employed. I discover that the impact of human rights on FDI is negative for low-income countries, and positive for high-income countries. The 'threshold' value of income (proxied by GDP per capita), where the effect of human rights on FDI transitions from negative to positive, depends on the sample of countries. In the benchmark model, the threshold is 1077 USD. In addition, the higher the income in a host country, the more positive (or less negative) impact do human rights have on FDI. Thus, improvements in human rights increase the inflow of foreign investment relatively more for wealthy countries. These findings emphasise the importance of the relationship between human rights and income, and their joint effect on FDI.

Contents

1. Introduction

The importance of Foreign Direct Investment (FDI) has certainly increased in the past decades, as evident by a rapid growth in the flows of foreign investment internationally since 1980 (Chakrabarti, 2001). FDI inflows increased from 735 billion USD in 2001 to 1746 billion USD in 2016 (UNCTAD, 2017). Both global corporations and host countries have an inherent interest in the interdependent relationship and financial gains that arise from foreign investment. FDI allows firms to secure raw materials, gain access to new markets, reduce production costs, and ultimately increase their return on investment (Spar, 1999). For the host countries, and especially developing states, FDI is a way to attract capital and increase its economic growth (Moosa and Cardak, 2006). In addition, heightened awareness of human rights conditions, along with major technological developments, has resulted in increased coverage and scrutiny of multinational corporations and their foreign investment decisions and of the host countries.

Earlier literature postulated a negative relationship between FDI and human rights. Such line of thought states that the financial interests of foreign investors are inherently in conflict with the enhancement of human rights. However, this negative relationship has been heavily debated and questioned. Instead, a new hypothesis has emerged, which theorises that there might be a positive relationship between human rights and FDI, as better human rights conditions in a host country can increase the probability of attracting foreign investment.

The goal of this thesis is to empirically analyse the effect of human rights conditions in a host country on foreign direct investment. Specifically, the research question is: 'How do human rights affect inward FDI?'. I use a fixed effects model with strongly balanced panel data for a sample of 180 countries from 1981 to 2011. The dependent variable is foreign direct investment, while the independent variables consist of the explanatory variable of interest, human rights, and control variables. Two different indicators of human rights are employed, CIRI and PTS, which measure physical integrity rights violations (political imprisonment, disappearance, torture, and extrajudicial killing).

There is a clear lack of extensive and explicit *empirical* research on the impact of human rights on FDI, especially for a comprehensive sample of countries and time period. Contrary to some previous research, I initially found that there was no significant effect of human rights on inward FDI. However, after I included an interaction term between human rights and income (proxied by GDP per capita), I observed that the impact of human rights on foreign investment is negative for low-income countries, and positive for high-income countries. Furthermore, the higher the

income in a host country, the more positive (or less negative) effect do human rights have on FDI. Hence, enhancement of human rights increases inward FDI relatively more for wealthy countries. As such, this thesis provides new information on the dynamic relationship between human rights and foreign investment.

The structure of the thesis is as following. The next section, which is the literature review, discusses previous literature and empirical findings on the relationship between human rights and foreign investment, and additionally examines important determinants of FDI. Thereafter is the methodology and data section, where I present the regression equation, and describe the dependent and independent variables. Chapter four is descriptive statistics, where I provide some preliminary evidence on human rights and FDI. Subsequently, the empirical results, where I first present the benchmark regression, which includes a subsection with the interaction term. Thereafter, the developed and developing countries models, whereas the developing countries sample is further divided into two additional subsamples of Asian and African countries. Chapter six is the robustness check, where I additionally control for the effect of political determinants (corruption, political stability, and rule of law). Finally, the conclusion, where I elaborate on the main findings in this thesis.

2. Literature review

Earlier literature has postulated a negative relationship between foreign direct investment and human rights. Such line of thought states that the financial interests of foreign investors are inherently in conflict with the enhancement of human rights. This assumes that repression of human rights can increase incentives for foreign investors by creating favorable conditions that aligns with the financial interests of international corporations, and thus encourages inflows of FDI for the host country (Blanton and Blanton, 2007).

The traditional literature on the adverse link between foreign capital and rights of humans can be explained by Lenin's theory of imperialism, which maintains that advanced capitalist countries and societies would eventually expand into foreign markets when profits in the domestic markets stagnated, thus resulting in the exploitation of the foreign countries' assets and resources, and further widening the gap between the holders of capital and the oppressed people. According to Lenin, the ruling elite (*bourgeoisie)* in the developed (*core*) and less developed (*periphery*) countries would conspire to increase their wealth on the expense of the working class, and thereby preserve a system of oppression (Hobden and Jones, 2011). Hymer,

following Lenin's theory, contended that in order to preserve the structures of their financial dominance, multinational corporations would collude with the governing elements of the repressive host country with the aim of exerting their authority and control over the poorest populations to refrain them from challenging the injustices in the status quo (in Spar, 1999). This exploitation of the working class by multinational companies and the host government would result in a "race to the bottom", where the workers receive a disproportionately low share of the value of production while working under unjust conditions (Collingsworth et al., 1994).

Foreign investors are dependent on the host country and its ruling elite to prevent the exploited masses from revolting, in order to retain their access to natural resources and to keep the labor force minimally monetary compensated and unable to protest (Blanton and Blanton, 2007). The host country seeks to create incentives and to appease the international corporations by repression of the working class to encourage inward capital, and thereby enjoy a disproportionate share of the economic benefits that ensue (Maxfield, 1998). The former president of Indonesia (Suharto), for example, allegedly aimed to entice FDI by restraining unions and minimising labor costs in the 1990s (Spar, 1996). As such, repression and human rights abuses can be used as means to maintain low wages and remove uncertainty of vicious clashes, and thus increase the probability of attracting FDI.

Thus, the negative relationship between human rights and FDI is based on the quest for international companies to attain and retain access to natural resources and low wages in the host country. However, the characteristics and importance of labor costs in regard to investment decisions have changed. First, inflow of FDI increases the demand for labor in a host country, which thus increases the price of labor (wages). Therefore, while some firms might invest in specific locations due to lower costs, their investments might increase demand for and productivity of labor, and thus increase local wage rates. However, this might be beneficial for foreign corporations. Multinational companies invest in developing countries not only because of lower labor costs, but also because they seek entry to new and emerging markets. If that is the case, then it is in the interest of foreign enterprises that the income in the host country increases, because rise in aggregate wealth will result in increased demand and consumption of goods and services. Thus, if corporations are investing in foreign markets to gain entry in new markets and increase revenue instead of lowering expenditures, it might be in their favour that real earnings rise, not because of any moral inclination, but because mass exploitation of the working class would result in less revenue. While increased wealth is not equivalent to

enhanced human rights, improvements in purchasing power is presumably indicative that fundamental and elementary conditions have at least not worsened (Spar, 1999).

Furthermore, the importance or share of labor costs of total production costs, and thus as a determinant for investment locations, has reduced significantly. One study found that in Organization for Economic Co-operation and Development (OECD) countries, labor costs as share of productions costs decreased from 25 % in the 1970s to approximately 5-10 % in the late 1990s (The Economist, 1997). Empirical findings show that multinational corporations have instead started to put relatively more emphasis on access to skilled labor or human capital. As Dasgupta et al. (1996: 16) state, "firms require high quality labor – not merely cheap labor" and "while low wages may be desirable, perceptions of labor quality are key to attracting foreign investment". This is also echoed by Schneider and Frey (1985: 165), who write that for "direct investment to be worthwhile, a skilled work force is needed". Asiedu (2006) observed that human capital has a significant positive impact on attracting foreign investment. Thus, if foreign corporations invest relatively more based on skilled labor, human rights violations, which intricately reduces the level of human capital in a country, can discourage rather than encourage FDI.

In addition, trends in foreign investment since the 1990s shows that relatively less investment is being made in the primary or natural resource industries. There has been a diversification of FDI, with foreign investment being directed towards secondary and tertiary sectors, such as manufacturing, services, and technology. FDI inflows to Africa by major investing countries[1] in the primary sector decreased from 3133 million (in USD) in 1996 to 2029 million in 2000, while foreign investment in secondary and tertiary sector increased from 1085 and 624 million to 1297 and 1931 million from 1996 to 2000, respectively (UNCTAD, 2002). These statistics are also consistent with developments and trends in the 21st century, where majority of foreign investment is made in the service industries. Out of the 26 trillion USD in foreign investment that was made globally in 2014, 64 % was made towards the service sector, followed by 27 % in the manufacturing industries, and 7 % in the primary sector. This sectoral distribution of inward FDI was almost similar for developed and developing countries (UNCTAD, 2016).

This has important implications for the relationship between FDI and human rights. Corporations investing in the primary sector would have to invest in countries endowed with such natural resources, which are often controlled by the ruling government or elite in

---

[1] France, Germany, Japan, Netherlands, Switzerland, the United Kingdom, and the United States.

developing countries, either directly through national monopolies or indirectly through significant influence. Thus, in order to gain access to these resources, foreign investing firms would have to create relations with such governments. This collaboration is beneficial for the multinational corporations and the ruling government, as the former profits of these extractive industries, while the latter gains capital and increased taxes that often ends up in the pockets of the elite, which creates a shared interest in protecting these assets. Firms might therefore be more inclined to invest in countries with an abundance of natural resources where the government prioritizes physically protecting these assets over the wellbeing of its population (Blanton and Blanton, 2007). However, as primary sector investment is decreasing in favor of secondary and tertiary FDI, firms will not necessarily have to invest in countries with human rights violations to gain access to natural resources, but can rather choose from multiple investment locations.

Yet, even though this shows an observed correlation between human rights and FDI, correlation does not equate to causation. The "resource curse" (Le Billion, 2005) or "natural resource trap" (Collier, 2007) states that countries with an abundance of natural resources are more at risk for the occurrence of civil war, which will result in reduced inflows of FDI (UNGA, 2009). Thus, the causation is not from human rights to foreign direct investment, but rather from natural resources abundance to internal conflict, then to human rights violations, and ultimately to FDI. However, empirical findings show the opposite. Host countries (especially developing) highly endowed with primary resources are more likely to attract FDI. Indeed, Lim (1983) found that natural resources had a positive and significant effect on FDI. Similarly, Asiedu (2006) observed that natural resource dependence encourages FDI in Sub-Saharan African countries.

However, as the primary sector and labor costs have become relatively less important for international companies and their investment decisions, and the need for and access to skilled labor and new markets have become more imperative, the conventional theory that theorises a negative relationship between FDI and human rights has been questioned. Instead, new literature hypothesizes that there might be a positive relationship between human rights and foreign direct investment, as better human rights conditions in a host country can increase the probability of attracting FDI (Richards et al., 2001). Human rights abuses are violations of rule of law. If that is the case, then foreign corporations might also be subjected to such infractions, which increases the risk on their investment. Adequate respect for property rights, for example, might be lacking in repressive regimes as such countries exhibit a relative absence of rule of law, which increases the uncertainty for firms seeking to invest abroad.

The new theory that better human rights conditions encourage inward FDI is also supported by the "spotlight" effect (Spar, 1999). Major technological developments in recent decades, with respect to the growth of the internet and the proliferation of mobile phones, has resulted in unprecedented flows of information being shared globally. There has also been increased awareness and emphasis on societal issues by civil society organisations. This has resulted in increased coverage and scrutiny of multinational corporations and their foreign investment decisions. As international firms have a financial interest in maintaining their brand, reputation, and ultimately their profits and stock value, they are forced to take human rights conditions in the host country into account in their investment decisions.

There is a clear lack of extensive *empirical* research on the impact of human rights on FDI. Instead, the focus has rather been on analysing the reverse effect of foreign investment on human rights (Kim and Trumbore, 2010; Richards et al., 2001; Sant'Ana, 2009). One exception is an empirical analysis by Blanton and Blanton (2007), who found a positive and significant effect of human rights on FDI. However, the authors only analyse developing (non-OECD) countries, and use random rather than fixed effects, which is highly questionable as it is imperative to control for time-invariant differences or characteristics. In addition, rather than analysing explicitly the link between human rights and foreign investment, several studies have instead investigated political determinants of FDI, where human rights are included implicitly in various political risk indexes.

Political Determinants of FDI

The impact of political factors on FDI has been highly contested in empirical findings. Schneider and Frey (1985) advocate for the inclusion of political, in addition to economic, determinants. According to the authors, political instability increases the risk for foreign actors to invest in a host country, and thus discourages inward FDI. Asiedu (2006) found that political risk and rule of law has a negative and positive effect, respectively, on foreign investment. Jensen (2008) observed that democracies reduce risk for international investors through relatively more constraints on the executive branch, and thereby increases the probability of attracting FDI. Busse and Hefeker (2007) found that political risk, in terms of government stability, interstate and intrastate conflicts, law and order, and to some extent corruption and democracy, are important factors for attracting FDI. Bussmann (2010) found that the occurrence of a militarized conflict reduces inward foreign investment. Additionally, the *anticipation* of

political violence might also discourage FDI. As Li (2008: 57) states, "foreign investors are forward-looking", and "a high risk of political violence will deter future investment flows and may lead to divestment from existing projects".

Corruption in the host country is also assumed to discourage FDI. Corruption can mainly be divided into four categories: bribery, fraud, embezzlement, and extortion (Andvig et al., 2000). Corruption reduces the efficiency of how investments are processed, increases regulations and the time required to get investments approved, raises the costs of foreign investors in terms of concession fees and briberies, and increases the risk and uncertainty of the return on investment (UNCTAD, 2002). Several surveys on determinants of FDI to Sub-Saharan Africa found that corruption was one of the main constraining factors (in Asiedu, 2006). The negative impact of corruption on FDI is supported by the empirical evidence (Al-Sadig, 2009; Habib and Zurawicki, 2002; Wei, 2000).

However, several other studies have shown that political determinants have little to no significant effect on FDI (Singh and Jun, 1995). Dunning (1981) and Wheeler and Mody (1992), for example, found no significant impact of political factors on foreign investment. An extensive empirical analysis on determinants of FDI by Root and Ahmed (1979) found that only 1 out of 7 political factors had a significant effect. Furthermore, political variables are very difficult to correctly define and measure (Tsai, 1994). Chakrabarti (2001: 102) stated that the "existing literature has so far used a variety of indices, none of which can be regarded as being meaningfully comprehensive". Sethi and Luther (1986: 58) wrote that "any measure of political risk based on some index of political instability would most likely lead to erroneous findings of dubious practical value".

Economic Determinants of FDI

A nice overview of some of the empirical findings on economic determinants of FDI can be found in Chakrabarti (2001) and Moosa and Cardak (2006). The United Nations Conference on Trade and Development (UNCTAD) (2016; 2017) also highlight some important determinants of foreign investment. I have already discussed the importance of skilled labor and natural resources in attracting FDI.

One determinant that has gained support as an important factor for positively affecting FDI is market size, often proxied by total GDP or GDP per capita. Market size indicates the demand

for goods and services, and allows firms to take advantage of economies of scale (UNCTAD, 2002; Schneider and Frey, 1985). Empirical results show that countries with relatively larger market size on average attract more foreign investment (Lunn, 1980; Tsai, 1994). Similarly, economic growth is also expected to increase inward FDI because "a more rapidly growing economy provides greater profit opportunities than an economy that is growing slowly or not at all" (Lim, 1983: 209). Economic growth indicates future market size and productivity in the host country (UNCTAD, 2002). The empirical evidence shows relatively strong support for the positive effect of economic growth on FDI (Billington, 1999; Culem, 1988).

Wages, in theory, are assumed to have a negative impact on foreign investment. However, the empirical evidence shows no definitive direction of effect. As Chakrabarti (2001: 99) states, wages "has been the most controversial of all the potential determinants of FDI". Culem (1988) and Schneider and Frey (1985) found that higher labor costs indeed reduce the probability of attracting FDI. Wheeler and Mody (1992), on the other hand, found that *higher* wages, especially in the electronics sector, encourage inward FDI. Another factor that is also estimated to negatively influence FDI is macroeconomic instability, often proxied by the inflation rate. Higher inflation indicates domestic monetary pressure and a reluctance of the government and the central economic institutions of the host country to restrict the supply of money, thereby discouraging foreign investment (Schneider and Frey, 1985). Asiedu (2006) found that the inflation rate had a significant negative effect on attracting FDI for a sample of 22 Sub-Saharan African countries.

Openness, which is measured as the ratio of trade (exports plus imports) to GDP, is expected to encourage FDI. Openness indicates the global exposure of the economy and the lack of trade restrictions. Since a majority of foreign investment is directed towards the sector of traded goods, openness is assumed to be an important determinant of FDI (Moosa and Cardak, 2006; Chakrabarti, 2001). The empirical evidence mostly shows a strong positive effect (Kravis and Lipsey, 1982; Culem, 1988; Sader, 1993). Trade balance is also estimated to influence FDI. There is no consensus in theory nor empirical evidence on the direction of effect, but Torrisi (1985) assumes that a positive trade balance (surplus) signals a productive economy with further potential for increased exports, and thus encourages FDI. Schneider and Frey (1985) and Torissi (1985) found a positive effect of trade balance on FDI, while Tsai (1994) and Culem (1988) found that a trade *deficit* makes it more likely to attract foreign investment.

There are two contrasting perspectives on the effect of (domestic) capital on foreign investment. One view holds that the higher the domestic investment is in a country, the lower the demand

for and profitability of FDI, which implies a negative relationship. The second perspective, which has been mostly supported by empirical findings, is that domestic investment acts as a complement rather than a substitution to foreign investment, indicating a positive relationship (Borensztein et al., 1998). Sader (1983) observed that domestic investment, proxied by gross fixed domestic capital formation, had a positive and significant impact on FDI (in the share regression), even though this appears to be the case relatively more in developing countries (see also de Mello, 1999). Closely related to domestic capital is (physical) infrastructure, which is highly important for foreign investment as multinational corporations aim to correspond their enterprises and business activities internationally (UNCTAD, 2002). However, infrastructure is very difficult to correctly measure or quantify, making it highly problematic for empirical analysis in terms of measurement errors (Moosa and Cardak, 2006). Yet, infrastructure does occur implicitly in some of the previously discussed variables, such as GDP per capita (Lim, 1983) and capital/domestic investment (Moosa and Cardak, 2006).

The issue, however, for both political and economic determinants, is that previous evidence show that there is no consensus on the main determinants of FDI (Blonigen, 2005; Schneider and Frey, 1985; Moosa and Cardak, 2006). Chakrabarti (2001: 90) attributes this to "wide differences in perspectives, methodologies, sample-selection and analytical tools". The author also discusses the problem of "measurement without theory", where certain variables are categorically combined and included, while others are excluded, to obtain the most 'favourable' or 'desirable' empirical outcome in terms of significance and 'correct' direction of effect (see also Busse and Hefeker, 2007). To avoid this issue, I have tried to include all the aforementioned determinants of FDI as control variables, given that the data is available.

3. Methodology and data

This thesis analyses the effect of human rights on inward FDI by using strongly balanced panel data for a sample of 180 countries[2] from 1981 to (and including) 2011. The countries and time period that is included in this empirical analysis is based on available data. The results from the Hausman (1978) test supports the use of fixed effects[3]. The empirical specification or regression equation of the fixed effects model is given below.

$$FDI/GDP_{i,t} = \alpha + \beta_1 Human\ Rights_{i,t-1} + \beta_2 ln\ GDP_{i,t-1} + \beta_3 ln\ GDP/Capita_{i,t-1}$$
$$+ \beta_4 Growth_{i,t-1} + \beta_5 Openness_{i,t-1} + \beta_6 Balance/GDP_{i,t-1}$$
$$+ \beta_7 Inflation_{i,t-1} + \beta_8 Rents/GDP_{i,t-1} + \beta_9 Capital/GDP_{i,t-1}$$
$$+ \gamma_i + \gamma_t + \varepsilon_{it}$$

The subscripts i and t denote the country and year, respectively. The dependent variable is foreign direct investment, while the independent variables consist of the explanatory variable of interest, human rights, and control variables. The independent variables are lagged for one time period due to potential reverse causality or simultaneity concerns. Previous theory and empirical findings show that FDI also affects several of the independent variables (Kim and Trumbore, 2010; Richards et al., 2001; Bengoa and Sanchez-Robles, 2003; Borensztein et al., 1998; de Mello, 1999). The fixed effects estimators, γ_i and γ_t, denote country and year fixed effects, respectively. The stochastic error term is ε_{it}.

Foreign Direct Investment

The dependent variable is inward FDI, measured as net inflows (new investment minus disinvestment) of foreign direct investment, as % of GDP, in the host country. FDI is defined as an investment to acquire a continuing stock or interest in a foreign enterprise. The aim of the investor is to obtain an effective position in the management activities of the foreign affiliate, which normally requires owning at least 10 % of the shares (IMF, 1993; OECD, 2008). Data on FDI is collected from World Development Indicators of the World Bank. Similar to Edwards (1990), Bengoa and Sanchez-Robles (2003), and Asiedu (2006), FDI is divided by GDP to control for and reduce potential biases due to large country effects (Singh and Jun, 1995; Root and Ahmed, 1979).

---

[2] List of countries can be found in Appendix A.
[3] The Hausman test results for the benchmark models are chi2=69.53 (p=0.00) with the CIRI measure of human rights, and chi2=46.79 (p=0.00) with the PTS variable. The use of random effects is rejected.

Human Rights

The United Nations (UN) (1948) "Universal Declaration of Human Rights" established a set of fundamental human rights that in principle should be universally respected and promoted by its member states. The Declaration consists of 30 articles that emphasises physical integrity, religious, social, economic and political rights and freedoms of all humans without discrimination. As evident, human rights encompass an enormous set of fundamental rights and freedoms in theory, but in practice we usually refer to a specific subset of human rights, such as physical integrity rights.

I use two different measures for human rights conditions in a host country. The first measure is the *Physical Integrity Rights Index* from the "CIRI Human Rights Dataset" by Cingranelli et al. (2014). Physical integrity rights violations include political imprisonment, disappearances, torture, and extrajudicial killings (Wood and Gibney, 2010; Cingranelli and Richards, 1999). The CIRI index is measured from 0 to 8, where a higher score indicates more government respect for human rights. The second measure is from Political Terror Scale (PTS)[4], which also measures physical integrity rights. For the PTS measure, which ranges from 1 to 5, a higher score indicates *less* respect for human rights. However, I recoded the PTS variable, so a higher score now indicates *more* government respect for physical integrity rights.

Both measures are coded from the same two data sources, which are annual human rights reports from Amnesty International and the US Department of State. While the CIRI measure combines data from both sources to create one physical integrity rights index, PTS uses the data sources separately to create two indexes (Cingranelli and Richards, 1999; Wood and Gibney, 2010)[5]. However, the two PTS indicators (based on Amnesty and the State Department reports) are highly correlated (0.8). Hence, I will only include the US State Department based PTS index in my empirical analysis as it has relatively more observations for my sample.

There is an inherent difference between the CIRI and PTS measure in their coding system of physical integrity rights violations in a country (Wood and Gibney, 2010). The CIRI indicator measures the four human rights violations (political imprisonment, disappearance, torture and extrajudicial killing) separately from 0 (frequent violations) to 2 (no violations), and then sums these scores to compose the physical integrity rights index that ranges from 0 to 8. PTS, on the

---

[4] http://www.politicalterrorscale.org/Data/
[5] See Poe et al. (2001) for a detailed description of the differences between the human rights reports by Amnesty International and the US Department of State.

other hand, does not measure disaggregate scores for the four human rights abuses, but rather has just one aggregate physical integrity rights measure.

This results in some benefits and disadvantages. First, the CIRI disaggregate measure of the four human rights abuses employs an artificial threshold of 50 confirmed violations annually in a country to receive a score of 0 (frequent violations), while 1 to 49 violations results in a score of 1 (some violations), and a score of 2 is no violations (Cingranelli and Richards, 1999). This means that 1 confirmed violation results in the same score (1) as 49 violations, and 50 confirmed violations results in the same score (2) as 500 or 1000 abuses. On one hand, this creates a consistent (but artificial) threshold that allows the CIRI coders to objectively (based on the annual country reports) score the four different human rights factors in a country. On the other hand, the broad categories or classifications of human rights violations results in disproportionate weights given to a certain number of abuses in a category. While it is a continuous measure, as it ranges from frequent to no violations, it could have been improved by including additional scores or categories.

Second, as the CIRI index is an additive measure of the four human rights abuses, its scores can differ greatly relative to the PTS measure. A (slightly modified) example of this difference is provided by Wood and Gibney (2010). Imagine that in one country, government forces kill 100 protestors. In a second country, the government first politically imprisons 100 protestors, then tortures, and ultimately kills these prisoners. According to the PTS measure, the human rights score would be relatively similar in both countries. For the CIRI indicator, however, the scores for the two countries would be very different, with 100 human rights abuses in the first country (100 extrajudicial killings), and 300 violations in the second country (100 imprisoned + 100 tortured + 100 killed). Ultimately, 100 protestors were killed in both countries, so one could argue that the human rights scores for both countries should be relatively similar, supporting the use of the PTS indicator. On the other hand, one could also argue that a difference should be made between instant death, and being imprisoned, tortured, and then killed, thus supporting the CIRI index.

In addition, for the CIRI measure, the different human rights violations are given the same weight in the scoring system. Extrajudicial killing, for example, is weighted the same as political imprisonment. Countries with similar scores can have very different combinations of human rights violations (Wood and Gibney, 2010). Thus, due to the different coding systems of the two measures, and subsequent benefits and disadvantages, I will employ both measures, *CIRI* and the US State Department based *PTS* (hereby only PTS).

Control Variables

The literature review provides a detailed discussion of the theory and empirical findings on the determinants of FDI. As previously stated, there is no consensus on which factors that are the main variables to influence FDI. The choice of control variables, as was explained by Chakrabarti (2001), has a profound effect on the empirical results. To avoid the aforementioned issue of "measurement without theory", I intended to include all the determinants of FDI from the literature review as control variables. However, lack of available data for my sample of 180 countries between 1981 and 2011 resulted in the exclusion of political stability/risk, corruption, rule of law, and skilled labor as control variables in my empirical analysis. Regarding corruption, for example, the two most widely used measures are the 'Corruption Perceptions Index (CPI)' from Transparency International and 'Control of Corruption' from the World Governance Indicators of the World Bank. For the former measure of corruption, data is only available from 2007 for 180 countries, while for the latter measure, consistent data is only available from 2000 for 196 countries (in Rohwer, 2009). For skilled labor or human capital, which is proxied by secondary education, the observations dropped relatively low (2,757 with the CIRI index and 2,791 with PTS) in the benchmark regression[6]. Without the skilled labor variable, the observations increased to 3,573 and 3,657 with the CIRI and PTS human rights measures, respectively[7].

The aim of this thesis is not to construct an overall theory of foreign investment, but to specifically analyse the impact of human rights on inward FDI. Yet, to control for the effect of political determinants (corruption, political stability, and rule of law), I do a robustness check that includes these three political factors for the years 1996, 1998, 2000, and from 2002 to 2011. List of the control variables can be seen in table 1. Detailed descriptions can be found in the literature review. Data for the control variables is collected from World Development Indicators of the World Bank.

---

[6] I also tried with tertiary education (as a proxy to skilled labor), but the observations dropped even lower.
[7] The skilled labor variable was not significant. In addition, as I was controlling for multicollinearity, secondary education was extremely correlated (0.8) with (the log of) GDP per capita.

Table 1

Control Variables

Variable	Measures	World Development Indicator Name
ln GDP	Market size Demand for goods and services	GDP (current US$)
ln GDP/Capita	Wealth Wages/Income	GDP per capita (current US$)
Growth	Future market size and development potential Productivity	GDP growth (annual %)
Openness	Global exposure of the host economy	Trade (% of GDP)
Balance/GDP	Trade balance	External balance on goods and services (% of GDP)
Inflation	Macroeconomic instability	Inflation, consumer prices (annual %)
Rents/GDP	Natural resources abundance or dependence	Total natural resources rents (% of GDP)
Capital/GDP	Capital stock in the host country Domestic Investment Infrastructure	Gross fixed capital formation (% of GDP)

I have included (the log of) both (absolute) GDP and GDP per capita as control variables. There has been a debate in the literature on whether market size should be proxied by total GDP or GDP per capita. Root and Ahmed (1979) notes that GDP per capita is a relatively better measure of market size than total GDP, especially in many less developed countries, as absolute GDP indicates population, rather than market, size. The use of GDP scaled for population is also supported by Tsai (1994), who explains that absolute GDP might result in biased estimates in cross-country analyses. Additionally, as Chakrabarti (2001: 98) states, GDP per capita "has served as a proxy for market size in most empirical works on the determinants of FDI and has, by far, been the most widely accepted as having a significantly positive impact on FDI". However, this is disputed by Moosa and Cardak (2006: 207, emphasis added), who state that GDP "is typically used as a proxy for market size", and that a "*minority* of economists seem to disagree with this choice". No one would credibly argue that Luxembourg, who had almost

100,000 USD in GDP per capita in 2015, has a larger market size than China (8,069 USD), India (1,593 USD) or the United States (56,115 USD). Thus, it is more appropriate to classify (absolute) GDP as (total) market size, and GDP per capita as a proxy for wealth and wages.

Extreme outliers for the inflation variable were excluded from the regressions (and descriptive statistics) to avoid biased estimates. Upper limit was set at 10,000 (annual % change in consumer prices). This resulted in the removal of 3 observations with the CIRI human rights measure: Zimbabwe in 2007 (24,411%), Bolivia in 1985 (11,749%), and Nicaragua in 1988 (10,205%). In regressions with the PTS variable, one additional outlier for inflation was excluded, Congo in 1994 (23,773%), along with one extreme outlier for the growth variable, Equatorial Guinea in 1997 (149%). Significance (of the independent variables) did not change (with either the CIRI or PTS measure) before and after excluding the outliers.

4. Descriptive statistics

Table 2

Summary statistics, benchmark sample, CIRI human rights measure

Variable	Observations	Mean	Std. Dev.	Min	Max
FDI/GDP	3,570	3.13	5.72	-58.97	89.47
Human Rights (CIRI)	3,570	4.94	2.25	0	8
(ln) GDP	3,570	23.84	2.19	18.91	30.33
(ln) GDP/Capita	3,570	7.79	1.58	4.66	11.63
Growth	3,570	3.6	4.68	-30.14	34.5
Openness	3,570	76.05	46.27	6.32	439.65
Balance/GDP	3,570	-3.85	13.56	-161.42	50.68
Inflation	3,570	34.64	274.98	-35.83	7485.49
Rents/GDP	3,570	6.81	10.2	0	66.47
Capital/GDP	3,570	21.62	7	2	63.04

Summary statistics of the benchmark sample with the CIRI measure of human rights are presented in table 2. The CIRI human rights variable, which is measured from 0 to 8, has a mean of 4.94, which implies that on average the countries in the benchmark sample are above the median value (4). This is also the case for the PTS index with a mean of 3.59, which is above the median value (3). Descriptive statistics with the PTS measure of human rights can be found in Appendix B. Additionally, it is interesting to look at the regional differences (on average) of human rights conditions.

Figure 1: Distribution of human rights conditions in different regions, 1981-2011 (180 countries), CIRI measure.

Graphs by Region
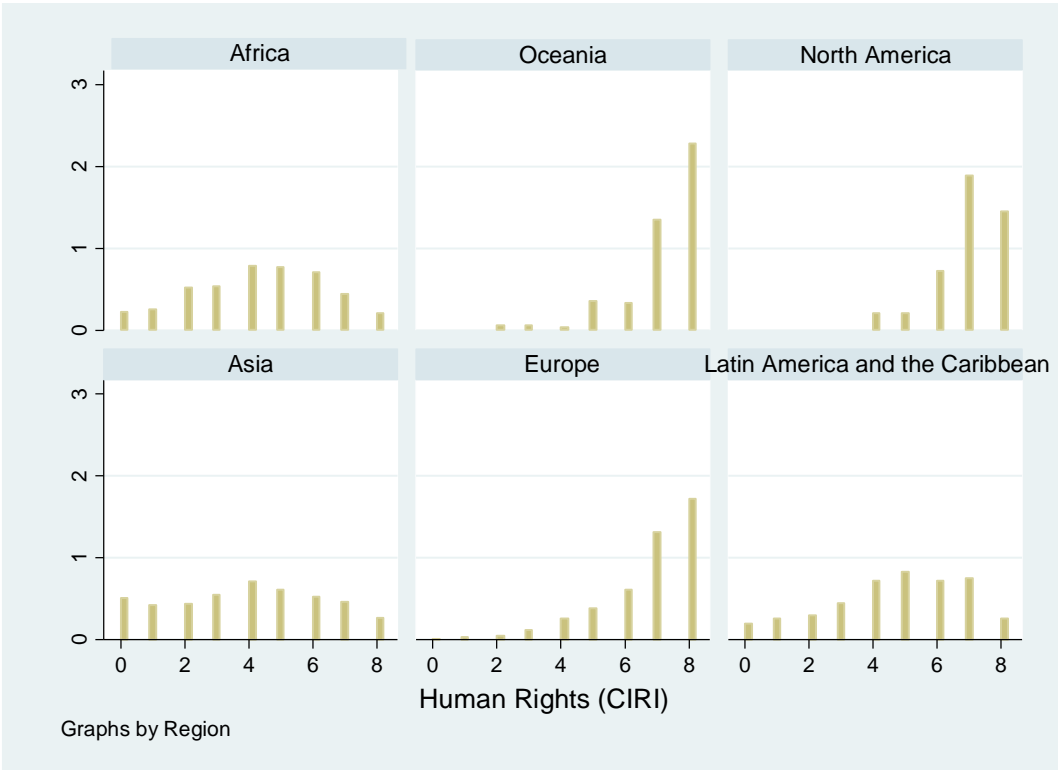
In Africa and Asia, it appears to resemble a normal distribution, where the mean is approximately the same as the median value (4). However, human rights conditions in Africa are (on average) slightly better than in Asia. For Latin America and the Caribbean, the tail of the human rights distribution is leaning to the right or towards the upper values of the human rights measure, which indicates that in this region (on average) human rights are relatively better than in Asia and Africa. Oceania, North America and Europe have (on average) clearly better human rights conditions than the other three regions. This regional distribution of human rights conditions is quite similar when using the PTS measure of human rights (see Appendix

B). Furthermore, we also examine the change in the mean of FDI and human rights between 1981 and 2011.

Figure 2: Time-series line plot with mean of FDI and human rights, 1981-2011 (180 countries), CIRI measure.
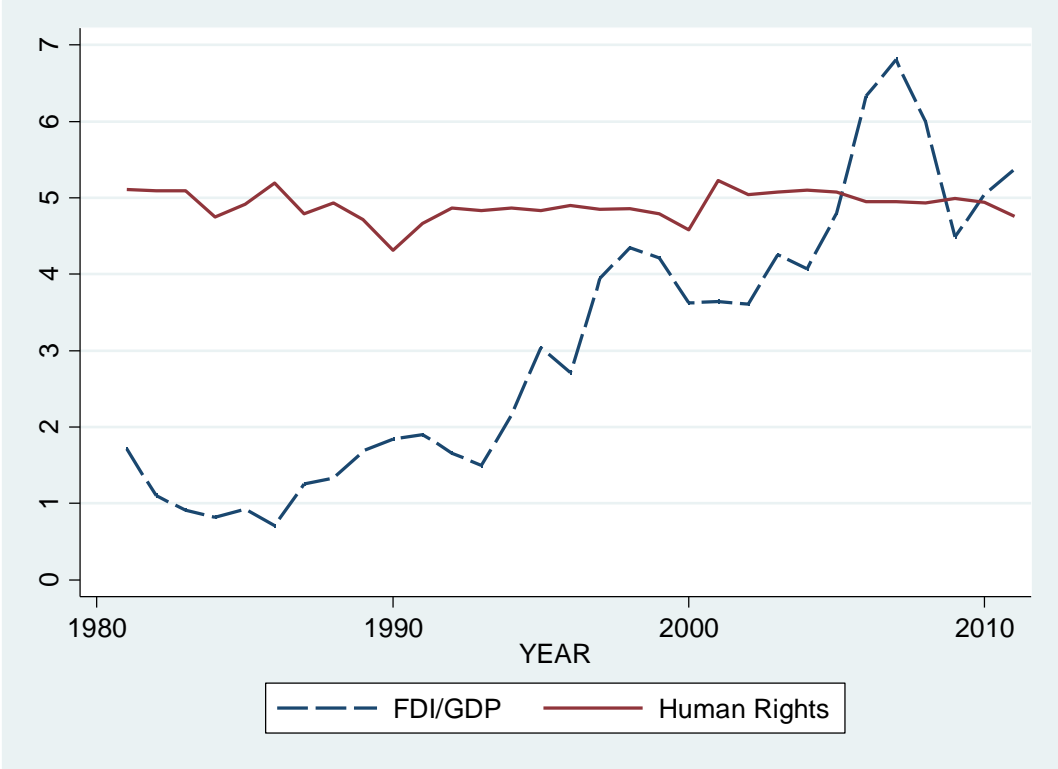
There has been a quite significant and continuous increase in FDI (as % of GDP) from approximately 1986 to 2011, except for some sudden declines, such as the Asian financial crisis in 1997 and the global financial crisis of 2008. Human rights, on the other hand, has stayed relatively consistent around the mean value (4.94) from 1981 to 2011. Solely based on this figure, there does not appear to be a correlation between human rights and foreign investment.

5. Empirical results

5.1 Benchmark model

The results of the benchmark regression are presented in table 3. The human rights variable, using either the CIRI or PTS measure, is insignificant, which implies that human rights conditions in a host country do not affect inward foreign investment. The coefficient for capital is positive and significant, as expected. Countries with more capital on average attract relatively more FDI, ceteris paribus. This is consistent with previous findings that domestic investment acts as a complement, rather than a substitute, to foreign investment. Furthermore, this indicates that host countries with better infrastructural facilities are more likely to receive FDI, as capital also (implicitly) signify the availability of infrastructure.

Contrary to some previous research, I find that the variable for market size (GDP) is *negative* and significant with the PTS measure of human rights. This implies that host countries with large market size are on average relatively *less* likely to receive FDI, ceteris paribus. On the other hand, GDP per capita, which is a proxy for wealth and wages/income, is *positive* and significant with the PTS index. Thus, high-income countries are on average relatively more likely to attract foreign investment. As explained in the literature review, while labor costs (in theory) are assumed to negatively affect FDI, the empirical evidence shows no definitive direction of effect.

In addition to finding that high-income countries are on average more likely to attract FDI, we observed, in the section on descriptive statistics, that regions of predominantly high-income countries (Oceania, North America and Europe) have on average relatively better human rights than regions normally associated with low-income countries (Asia, Africa and Latin America). Thus, while the human rights variable was insignificant, it might be that the impact of human rights on FDI varies depending on how wealthy the host country is, i.e. whether it is a high-income or low-income country. To test this hypothesis, I include an interaction term between human rights and income (proxied by GDP per capita).

Table 3

Benchmark model, 1981-2011, OLS method, fixed effects estimation

	DEPENDENT VARIABLE: FDI/GDP	
	(1)	(2)
VARIABLES	CIRI	PTS
Human Rights	0.0139	-0.110
	(0.0601)	(0.190)
ln GDP	-3.339	-6.315**
	(2.454)	(2.910)
ln GDP/Capita	2.266	4.210*
	(1.966)	(2.143)
Growth	0.0424	0.0134
	(0.0280)	(0.0313)
Openness	-0.00116	-0.00697
	(0.0177)	(0.0156)
Balance/GDP	0.0273	0.0482
	(0.0596)	(0.0457)
Inflation	-0.000272	-0.000386
	(0.000204)	(0.000234)
Rents/GDP	-0.0447	-0.00347
	(0.0650)	(0.0566)
Capital/GDP	0.174***	0.261***
	(0.0625)	(0.0948)
Constant	58.13	110.7**
	(43.27)	(51.70)
Observations	3,570	3,652
No. of Countries	158	154
R-squared	0.109	0.126
Country FE	Yes	Yes
Year FE	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

5.1.1 Benchmark model with interaction term

The results of the interaction model are presented in table 4. The human rights variable is now significant. However, as I have included an interaction term, the impact of human rights on FDI now depends on the value of GDP per capita. As such, the unique effect of human rights on foreign investment is (-1.194) + (0.171*ln GDP/Capita) with the CIRI index[8]. The results show that human rights have a negative impact on FDI up until a certain value or 'threshold' of income (GDP per capita), and above that 'threshold' value the effect of human rights on FDI becomes positive. The threshold value of GDP per capita is 1077 USD with the CIRI measure of human rights[9]. There are 76 countries with GDP per capita less than 1077 USD in a specific year in my benchmark sample, whereas 39 are from Africa, 21 from Asia, 11 from Latin America and the Caribbean, 3 from Europe, and 2 from Oceania. This results in 1,291 observations, from the total of 3,570 observations in the entire benchmark sample. However, in terms of frequency, African countries account for 61 % of the observations, while Asian countries account for 26 %.

Thus, for countries with GDP per capita less than 1077 USD, the impact of human rights on foreign investment is negative. For countries with GDP per capita greater than 1077 USD, the effect of human rights on FDI is positive. Furthermore, the higher the income in a host country, the more positive (or less negative) impact do human rights have on inward FDI. The interaction term is positive and significant, which implies that improvements in human rights increase the inflow of foreign investment relatively more for high-income countries.

The literature review discussed the role and importance of labor costs in the relationship between human rights and FDI. Low wages might be desirable for foreign investors involved in the production of labour-intensive goods, where the share of labor costs of total production costs is still relatively high. As such, governments in low-income countries might use means of repression and human rights abuses to maintain low wages, in order to encourage inward foreign capital. In high-income countries, however, there is more focus on and access to skilled labor, which is intricately reduced by excessive human rights violations. Combined with the

---

[8] Similarly, with the PTS measure, the effect of human rights on FDI is now (-1.917) + (0.25 *ln GDP/Capita). The threshold value of GDP per capita with the PTS index is 2138 USD.

[9] (-1.194) + (0.171*ln GDP/Capita) = 0
   ln GDP/Capita = 1.194/0.171
   ln GDP/Capita = 6.9824
   GDP/Capita = 1077 USD.

aforementioned "spotlight" effect, which is presumably (on average) more pronounced in high-income countries, there might be an incentive for more government respect for human rights in relatively wealthy countries, in order to increase FDI. The next two subsections analyse developed and developing countries separately.

Table 4

Interaction model, 1981-2011, OLS method, fixed effects estimation

	DEPENDENT VARIABLE: FDI/GDP	
	(1)	(2)
VARIABLES	CIRI	PTS
Human Rights	-1.194**	-1.917*
	(0.459)	(1.104)
ln GDP	-2.897	-5.909**
	(2.328)	(2.775)
ln GDP/Capita	1.147	3.056
	(1.750)	(1.871)
Growth	0.0481*	0.0174
	(0.0282)	(0.0307)
Openness	0.000558	-0.00630
	(0.0171)	(0.0153)
Balance/GDP	0.0254	0.0481
	(0.0581)	(0.0454)
Inflation	-0.000310	-0.000401
	(0.000209)	(0.000243)
Rents/GDP	-0.0475	-0.00810
	(0.0647)	(0.0560)
Capital/GDP	0.171***	0.259***
	(0.0609)	(0.0941)
Human Rights*ln GDP/Capita	0.171***	0.250*
	(0.0621)	(0.139)
Constant	55.63	109.6**
	(41.99)	(51.06)
Observations	3,570	3,652
No. of Countries	158	154
R-squared	0.113	0.128
Country FE	Yes	Yes
Year FE	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

5.2 Developed countries

As Blanton and Blanton (2007) define developing countries as non-OECD countries, I define developed countries as OECD countries[10]. However, I exclude Chile, Estonia, Israel, Latvia and Slovenia, as these countries recently became OECD members. Chile, Estonia, Israel and Slovenia became member states in 2010, while Latvia joined in 2016. The results are presented in table 5.

Table 5

Developed countries, 1981-2011, OLS method, fixed effects estimation

	DEPENDENT VARIABLE: FDI/GDP	
	(1)	(2)
VARIABLES	CIRI	PTS
Human Rights	-6.231*	-7.178
	(3.326)	(5.692)
ln GDP	1.203	-0.306
	(6.135)	(6.115)
ln GDP/Capita	-4.395	-1.752
	(6.777)	(6.772)
Growth	-0.113	-0.0912
	(0.154)	(0.152)
Openness	0.0714**	0.0749**
	(0.0316)	(0.0320)
Balance/GDP	0.0960	0.0878
	(0.125)	(0.127)
Inflation	-0.0145	0.00260
	(0.0260)	(0.0285)
Rents/GDP	-0.304	-0.225
	(0.444)	(0.447)
Capital/GDP	0.182	0.134
	(0.131)	(0.130)
Human Rights*ln GDP/Capita	0.680*	0.773
	(0.362)	(0.624)
Constant	2.512	18.18
	(101.6)	(102.0)
Observations	792	759
No. of Countries	30	29
R-squared	0.120	0.115
Country FE	Yes	Yes
Year FE	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

---

[10] List of OECD countries: http://www.oecd.org/about/membersandpartners/list-oecd-member-countries.htm

The human rights variable, along with the interaction term, is significant with the CIRI measure of human rights. Thus, similar to the previous (interaction) model, there appears to be a 'threshold' value even for developed countries, where the effect of human rights on FDI transitions from negative to positive. For developed countries, the threshold value of GDP per capita is 9539 USD[11]. In my sample of developed countries, there are 16 countries which had less than 9539 USD in GDP per capita in a specific year, whereas 11 are from Europe, 3 from Asia, 1 from Latin America, and 1 from Oceania. This results in 170 observations, from the total of 792 observations in the entire developed countries sample. The interaction term is positive, which indicates that an enhancement of human rights increases inward FDI relatively more for developed countries with higher levels of wealth. The only control variable that is significant is openness, with a positive sign. Thus, developed economies with higher degree of global exposure are on average relatively more likely to receive foreign investment, ceteris paribus.

5.3 Developing countries

Developing countries are thus defined as non-OECD countries, and additionally includes those 5 countries (Chile, Estonia, Israel, Latvia and Slovenia) that were excluded from the developed countries model. The results are presented in table 6.

Similar to the developed countries model, the human rights variable, along with the interaction term, is significant with the CIRI measure of human rights. However, the 'threshold' value of GDP per capita is considerably lower for developing countries, at 876 USD[12]. In my sample of developing countries, there are 72 countries which had less than 876 USD in GDP per capita in a specific year, whereas most are African (37) or Asian (21). This results in 1,129 observations, from the total of 2,778 observations in the entire developed countries sample. The higher the GDP per capita in a developing economy, the more positive (or less negative) effect do human rights have on inward FDI.

---

[11] (-6.231) + (0.68*ln GDP/Capita) = 0
    ln GDP/Capita = 6.231/0.68
    GDP/Capita = 9539 USD.
[12] (-0.847) + (0.125*ln GDP/Capita) = 0
    ln GDP/Capita = 0.847/0.125
    GDP/Capita = 876 USD.

Table 6

Developing countries, 1981-2011, OLS method, fixed effects estimation

	DEPENDENT VARIABLE: FDI/GDP	
	(1)	(2)
VARIABLES	CIRI	PTS
Human Rights	-0.847*	-1.655
	(0.460)	(1.096)
ln GDP	-2.450	-5.779**
	(2.319)	(2.611)
ln GDP/Capita	0.525	2.620
	(1.795)	(1.849)
Growth	0.0532*	0.0216
	(0.0286)	(0.0313)
Openness	-0.0107	-0.0156
	(0.0170)	(0.0158)
Balance/GDP	0.0182	0.0446
	(0.0577)	(0.0456)
Inflation	-0.000344*	-0.000428*
	(0.000198)	(0.000237)
Rents/GDP	-0.0388	2.01e-05
	(0.0649)	(0.0569)
Capital/GDP	0.173***	0.264***
	(0.0621)	(0.0965)
Human Rights*ln GDP/Capita	0.125**	0.222
	(0.0630)	(0.139)
Constant	49.93	108.4**
	(41.28)	(47.47)
Observations	2,778	2,893
No. of Countries	128	125
R-squared	0.141	0.156
Country FE	Yes	Yes
Year FE	Yes	Yes

<div align="center">Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1</div>

For developing countries, domestic capital significantly increases the probability of attracting foreign investment, ceteris paribus. Similar to the benchmark model, the GDP variable is negative and significant with the PTS index, implying that developing countries with large market size are relatively less likely to receive FDI. However, future market size and development potential, which is proxied by the growth rate, is *positive* and significant with the CIRI measure of human rights. Openness is insignificant now, which indicates that global exposure of the host economy is only an important determinant of FDI for developed countries.

Inflation is negative and significant. However, the coefficient for inflation is extremely small (in absolute value), which indicates that this result is most likely due to outliers[13]. There are 150 developing countries compared to 30 developed countries in my sample, which inherently results in higher variation or differences in country characteristics in the developing countries model. In addition, as most low-income countries are African or Asian, I further divide the developing countries sample into two additional sub-samples, Asia and Africa, and analyse them separately.

5.4 Asian countries

The results of the Asian model are presented in table 7. The human rights variable and the interaction term are now insignificant. Hence, human rights conditions do not affect inward FDI in this region. The coefficient for market size (GDP) is now *positive* and significant, which indicates that Asian countries with large market size are on average relatively more likely to attract foreign investment, ceteris paribus. Asia contains some of the largest markets globally, such as China, Japan, India, and South Korea. This finding is more in line with previous empirical evidence, which found that market size has a positive impact on FDI. Trade balance is negative and significant. Asian countries with a trade deficit are *more* likely to attract FDI. Similar to the developed countries model, the variable for openness is positive and significant, implying that higher degree of global exposure encourages inward FDI in this region.

The coefficient for natural resources rents is positive and significant, which indicates that countries in this region that are abundant in natural resources have on average a relatively higher probability of receiving foreign capital, ceteris paribus. Asia contains some of the most natural resource dependent countries in the world, such as Kuwait, Saudi Arabia, Iraq, Oman, Turkmenistan, Azerbaijan, United Arab Emirates, and Qatar. Even though FDI in the primary sector has been declining in favour of secondary and tertiary sector investment globally, natural resources endowment still appears to be an important determinant of FDI in Asia. Surprisingly, wages (GDP per capita) do not affect inward FDI. Considering that Asia is an important region

---

[13] As explained in the methodology section, I did exclude extreme outliers for inflation, but I established the upper limit (conservatively) at 10,000 (annual % change in consumer prices) to be confident that my empirical results were reliable. This resulted in the removal of 3 (CIRI) and 4 (PTS) observations. When I set the upper limit at 1,000 (% change), the inflation variable becomes insignificant, which supports that this finding is due to outliers. However, that requires the removal of an additional 25 observations, which would reduce the reliability of my results. Thus, I decided to maintain my initial upper limit of 10,000.

for production of labour-intensive goods, one would anticipate that wages would be an important determinant of foreign investment in this model.

Table 7

Asian countries, 1981-2011, OLS method, fixed effects estimation

	DEPENDENT VARIABLE: FDI/GDP	
	(1)	(2)
VARIABLES	CIRI	PTS
Human Rights	-0.433	-1.649
	(0.775)	(1.567)
ln GDP	6.484*	6.390*
	(3.508)	(3.486)
ln GDP/Capita	-5.582	-5.742
	(3.475)	(3.565)
Growth	-0.0203	-0.0235
	(0.0504)	(0.0474)
Openness	0.0264**	0.0258**
	(0.0115)	(0.0114)
Balance/GDP	-0.138**	-0.128**
	(0.0632)	(0.0623)
Inflation	-0.00238**	-0.00234**
	(0.000961)	(0.00101)
Rents/GDP	0.208**	0.202**
	(0.101)	(0.0986)
Capital/GDP	0.0124	0.0231
	(0.0821)	(0.0844)
Human Rights*ln GDP/Capita	0.0684	0.188
	(0.108)	(0.194)
Constant	-116.2*	-111.4*
	(60.53)	(59.73)
Observations	833	832
No. of Countries	38	38
R-squared	0.142	0.139
Country FE	Yes	Yes
Year FE	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

5.5 African countries

Table 8

African countries, 1981-2011, OLS method, fixed effects estimation

	(1)	(2)
DEPENDENT VARIABLE: FDI/GDP		
VARIABLES	CIRI	PTS
Human Rights	-1.037*	-2.697**
	(0.598)	(1.282)
ln GDP	-1.461	-7.871
	(3.991)	(4.962)
ln GDP/Capita	-2.762	2.095
	(3.182)	(4.016)
Growth	0.0784	0.0697
	(0.0668)	(0.0653)
Openness	-0.0378	-0.0410
	(0.0254)	(0.0246)
Balance/GDP	0.0905	0.129**
	(0.0582)	(0.0487)
Inflation	-0.000962	-0.000868
	(0.00105)	(0.00129)
Rents/GDP	-0.115	-0.0653
	(0.0747)	(0.0760)
Capital/GDP	0.261***	0.430***
	(0.0719)	(0.133)
Human Rights*ln GDP/Capita	0.166*	0.390**
	(0.0905)	(0.177)
Constant	50.02	155.9*
	(68.51)	(83.63)
Observations	1,087	1,133
No. of Countries	47	47
R-squared	0.209	0.223
Country FE	Yes	Yes
Year FE	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The human rights variable, along with the interaction term, is now significant again with either human rights index. Thus, unlike the Asian model, there is a joint effect of human rights and income on FDI for African countries. The 'threshold' value, where the impact of human rights

on FDI transitions from negative to positive, is 516 USD[14] in GDP per capita with the CIRI measure, which is lower than for the developing countries model (876 USD). In my sample of 47 African countries, 31 countries had less than 516 USD in GDP per capita in a specific year. These account for half (544) of the total (1,087) number of observations in the Africa sample. The interaction term is positive, which implies that improvements in human rights conditions increase inward FDI relatively more for African countries with higher levels of income. The coefficient for capital is positive and significant, which was expected as Africa is (on average) *the* most capital scarce region. Contrary to the Asian model, the variable for trade balance is now *positive* and significant with the PTS measure of human rights. Thus, African countries with a trade surplus and capital are on average relatively more likely to attract foreign investment.

6. Robustness check

As a robustness check, I additionally control for the effect of political determinants on inward FDI. Based on the literature review, I include three political variables. These are control of corruption, political stability and absence of violence/terrorism, and rule of law. Data for the political factors is collected from Worldwide Governance Indicators of the World Bank. As explained previously, political variables were not included in the main empirical analysis due to lack of available data for my sample. However, data on these three political factors is available for the years 1996, 1998, 2000, and from 2002 to 2011. The shorter time period obviously reduces the number of observations, from 3,570 in the benchmark model to 1,346 in the robustness check. The political variables are measured from -2.5 to 2.5, where a higher score indicates more control of corruption, political stability, and rule of law in the host country. I only use the CIRI measure of human rights for the robustness check. Due to very high levels of correlation between the political variables, I run multiple regressions where I include only one political factor at a time[15]. The results are presented in table 9.[16]

---

[14] (-1.037) + (0.166*ln GDP/Capita) = 0
   ln GDP/Capita = 1.037/0.166
   GDP/Capita = 516 USD.

[15] The correlation between the political variables are 0.73 (Political Stability and Corruption), 0.77 (Rule of Law and Political Stability), and 0.95 (Rule of Law and Corruption).

[16] I intended to also include skilled labor, proxied by secondary education, in my robustness check. However, similar to the main empirical analysis, including skilled labor resulted in the loss of too many observations, from 1,346 to 1,055. Including skilled labor did not change the results much. The only variables that were still significant were capital and openness, except with rule of law, where also trade balance was significant.

Table 9

Robustness check, CIRI human rights measure, OLS method, fixed effects estimation

			DEPENDENT VARIABLE: FDI/GDP	
VARIABLES	(1)	(2) Corruption	(3) Political Stability	(4) Rule of Law
Human Rights	-0.0824	-0.0966	-0.0257	-0.125
	(0.155)	(0.158)	(0.214)	(0.160)
ln GDP	-2.472	-2.023	-2.320	-2.141
	(5.702)	(5.564)	(5.738)	(5.690)
ln GDP/Capita	-1.299	-1.864	-1.280	-1.865
	(5.676)	(5.570)	(5.762)	(5.721)
Growth	0.0199	0.0150	0.0221	0.0204
	(0.109)	(0.108)	(0.107)	(0.109)
Openness	-0.0432*	-0.0447*	-0.0426*	-0.0449*
	(0.0255)	(0.0258)	(0.0256)	(0.0257)
Balance/GDP	0.0648	0.0662	0.0654	0.0644
	(0.0838)	(0.0833)	(0.0833)	(0.0836)
Inflation	0.00542	0.00541	0.00564	0.00539
	(0.00575)	(0.00578)	(0.00565)	(0.00586)
Rents/GDP	-0.142	-0.129	-0.146	-0.129
	(0.167)	(0.162)	(0.165)	(0.165)
Capital/GDP	0.385***	0.383***	0.386***	0.383***
	(0.0896)	(0.0884)	(0.0895)	(0.0894)
POLITICAL		1.583	-0.503	1.704
		(1.213)	(0.897)	(1.336)
Constant	69.47	63.43	65.34	66.45
	(96.20)	(93.92)	(95.89)	(95.76)
Observations	1,346	1,346	1,346	1,346
R-squared	0.079	0.080	0.079	0.080
No. of Countries	157	157	157	157
Country FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Similar to the benchmark model without the interaction term, the human rights variable is insignificant in the robustness check. The three political variables are also insignificant, which indicates that corruption, political stability, and rule of law, do not affect inward FDI. This is especially surprising in regards to corruption. While there is no consensus on the significance of political factors in general, previous findings largely support the negative relationship between corruption and foreign investment. The coefficient for capital is positive and significant, which is evidently an important determinant of FDI for developing countries, and especially for African countries. The variable for openness is *negative* and significant, implying that global exposure of the host economy discourages foreign investment. After I included an interaction between human rights and GDP per capita in the benchmark model, I discovered that the effect of human rights on FDI is different for low-income and high-income countries. To examine if this finding is robust, I include the interaction term in addition to the political variables.

6.1 Robustness check with interaction term

The results of the robustness check with the interaction term are presented in table 10. Even after controlling for corruption, political stability, and rule of law, the human rights variable remains significant when the interaction term is included. This supports the finding that there is a joint effect of human rights and income on foreign investment. The 'threshold' value of GDP per capita, in the second column with the corruption variable, is relatively higher than in the interaction model, at 2898 USD[17]. The interaction term is positive and significant with any of the political variables, which indeed implies that enhancement of human rights increases inward FDI relatively more for wealthy countries.

---

[17] $(-1.993) + (0.25*\ln \text{GDP/Capita}) = 0$
  $\ln \text{GDP/Capita} = 1.993/0.25$
  $\ln \text{GDP/Capita} = 7.972$
  $\text{GDP/Capita} = 2898 \text{ USD}.$

Table 10

Robustness check with interaction, CIRI human rights measure, OLS method, fixed effects estimation

	DEPENDENT VARIABLE: FDI/GDP			
	(1)	(2)	(3)	(4)
VARIABLES		Corruption	Political Stability	Rule of Law
Human Rights	-2.072**	-1.993**	-1.995**	-2.163**
	(0.855)	(0.856)	(0.854)	(0.853)
ln GDP	-1.478	-1.117	-1.390	-1.103
	(5.633)	(5.509)	(5.652)	(5.610)
ln GDP/Capita	-3.014	-3.446	-2.967	-3.654
	(5.705)	(5.601)	(5.768)	(5.738)
Growth	0.0270	0.0222	0.0284	0.0277
	(0.110)	(0.108)	(0.108)	(0.110)
Openness	-0.0399	-0.0414*	-0.0395	-0.0416*
	(0.0243)	(0.0247)	(0.0245)	(0.0246)
Balance/GDP	0.0555	0.0572	0.0561	0.0548
	(0.0802)	(0.0801)	(0.0795)	(0.0799)
Inflation	0.00539	0.00538	0.00554	0.00535
	(0.00566)	(0.00569)	(0.00558)	(0.00578)
Rents/GDP	-0.147	-0.135	-0.149	-0.133
	(0.167)	(0.162)	(0.164)	(0.165)
Capital/GDP	0.371***	0.369***	0.372***	0.368***
	(0.0852)	(0.0844)	(0.0853)	(0.0850)
Human Rights*	0.262**	0.250**	0.257**	0.268**
ln GDP/Capita	(0.113)	(0.114)	(0.111)	(0.113)
POLITICAL		1.434	-0.354	1.809
		(1.210)	(0.880)	(1.315)
Constant	58.54	53.58	55.85	55.09
	(94.51)	(92.51)	(93.91)	(93.90)
Observations	1,346	1,346	1,346	1,346
R-squared	0.081	0.083	0.082	0.083
No. of Countries	157	157	157	157
Country FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

7. Conclusion

The main goal of this thesis was to empirically analyse the effect of human rights on inward foreign direct investment. I used a fixed effects model with strongly balanced panel data of 180 countries from 1981 to 2011. Two different indicators of human rights were employed, CIRI and PTS, which measured physical integrity rights. The initial results from the benchmark model showed that human rights (on its own) do not affect FDI. However, after investigating the joint impact of human rights and income (proxied by GDP per capita) on foreign investment, I discovered that the effect of human rights on FDI is negative for relatively low-income countries, and positive for high-income countries. The 'threshold' value of GDP per capita, where the effect of human rights on foreign investment transitions from negative to positive, depends on the sample of countries. It was 1077 USD in the benchmark model, 876 USD for the sample of developing countries, 516 USD for African countries, and considerably higher in the developed countries model at 9539 USD, while there was no joint effect of human rights and income on FDI for Asian countries. Furthermore, I found that the higher the income is in a host country, the more positive (or less negative) impact do human rights have on FDI. Thus, improvements in human rights conditions increase foreign investment relatively more for wealthy countries. The results are supported by the robustness check, where I additionally controlled for the effect of political determinants (corruption, political stability, and rule of law).

These findings emphasise the importance of the relationship between human rights and wealth, and their joint effect on foreign investment, which has not been empirically investigated before. In this sense, my thesis offers new information on the dynamic relationship between human rights and FDI. This thesis has focused on one specific subset of human rights, namely physical integrity rights. In order to increase knowledge on the impact of human rights on foreign investment, future research should also examine other subsets of human rights, as increasing amount of data becomes available. In addition, more empirical analysis should also be dedicated to the relationship between human rights and other relevant factors besides income, and their joint effect on foreign direct investment.

References

Al-Sadig, A. (2009). "The Effects of Corruption on FDI Inflows", *Cato Journal*, Vol. 29 (2), pp. 267-294.

Andvig, J. C., Fjeldstad, O-H., Amundsen, I., Sissener, T. and Søreide, T. (2000). "Research on Corruption: A policy oriented survey", Commissioned by NORAD, Bergen/Oslo, December.

Asiedu, E. (2006). "Foreign Direct Investment in Africa: The Role of Natural Resources, Market Size, Government Policy, Institutions and Political Instability", *The World Economy*, Vol. 29 (1), pp. 63-77.

Bengoa, M. and Sanchez-Robles, B. (2003). "Foreign direct investment, economic freedom and growth: new evidence from Latin America", *European Journal of Political Economy*, Vol. 19 (3), pp. 529-545.

Billington, N. (1999). "The location of foreign direct investment: an empirical analysis", *Applied Economics*, Vol. 31 (1), pp. 65-76.

Blanton, S. L. and Blanton, R. G. (2007). "What Attracts Foreign Investors? An Examination of Human Rights and Foreign Direct Investment", *The Journal of Politics,* Vol. 69 (1), pp. 143-155.

Blonigen, B. A. (2005). "A Review of the Empirical Literature on FDI Determinants", *Atlantic Economic Journal*, Vol. 33 (4), pp. 383-403.

Borensztein, E., De Gregorio, J. and Lee, J-W. (1998). "How does foreign direct investment affect economic growth?", *Journal of International Economics*, Vol. 45 (1), pp. 115-135.

Busse, M. and Hefeker, C. (2007). "Political risk, institutions and foreign direct investment", *European Journal of Political Economy,* Vol. 23 (2), pp. 397-415.

Bussmann, M. (2010). "Foreign direct investment and militarized international conflict", *Journal of Peace Research,* Vol. 47 (2), pp. 143-153.

Chakrabarti, A. (2001). "The Determinants of Foreign Direct Investment: Sensitivity Analyses of Cross-Country Regressions", *KYKLOS*, Vol. 54 (1), pp. 89-114.

Cingranelli, D. L. and Richards, D. L. (1999). "Measuring the Level, Pattern, and Sequence of Government Respect for Physical Integrity Rights", *International Studies Quarterly*, Vol. 43 (2), 407-18.

Cingranelli, D. L., Richards, D. L. and Clay, K. C. (2014). "The CIRI Human Rights Dataset", Version 2014.04.14, http://www.humanrightsdata.com.

Collier, P. (2007). *The Bottom Billion: Why the Poorest Countries Are Failing and What Can Be Done About It,* Oxford: Oxford University Press.

Collingsworth, T., Goold, J. W. and Harvey, P. J. (1994). "Labor and Free Trade: Time for a Global New Deal", *Foreign Affairs*, Vol. 73 (1), pp. 8-13.

Culem, C. G. (1988). "The Locational Determinants of Direct Investments Among Industrialized Countries", *European Economic Review*, Vol. 32 (4), pp. 885-904.

Dasgupta, S., Mody, A. and Sinha, S. (1996). "Japanese Multinationals in Asia: Capabilities and Motivations", *World Bank,* Policy Research Working Paper 1634 (WPS1634).

de Mello, Jr. L. R. (1999) "Foreign direct investment-led growth: evidence from time series and panel data", *Oxford Economic Papers*, Vol. 51 (1), pp. 133-151.

Dunning, J. H. (1981). "Explaining the International Direct Investment Position of Countries: Towards a Dynamic or Developmental Approach", *Weltwirtschaftliches Archiv,* Vol. 117 (1), pp. 30-64.

Edwards, S. (1990). "Capital Flows, Foreign Direct Investment, and Debt-Equity Swaps in Developing Countries", *National Bureau of Economic Research (NBER),* Working Paper No. 3497.

Habib, M. and Zurawicki, L. (2002). "Corruption and Foreign Direct Investment", *Journal of International Business Studies*, Vol. 33 (2), pp. 291-307.

Hausman, J. A. (1978). "Specification Tests in Econometrics", *Econometrica,* Vol. 46 (6), pp. 1251-1271.

Hobden, S. and Jones, R. W. (2011). "Marxist theories of international relations", in Baylis, J., Smith, S. and Owens, P. (eds). *The Globalization of World Politics,* Oxford: Oxford University Press, 5th edition, pp. 130-147.

International Monetary Fund (IMF) (1993). "Balance of Payments Manual", 5th edition (BPM5), Washington, D.C.

Jensen, N. (2008). "Political Risk, Democratic Institutions, and Foreign Direct Investment", *The Journal of Politics,* Vol. 70 (4), pp. 1040-1052.

Kim, D-H. and Trumbore, P. F. (2010). "Transnational mergers and acquisitions: The impact of FDI on human rights, 1981-2006", *Journal of Peace Research,* Vol. 47 (6), pp. 723-734.

Kravis, I. B. and Lipsey, R. E. (1982). "The Location of Overseas Production and Production for Export by U.S. Multinational Firms", *Journal of International Economics*, Vol. 12 (3-4), pp. 201-223.

Le Billon, P. (2005). *Fuelling War: Natural resources and armed conflict,* Adelphi Paper 373, Oxon: Routledge for The International Institute for Strategic Studies.

Li, Q. (2008). "Foreign direct investment and interstate military conflict", *Journal of International Affairs,* Vol. 62 (1), pp. 53-66.

Lim, D. (1983). "Fiscal Incentives and Direct Foreign Investment in Less Developed Countries", *The Journal of Development Studies*, Vol. 19 (2), pp. 207-212.

Lunn, J. (1980). "Determinants of U.S. direct investment in the E.E.C.: Further evidence", *European Economic Review*, Vol. 13 (1), pp. 93-101.

Maxfield, S. (1998). "Understanding the Political Implications of Financial Internationalization in Emerging Market Countries", *World Development*, Vol. 26 (7), pp. 1201-1219.

Moosa, I. A. and Cardak, B. A. (2006). "The determinants of foreign direct investment: An extreme bounds analysis", *Journal of Multinational Financial Management*, Vol. 16 (2), pp.199-211.

Organisation for Economic Co-operation and Development (OECD) (2008). *OECD Benchmark Definition of Foreign Direct Investment*, 4th edition (BD4), Paris.

Poe, S. C., Carey, S. C. and Vazquez, T. C. (2001). "How are These Pictures Different? A Quantitative Comparison of the US State Department and Amnesty International Human Rights Reports, 1976-1995", *Human Rights Quarterly*, Vol. 23 (3), pp. 650-677.

Richards, D. L., Gelleny, R. D. and Sacko, D. H. (2001). "Money with a Mean Streak? Foreign Economic Penetration and Government Respect for Human Rights in Developing Countries", *International Studies Quarterly*, Vol. 45 (2), pp. 219-239.

Rohwer, A. (2009). "Measuring Corruption: A Comparison between the Transparency International's Corruption Perceptions Index and the World Bank's Worldwide Governance Indicators", *CESifo DICE Report 3/2009,* pp. 42-52.

Root, F. R. and Ahmed, A. A. (1979). "Empirical Determinants of Manufacturing Direct Foreign Investment in Developing Countries", *Economic Development and Cultural Change*, Vol. 27 (4), pp. 751-767.

Sader, F. (1993). "Privatization and Foreign Investment in the Developing World, 1988-92", *World Bank,* Working Papers (WPS) 1202.

Sant'Ana, M. (2009). "Foreign Direct Investment and Human Development: Two Approaches to Assessing Impacts on Human Rights", *Human Rights & International Legal Discourse*, Vol. 3 (2), pp. 229-262.

Sethi, S. P. and Luther, K. A. N. (1986). "Political Risk Analysis and Direct Foreign Investment: Some Problems of Definition and Measurement, *California Management Review*, Vol. 28 (2), pp. 57-68.

Schneider, F. and Frey, B. S. (1985). "Economic and Political Determinants of Foreign Direct Investment", *World Development,* Vol. 13 (2), pp. 161-175.

Singh, H. and Jun, K. W. (1995). *Some New Evidence on Determinants of Foreign Direct Investment in Developing Countries*, Policy Research Working Paper No. 1531, The World Bank.

Spar, D. (1996). "Trade, Investment, and Labor: The Case of Indonesia", *The Columbia Journal of World Business*, Vol. 31 (4), pp. 30-39.

Spar, D. (1999). "Foreign Investment and Human Rights", *Challenge*, Vol. 42 (1), pp. 55-80.

The Economist (1997). "Worldbeater, Inc", 20 November, available at http://www.economist.com/node/106613, accessed 03 June 2017.

Torrisi, C. R. (1985). "The Determinants of Direct Foreign Investment in a Small LDC", *Journal of Economic Development*, Vol. 10 (1), pp. 29-45.

Tsai, P. L. (1994). "Determinants of Foreign Direct Investment and Its Impact on Economic Growth", *Journal of Economic Development*, Vol. 19 (1), pp. 137-163.

United Nations (UN) (1948). *217 A (III). Universal Declaration of Human Rights*, Resolution adopted by the General Assembly, A/RES/3/217 A, 10 December 1948.

United Nations Conference on Trade and Development (UNCTAD) (2002). *World Investment Report 2002: Transnational Corporations and Export Competitiveness,* UNCTAD/WIR/2002.

United Nations Conference on Trade and Development (UNCTAD) (2016). *World Investment Report 2016 – Investor Nationality: Policy Challenges,* UNCTAD/WIR/2016.

United Nations Conference on Trade and Development (UNCTAD) (2017). *World Investment Report 2017: Investment and the Digital Economy,* UNCTAD/WIR/2017.

United Nations General Assembly (UNGA) (2009). *Implementing the responsibility to protect,* Report of the Secretary-General, A/63/677.

Wei, S-J. (2000). "How Taxing is Corruption on International Investors?", *The Review of Economics and Statistics*, Vol. 82 (1), 1-11.

Wheeler, D. and Mody, A. (1992). "International investment location decisions: The case of U.S. firms", *Journal of International Economics*, Vol. 33 (1-2), pp. 57-76.

Wood, R. M. and Gibney, M. (2010). "The Political Terror Scale (PTS): A Re-introduction and a Comparison to CIRI", *Human Rights Quarterly,* Vol. 32 (2), pp. 367-400.

Appendix

Appendix A: List of countries

Afghanistan	Congo, Democratic Republic of	Hungary	Mexico	Sierra Leone
Albania		Iceland	Micronesia, Federated States of	Singapore
Algeria	Congo, Republic of	India		Slovak Republic
Andorra	Costa Rica	Indonesia	Moldova	Slovenia
Angola	Cote d'Ivoire	Iran	Monaco	Solomon Islands
Antigua and Barbuda	Croatia	Iraq	Mongolia	Somalia
Argentina	Cuba	Ireland	Morocco	South Africa
Armenia	Cyprus	Israel	Mozambique	Spain
Australia	Czech Republic	Italy	Namibia	Sri Lanka
Austria	Denmark	Jamaica	Nauru	Sudan
Azerbaijan	Djibouti	Japan	Nepal	Suriname
Bahamas	Dominica	Jordan	Netherlands	Swaziland
Bahrain	Dominican Republic	Kazakhstan	New Zealand	Sweden
Bangladesh	Ecuador	Kenya	Nicaragua	Switzerland
Barbados	Egypt	Kiribati	Niger	Syria
Belarus	El Salvador	Korea, Democratic People's Republic of	Nigeria	Tajikistan
Belgium	Equatorial Guinea		Norway	Tanzania
Belize	Eritrea	Korea, Republic of	Oman	Thailand
Benin	Estonia	Kuwait	Pakistan	Togo
Bhutan	Ethiopia	Kyrgyz Republic	Palau	Tonga
Bolivia	Fiji	Laos	Panama	Trinidad and Tobago
Bosnia Herzegovenia	Finland	Latvia	Papua New Guinea	Tunisia
Botswana	France	Lebanon	Paraguay	Turkey
Brazil	Gabon	Lesotho	Peru	Turkmenistan
Brunei	Gambia, The	Liberia	Philippines	Tuvalu
Bulgaria	Georgia	Libya	Poland	Uganda
Burkina Faso	Germany	Liechtenstein	Portugal	Ukraine
Burundi	Ghana	Lithuania	Qatar	United Arab Emirates
Cambodia	Greece	Luxembourg	Romania	United Kingdom
Cameroon	Grenada	Macedonia	Russia	United States of America
Canada	Guatemala	Madagascar	Rwanda	
Central African Republic	Guinea	Malawi	Samoa	Uruguay
Chad	Guinea-Bissau	Malaysia	San Marino	Uzbekistan
Chile	Guyana	Maldives	Sao Tome and Principe	Vanuatu
China	Haiti	Mali	Saudi Arabia	Venezuela
Colombia	Honduras	Mauritania	Senegal	Vietnam
Comoros		Mauritius	Seychelles	Zimbabwe

Appendix B: Descriptive statistics with the PTS measure of human rights

Table 2

Summary statistics, benchmark sample, PTS human rights measure

Variable	Observations	Mean	Std. Dev.	Min	Max
FDI/GDP	3,652	3.2	6.66	-58.97	161.82
Human Rights (PTS)	3,652	3.59	1.14	1	5
(ln) GDP	3,652	23.68	2.19	18.15	29.43
(ln) GDP/Capita	3,652	7.76	1.56	4.61	11.63
Growth	3,652	3.58	4.98	-30.14	66.58
Openness	3,652	77.5	48.14	6.32	531.73
Balance/GDP	3,652	-4.56	17.25	-344.75	50.68
Inflation	3,652	36.61	282.57	-35.83	7485.49
Rents/GDP	3,652	6.99	10.56	0	89.16
Capital/GDP	3,652	21.93	9.76	-2.42	219.06

Figure 1: Distribution of human rights conditions in different regions, 1981-2011 (180 countries), CIRI measure.