

Chinese Foreign Direct Investment in Latin America

An analysis of the motives and the applicability of existing FDI theories

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Authors:

Michael Rukundo Knabe

Leonardo Berardi

Supervisor

Ari Kokko, CBS Department of International Economics and Management

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Authorship

This Master Thesis was written in an entirely collaborative manner with each author equally contributing to the finished research.

Executive Summary

Chinese outward foreign direct investment (FDI) in Latin America has increased significantly in recent years, especially in the period after the global crisis of 2007-2008. As China's growing involvement in the region has just started to evolve, the phenomenon is still poorly understood and has not been subject to broad empiric research. This thesis thus attempts to identify the motives that drive such FDI from China, by adopting panel data analysis of 15 years of Chinese FDI activity across 17 Latin American countries. In order to locate potential implications emerged after 2007, a structural break is introduced to best capture the differences between before and after the crisis. Also, a comparative analysis with The Netherlands is carried out in the last part of this thesis, in order to investigate on the potential differences that drive FDI into Latin America between China and developed economies.

To provide theoretical support to the analysis, the authors extensively review the main theories regarding FDI theory, highlighting the main studies from the literature. Then, through a critical screening, the most relevant concepts are nested to develop the underlying hypotheses for the statistical regression. In particular, 3 different models are adopted throughout this thesis to investigate on the FDI drivers of Chinese FDI outflows in Latin America. While the first is based on concepts from mainstream FDI theory, the second model introduces elements of social and political ties between China and the host country, in order to verify the existence of unique investment motives. A third model is then introduced with the purpose of testing for possible differences with investors from developed countries.

This thesis finds that traditional FDI theories are well explanatory of Chinese investment activities in Latin America, while little or no empirical evidence is found in support of existing social and political linkages. Moreover, some of the motives that drive Chinese FDI into Latin America appear to be different when compared to the case of The Netherlands. In particular, the role of institutions, the cultural distance and the presence of natural resources in the host country seem to be unique driving factors for China.

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1. Introduction

Over the past thirty years, China's economy has grown significantly at double digits. Historically, China has had remarkable success in obtaining foreign direct investment since opening its economy to the rest of the world and it was able to become the largest global FDI recipient in 2003 (Cheng & Ma, 2010). The initiation of the open-door policy in the late 1970s and the go-global policy in 1999 have changed China's role within the global climate. In the early 2000s, the Chinese government expressed its desire for Chinese companies to internationalize and introduced various FDI-facilitating systems and policies. In the context of the global crisis, China gained importance as a source of global FDI, as policymakers saw undervalued assets, especially in natural and energy resources (Atlantic Council, 2017). In 2012, China's outward FDI flows numbered \$87.8 billion, placing China among the top three largest outward investors on the global stage for the first time (ECLAC, 2013). Over the course of 2016, China's outward FDI surpassed \$200 billion, accounting for more than 10% of global FDI in that year, compared to less than 2% of global FDI flows a decade before (Atlantic Council, 2017).

In that context, China has greatly increased foreign direct investments into Latin America over the past years to improve its' presence and economic leverage within the region (ECLAC, 2013). Chinese companies are moving to Latin America with great speed; overall investments into the region number more than \$110 billion since 2003, with investments averaging around \$10 billion per year since 2010 (Atlantic Council, 2017). Furthermore, president Xi Jinping announced in 2015 that China was planning to invest \$250 billion over the next 10 years in Latin America (Reuters, 2015).

China's global expansion of FDI is rebalancing the role of traditional, i.e. Western, investors within the region. This phenomenon of major economic and political rebalancing from the West to the East is known as "shifting wealth" (Atlantic Council, 2017). The increasing influence of China is partly a result of reduced engagement in the region by the United States, which partly shifted its attention elsewhere. Additionally, the recent exit of the U.S. from the Trans-Pacific-Partnership suggests that this trend will continue and amongst others, president Macri of Argentina has called China a 'strategic partner'.

Apart from improving its' influence, China is looking to achieve maintained market access for its export sector and aims to secure access to cheap natural resources to support its growing economy (Atlantic Council, 2017). Finally, China has developed a new policy paper in 2016 which further highlights its' planned engagement in the community of Latin America and Caribbean States (MOFCOM, 2016).

As China's direct investment in the region has just started to evolve, the phenomenon is still poorly understood and has not been subject to broad empiric research. On the one hand, Chinese corporations' motives, strategy and procedures are still not well understood by Latin America's governments, businesses and the public. On the other hand, it has been highlighted that Chinese companies are still learning to operate in an economic environment that is very different from that of their home country (ECLAC, 2013). Because of China's growing involvement and aim to become more and more involved within the region, it is therefore important to identify the motives behind Chinese investment decisions on a broader scale, so that the necessity and characteristics of policy responses can become assessable.

Although literature regarding Chinese outward FDI has exponentially grown over time, findings regarding determinants and motivations are still mixed, leading to contradictory conclusions. In particular, while some scholars base their argumentation on conventional FDI theories, others find that new frameworks, which are specifically designed for investors from emerging economies, are essential to account for the FDI patterns of Chinese companies (e.g. Cheung & Qian, 2009; Buckley et al., 2007; Deng, 2004; Ramasamy et al., 2012). This unsatisfactory state leads to further uncertainty surrounding Chinese outward FDI.

Thus, in contribution to research on determinants of Chinese outward FDI in Latin America, the authors state their main research question as follows:

“Why do Chinese companies engage in FDI into Latin American countries, are motives different from European investors and which implications arise for the applicability of theoretical concepts?”

The main research question is phrased very broadly on purpose, as it incorporates a number of subordinate questions that will be aimed to answer over the course of this thesis. With the purpose of best addressing them, this thesis presents an analysis that is structured into four major parts. (1) A determination of host country factors that attract Chinese FDI in Latin America. (2) An analysis of how Chinese FDI in Latin America has developed over time regarding volume and motives, taking into account the global financial crisis. (3) A comparison of Latin American host country factors that attract FDI from a developed investor versus China as an investor. (4) The comparison of China-specific results to existing theoretical frameworks and literature. Each subordinate research question is elaborated in brief below.

Question 1:

“What are the host country determinants which attract Chinese FDI?”

The host country characteristics that attract investments from Chinese firms can suggest which reasons lay behind the decisions taken to expand internationally. In order to investigate this subordinate research question, a quantitative approach to analyze panel data of 18 Latin American host countries over a time period of 13 years (2003 - 2015) was undertaken by the authors. Precisely, data has been collected in order to build multiple regression analyses considering annual net FDI outflows from China made in a certain year and country as the dependent variable.

Question 2:

“How has Chinese FDI in Latin America developed over time?”

Apart from a descriptive analysis of both FDI volumes and locational as well as sectoral distribution, the authors take particular interest in potential effects of the global financial crisis on the investment motives of Chinese corporations. To identify those changes, the overall time-frame of the sample is additionally divided into two sub time-frames, ranging from 2003 to 2007 and 2008 to 2015, respectively. The regression analysis and the discussion of results therefore focuses on all three periods.

Question 3:

“Are motives different compared to investors from developed countries?”

Firms from different countries tend to take overseas investment decisions based on location factors which allow favorable market conditions. Many more factors determine unique motivations of a particular investor but literature agrees upon differences in economic development stages of home countries constituting a key factor. In this context, the authors choose The Netherlands as a benchmark investor¹. In doing so, they are able to analyze changes in motivations due to the level of economic development. As highlighted in Question 2, the comparative analysis will focus on all three periods.

Question 4:

“In which way do our findings support or contradict the existing literature?”

The findings of the quantitative analysis afore mentioned will be used to evaluate existing theoretical concepts aiming to explain conventional and China-specific FDI upon their applicability to the case of China in Latin America. The aim is to identify which theories are best suited to explain Chinese foreign direct investments in general and within the region and thus contribute towards shedding light on the contradictory results that literature has come up with. To test the applicability, the authors develop two different statistical models. The first model is based on general FDI theory, the second one adds onto model one with China-specific variables that were derived from the literature².

¹ A brief explanation of the motivation behind choosing The Netherlands can be found in section 8.3.

² For further reference, check Chapter 6 of Hypotheses Development

Structure of the Thesis

This thesis constitutes of a total of ten different Chapters, each divided into related sections and subsections. After introduction, the second Chapter presents a descriptive overview of global Chinese outward FDI, highlighting the main trends and historical records in the Latin American region. Then, the research design adopted by this thesis is described in the following Chapter 3. Chapter 4 extensively introduces the main theories of FDI while Chapter 5 summarizes the existing literature on Chinese outward foreign investment. Based on these, the development of the hypotheses for the regression analysis is presented in Chapter 6.

Chapter 7 introduces the methodologies adopted in the statistical analysis and in the data collection process, as well as their validity and reliability. Chapter 8 dives into the quantitative analysis of the FDI determinants conducted with the aid of three different regression models. A critical discussion of the findings for each model concludes the different sections of the Chapter. The major limitations of this thesis are summarized in Chapter 9. Finally, the authors present their conclusions and arguments for further research. in Chapter 10.

2. Chinese FDI – a descriptive overview

This Chapter aims to provide an overview regarding the development of global Chinese FDI and the related institutional changes that happened within the country. Also, a brief description of Chinese FDI in Latin America is given regarding host market characteristics and industry distribution. Moreover, a few issues that Chinese investors are facing at home are being highlighted as they may potentially create a unique environment for Chinese corporations that are looking to invest abroad.

Finally, it needs to be highlighted how the authors further intend to use the information that is presented to aid in answering the first subsequent research question. Apart from giving a comprehensive overview over global and Latin American Chinese-based FDI, the findings can also contribute to evaluating the motives of Chinese investors.

2.1 Historical development of Chinese FDI

As initially mentioned in the introductory Chapter, China has had impressive success in obtaining foreign direct investment once the country opened up its economy to the rest of the world. To illustrate, China has received over \$500bn in FDI since 1978. Adding onto becoming the largest developing country FDI recipient in 1993, it also managed to pass the United States to become the largest global FDI recipient in 2003 (Cheng & Ma, 2010).

Within the last decades, China has changed from being only a large recipient of FDI to becoming a major global source of outward foreign direct investments (OFDI). The country started to invest heavily abroad after having undergone economic reforms and initiating the open-door policy in the late 1970s. Nonetheless, initially, capital was limited, Chinese corporations lacked experience and investments abroad were mainly undertaken by state-owned enterprises (SOEs) (Wu & Chen, 2001). To ensure that Chinese OFDI became an integrated part of the Chinese economy, the government further opened up the country to FDI in 1980s. Also, it began to incentivize Chinese corporations to invest overseas and allow certain amounts of controlled OFDI (Voss et al., 2008).

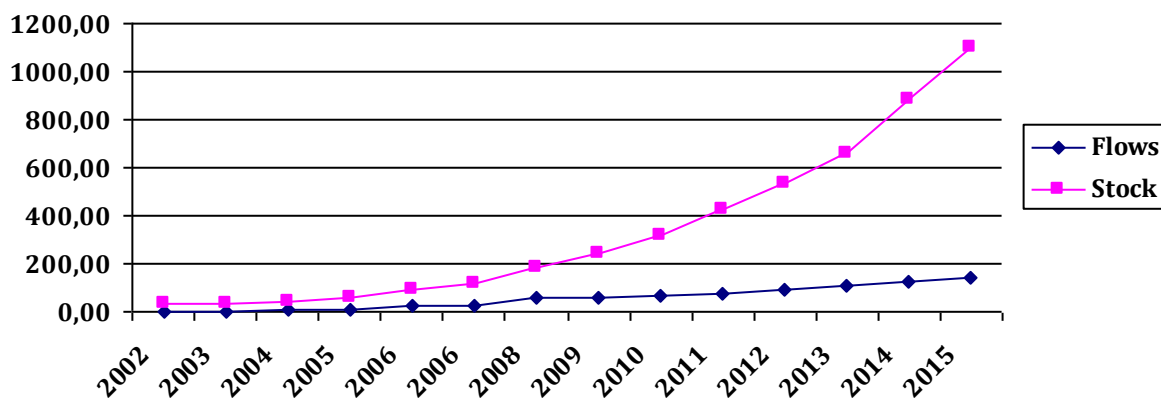
Deng Xiaoping, who took office as president in 1978, undertook a grand tour of Southern China in 1992 to speed up economic reforms, further open up the economy and push economic liberalization forward (Van Dijk, 2009). This tour marked a clear departure from the restrictive and constraining policies; Chinese OFDI became part of China's national economic development plan and outward

investments increased (Voss et al., 2008; Kolstad & Wiig, 2012). Increasingly more private Chinese corporations that were looking to enter new markets, secure trade opportunities or obtain resources, started investing abroad during the 1990s (Wu & Chen, 2001).

To further illustrate, China's OFDI increased from \$35m in 1980 to \$134m in 1984 (Cai, 1999). One year later, FDI outflows reached \$628m and by 1990, they numbered \$830m (Cai, 1999). Almost two thirds of China's OFDI went to Asia from 1979 to 1993 with Hong Kong and Macau constituting 61% of total flows. Apart from Asia, North America (15%), Oceania (8%), Europe (7%), Africa (2%) and Latin America (2%) were other major investment destinations (Cai, 1999).

Moreover, the 'go global' strategy was introduced in 1999. In particular, this policy focused on establishing an institutional environment that promoted outward investments, as it was intended to encourage Chinese corporations through tax benefits and loans to invest abroad and therefore become more competitive on a global scale (Deng, 2007; Voss et al., 2008). The strategy became a formal policy in the context of the 10th Five-Year Plan in 2001. Figure 1 illustrates that Chinese OFDI significantly increased after the go global strategy was put into action.

Figure 1: Chinese outward FDI, USD billions



(Source: Own creation based on MOFCOM, 2015).

Within the last decade, Chinese OFDI has been growing rapidly. In 2005, China ranked 27th among all outward investors and 4th among developing countries³ and accounted for 1.3% of total global OFDI flows (Cheung & Qian, 2009). According to the 2015 Statistical Bulletin of China's Outward Foreign Direct Investment, China's outward FDI net flows reached \$145,67 billion in 2015, allowing it to secure the 2nd position in the global ranking. In 2016, China's OFDI reached new heights as it surpassed \$200 billion and Chinese corporations accounted for more than 10% of global foreign direct investment flows (Atlantic Council, 2017). Overall, China was able to climb from the 21st place globally in terms of outward FDI flows in 2003 to securing the second place in 2015. In terms of FDI Stock, it went from 25th place in 2003 with \$33.2 billion to 8th place in 2015 with \$1,097.86 billion (MOFCOM, 2015).

The type of Chinese OFDI has changed as well. In 2006, total FDI flows (\$21.16 billion) were composed of 24% of incremental equity, 31.4% of reinvested earnings and 44.2% of debt instrument investments. In 2015, FDI flows (\$145.67 billion) consisted of 66.4% incremental equity, 26.0% reinvested earnings and 7.6% debt instrument investments (MOFCOM, 2015).

³ Excluding offshore financial centres

Table 1: Largest host countries of Chinese outward FDI, 2003-2015 net flows, current USD millions.

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total 03-15
Hong Kong, China	1148,9	2628,3	3419,7	6930,9	13732,3	38640,3	35600,5	38505,2	35654,84	51238,44	62823,78	70867,3	89789,78	450980,24
Cayman Islands	806,61	1286,1	5162,7	7832,7	2601,59	1524,01	5366,3	3496,13	4936,46	827,43	9253,4	4191,72	10213,03	57498,18
British Virgin Islands	209,68	385,52	1226	538,11	1876,14	2104,33	1612,05	6119,76	6208,33	2239,28	3221,56	4570,43	1849	32160,19
United States	65,05	119,93	231,82	198,34	195,73	462,03	908,74	1308,29	1811,42	4047,85	3873,43	7596,13	8028,67	28847,43
Australia	30,39	124,95	193,07	87,6	531,59	1892,15	2436,43	1701,7	3165,29	2172,98	3457,98	4049,11	3401,31	23244,55
Singapore	-3,21	47,98	20,33	132,15	397,73	1550,95	1414,25	1118,5	3268,96	1518,75	2032,67	281,63	10452,48	22233,17
United Kingdom	2,11	29,39	24,78	35,12	556,54	16,71	192,17	330,33	1419,7	2774,73	1419,58	1498,9	1848,16	10148,22
Russian Federation	30,62	77,31	203,33	452,11	477,61	395,23	348,22	576,72	715,81	748,62	1022,25	633,56	2960,86	8642,25
Canada	-7,3	5,12	32,44	34,77	1032,57	7,03	613,13	1142,29	554,07	795,16	1008,65	903,84	1562,83	7684,6
Germany	25,06	27,50	128,74	76,72	238,66	183,41	179,21	412,35	512,38	799,33	910,81	1438,92	409,63	5342,72
South Africa	8,86	17,81	Feb 00	40,74	454,41	4807,86	41,59	411,17	-14,17	-814,91	-89,19	42,09	233,17	5186,9
Myanmar		4,09	11,54	12,64	92,31	232,53	376,70	875,61	217,82	748,96	475,33	343,13	331,72	3722,38
Cambodia	21,95	29,52	5,15	9,81	64,45	204,64	215,83	466,51	566,02	599,66	499,33	438,27	419,68	3540,82
Pakistan	9,63	1,42	4,34	-62,07	910,63	265,37	76,75	331,35	333,28	88,93	163,57	1014,26	320,74	3458,2

(Source: own creation based on MOFCOM, 2006; 2010; 2015)

Table 1 provides an overview of the 15 largest recipient countries of Chinese FDI. As can be seen, Chinese FDI is present in many different countries from different continents. This wide range of recipients may indicate increasingly diverse motives to invest abroad for Chinese firms. In general, although Chinese FDI has been mostly focused on natural resources, recent investment activity has started to focus on targeting higher value companies within the technological sector, brand value and other strategic assets (Atlantic Council, 2017).

Interestingly, Hong Kong has so far received the largest share of FDI from the mainland, indicating its important role as a bridge for Chinese firms investing abroad (Yeung & Liu, 2008). In Latin America, Cayman Islands and British Virgin Islands secure the majority of Chinese OFDI. Those three on- and offshore financial centres all have a common characteristic, namely a low-tax or tax-free business environment. Because of such status, they have become very attractive locations for mainland Chinese firms to register in and subsequently invest back into China to obtain preferential treatment for inward FDI. Apart from that, these investment locations also function as bridges for investments abroad, as in the case of Hong Kong. This phenomenon known as ‘round tripping’ of investments means that the aforementioned locations usually are not the final destination of investments (Morck et al., 2008).

Given that a large share of accumulated Chinese FDI flows is concentrated in three tax havens, it becomes hard to track the true geographical distribution of Chinese FDI (Quer et al., 2008). Furthermore, round tripping of Chinese OFDI can potentially lead to distortions between reported numbers and reality. Additionally, estimates of round tripping of Chinese OFDI are difficult to obtain (Yeung & Liu, 2008). To further illustrate, China’s accumulated outward FDI stock in the Cayman Islands and British Virgin Islands amounted to 90.3% of the total stock in Latin America in 2015 (MOFCOM, 2015). For these reasons, the issue of round tripping will therefore be taken into consideration by the authors in the process of their research.

2.2. Chinese FDI in Latin America

Before diving into characteristics of Chinese FDI in Latin America, the authors briefly highlight a few key issues of the region as destination of FDI. In fact, Latin America offers many advantages as a host of FDI, such as vast natural resource availability as well as a large and growing middle class that demands modern goods and services, and some countries have indeed proved to be an efficient export platform for global markets. Furthermore, the region has maintained a consistently open regime for FDI for the past two decades (ECLAC, 2013).

Since 1990, FDI inflows have constantly grown to reach a peak in 2011, and have reduced afterwards mainly due to a fall in commodity prices in the context of the global recession. Nonetheless, FDI flows as a share of GDP still stood at 3.6% in 2016, whereas the global average was 2.6%. Investments in extractive industries slowed down since 2010, whereas the share of the manufactures and services sectors increased. New investments announced were concentrated in renewable energies, telecommunications and the automotive industry. In terms of distribution, the majority of investments have continuously originated from the European Union, followed by the United States, Canada and the rising role of China (ECLAC, 2017).

Table 2 shows the regional shares of Chinese outward FDI flows in the period 2003-2015. As can be seen, Latin America currently constitutes the second largest destination after Asia, followed by Europe, North America, Africa and Oceania.

Table 2: Regional shares of Chinese outward FDI flows, 2003-2015. current USD millions.

Region	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total (03 – 15)
Asia	1505.03	3013.99	4484.17	7663.25	16593.15	43547.50	40407.59	44890.46	45494.45	64784.94	75604.26	84988.02	108370.87	541347.69
Africa	74.81	317.43	391.68	519.86	1574.31	5490.55	1438.87	2111.99	3173.14	2516.66	3370.64	3201.93	2977.92	2715.79
Europe	145.03	2046.77	2166.65	597.71	1540.43	875.79	3352.72	6760.19	8251.08	7035.09	5948.53	10837.91	7118.43	56676.33
Latin America	1038.15	1762.72	6466.16	8468.74	4902.41	3677.25	7327.90	10538.27	11935.82	6169.74	14358.95	10547.39	12610.36	99803.86
North America	57.75	126.49	320.84	258.05	1125.71	364.21	1521.93	2621.44	2471.32	4882.00	4901.01	9207.66	10718.48	38576.89
Oceania	33.88	120.15	202.83	126.36	770.08	1951.87	2479.98	1888.96	3318.23	2415.1	3660.32	4336.95	3871.09	25175.80

(Source: Own creation based on MOFCOM, 2006; 2010; 2015)

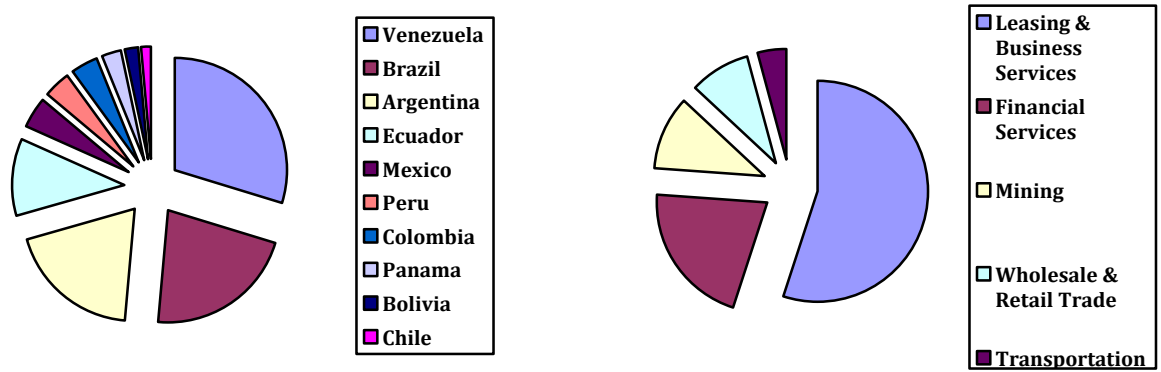
By end of 2015, China had established 30,800 overseas enterprises⁴ in 188 economies, reaching over 80% of the countries and regions in the world. In Latin America, 1,700 overseas enterprises had been established, accounting for 5.7% of the Chinese total. Apart from the aforementioned tax havens, those enterprises were mainly distributed in Brazil, Mexico, Chile, Venezuela, Argentina and Peru. Total OFDI flows reached \$12.61 billion in 2015 with a year-on-year increase of 19.6%, accounting for 8.6% of total global Chinese OFDI flows within that year. The coverage rate⁵ in Latin America was 67.3% in 2015 (MOFCOM, 2015).

⁴ FDI enterprises

⁵ Coverage rate refers to the ratio between the number of countries covered by China's FDI enterprises and the total number of countries in the region

Since the beginning, OFDI in Latin America has focused on natural resources to fuel the booming Chinese economy. Even though commodity prices dropped in 2015 and other foreign corporations began to pull back larger investments in extractive industries, China has kept up its' investments in the sector. Nonetheless, Chinese corporations are slowly shifting their focus towards the service sector, in line with the country's' domestic economy, where services now account for more than 50% of GDP. The government has facilitated this change by releasing a white paper of engagement in Latin America in 2007, and a second paper in late 2016. Although Europe is still the region's largest source of FDI, China is considerably catching up, as its OFDI flows have accounted for an average of 10% of global FDI flows into Latin America in 2014 and 2015 (Atlantic Council, 2017).

Figure 3: Top ten host countries of Chinese FDI flows in Latin America (excluding tax havens), Stock in Latin America, cumulative FDI Stock cumulative net flows by End of 2015, current USD billions.



(Source: Own creation based on MOFCOM 2006; 2010; 2015)

Figures 2 and 3 illustrate the country-specific FDI flow distribution and sectoral FDI stock, respectively. As it can be seen, the top three host countries are Venezuela, Brazil and Argentina. Venezuela secures first place with total net flows of \$2.78 billion, mainly due to a large investment of \$1.54 billion that took place in 2012. Brazil follows with cumulative flows of \$2.01 billion and Argentina reaches third place with net FDI flows that add up onto \$1.79 billion in 2015.

In terms of sectoral distribution, 47.7% of Chinese FDI stock by the end of 2015 lies within the leasing and business services industry. Financial services constitute the second largest share (18.3%), followed by mining (9.6%), wholesale and retail trade (7.6%) and transportation, storage and postal services (3.6%) (MOFCOM, 2015). These figures once more highlight the trend towards investing into the service sector. At the same time, when looking at the ownership characteristics of Chinese investors in Latin America, it can be seen how 81% of involved corporations are SOEs whereas only 19% are privately owned (Atlantic Council, 2017).

2.3. Characteristics of China as an investor

As previously anticipated, this section presents the main characteristics and the fundamental traits of China as a source of foreign direct investment. Namely, the issues highlighted in the next pages refer to the active role played by the government in the economy, the ownership structure of the bulk of Chinese MNCs, the country's institutional environment and the implications brought by the latest global financial crisis.

The government's role in Chinese OFDI

As it has been found, the role of the Chinese government is a distinct feature of Chinese OFDI (Deng, 2007). Chinese corporations typically make investment decisions which are informed by established mind-sets and existing practices, further reinforced by institutional norms (Child & Rodrigues, 2005). The Chinese government has therefore not only shaped outward direct investment behavior through creating the regulatory framework mentioned in 2.1, but also directly through its' role as owner of large SOEs that invest abroad. In fact, it has used overseas investment to achieve e.g. advanced technology transfer or export expansion; at the same time, however, it contributes this way to strengthen relationships with other economies (Deng, 2004).

Furthermore, government intervention is not just limited to domestic markets; it is moreover directed towards international business activities of Chinese firms through the mentioned instruments of control (i.e. ownership and regulations) (Voss, 2011). This type of governmental role can, to a large extent, be explained by the Chinese political and economic systems (Deng, 2007). More precisely, although the regulatory framework may have prevented OFDI from happening in

some cases, it can also contribute to some corporations' ownership advantages. In fact, the experience to deal with this peculiar institutional environment may be capitalized on in host markets with similar institutional settings and market environments. As Morck et al. (2008) state, Chinese companies are experienced in 'navigating complex and difficult business environments', which may provide them with an advantage over firms from developed countries when investing in locations with a weak institutional environment.

Moreover, the 'go global' policy, which was implemented in 2001, has created strong public commitment towards promoting outward direct investments (Deng, 2007). Since its implementation, OFDI restricting measures have been substituted with economic policies in support and promotion of Chinese OFDI. In that context, the government's role has evolved into a more strategic one to support corporations to globalize based on their own needs and policies (Child & Rodrigues, 2005)

Nonetheless, the Chinese government is still the major decision maker at a variety of levels regarding approval of investment projects, which is why it is essential to reference towards its policies to understand Chinese OFDI (Morck et al., 2008). Adding onto the regulatory framework for outward foreign direct investment, the major share of Chinese OFDI is still conducted by SOEs which are under direct control.

State-Owned Enterprises

As briefly mentioned before, Chinese foreign direct investments are predominantly carried out by SOEs. This suggests a motivation that may not lie entirely within economic objectives but also on government policy support to fulfill long term development plans. For this reason, SOEs' investment decisions may reflect political objectives which are – to some degree – inconsistent with profit-maximising strategies of privately owned corporations (Amighini et al., 2011). Such political objectives may e.g. be to ensure sufficient supply of key natural resources, acquire new technology or penetrate new markets (Deng, 2004).

China's Institutional Environment

Kolstad and Wiig (2012) highlight the fact that the Chinese institutional environment is different than institutional environments for the majority of FDI home countries that are regarded as developed. Not only are corruption levels in China higher than in many other countries, but also the Chinese stock market is much less regulated and most of the Chinese corporations that undergo OFDI are listed in that stock market.

China and the global financial crisis

During the crisis, the Chinese economy showed remarkable resilience and was able to recover more quickly. An important factor in this context was the Chinese stimulus program, which was intended to get the country through the global crisis by facilitating exports, investments in infrastructure and favoring SOEs. Although this program was criticized by western experts, China not only remained a favored location for inward FDI, but OFDI continued to expand even during the crisis, as can be seen in Tables 1 and 2. Apart from economic factors, it has also been criticized that the government seized the opportunity to strengthen its control over the Chinese economy. In any case, it can be concluded that the economic crisis strengthened China as a global economic power (De Beule & Van Den Bulcke, 2010).

2.4 Summary

This Chapter presented some important information regarding Chinese global FDI, with a particular focus to Latin America. As it mentioned in 2.2, Chinese FDI has steadily grown over the years, allowing China to gain a top position among global players. Similar growth is also reflected in its FDI in Latin America. Precisely, although still not dominant, China has become to play a significant role in the region, mainly focusing on investments directed to the acquisition of natural resources. Lastly, some unique characteristics of China have been proposed in 2.3. Among them, it is important to highlight the large number of SOEs constituting the bulk of Chinese MNCs, as well as the high involvement of the government within the economy. The next chapter will proceed on describing the research designed adopted by this thesis.

3. Research Design

This Chapter provides an overview of the research design the authors decided to adopt within this thesis. The following paragraphs explain the motives behind the choice of the research design and the related sub-methodological choices (approach, strategy, method etc.). Thus, in order to best tackle the four subordinate research questions outlined at the beginning of this thesis, the following research design has been developed, in accordance with the guidelines provided by Saunders, Lewis and Thornhill (2009).

The chosen research philosophy is positivism, as the point of view of the authors in relation of what constitutes acceptable knowledge (Epistemology) for this thesis implies that only observable phenomena can provide credible facts and data. Therefore, the researchers' view of reality (Ontology) is objective, external and independent of social actors. In accordance with this, the chosen approaches mainly adopted in the thesis are the explanatory and the deductive ones, as the research strategy has been developed in order to test and evaluate existing theoretical frameworks and to seek for new insights, as outlined in the fourth question.

In line with the concepts so far proposed, the authors opted for a structured methodology in the lower levels of the research design, in order to facilitate replication and eventually ensure reliability (Gill and Johnson, 2010). As for the selection of the form of research, the authors decided to integrate both the experiment and archival research. The choice of the former relies on this thesis' aim to address and answer the mentioned research questions by defining theoretical hypotheses on the base of observable evidence provided by the literature, selecting and randomly allocating samples of individuals from a certain population, and introducing different variables throughout the process. Then, by measuring the dependent variable, which in the case of this thesis refers to FDI outflows, as well as controlling all the other variables, conclusions can be finally drawn.

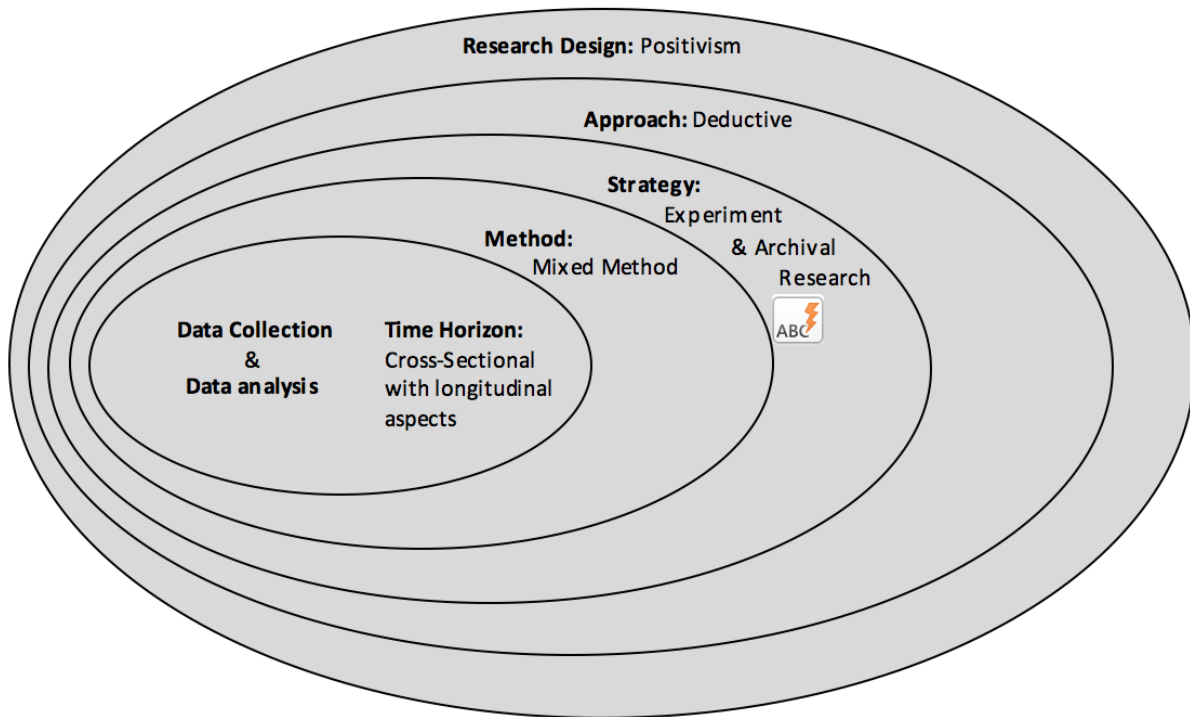
As anticipated, Archival Research, intended as the strategy to make use of documents and records of administrative nature as the principal source of data (Sanders et al., 2009) is adopted. This choice has been made by the authors in order to best tackle all of the research questions afore presented, as they focus upon the past as well as changes overtime. Perhaps the main example of Archival Research proposed by this thesis relates to the source of the dependent variable (Chinese FDI) which is collected from official governmental documents. However, this aspect is further elaborated in the data collection related section 7.1.

The data collection used in the thesis is only secondary (data originally collected and published by others). However, although the authors only collected quantitative data, for the purpose of providing a more complete answer to question 1 and 3, some of these have been evaluated through qualitative procedures, in accordance to the Mixed Model Research (Sanders et al., 2009). More precisely an index has been constructed by the authors to capture the degree of political relations between countries. While data collected are quantitative in nature, the actual construction of such index relies on qualitative evaluations conducted by the authors. However, extensive elaboration of this can found at 7.1. as well as in Appendixes 4 and 5.

As for the time horizon selection, the underlying research presents a cross sectional one, as the object of the particular study phenomena are analyzed at a particular time. However, as a time span of 13 years is taken into consideration in the analysis, it can be argued that some aspects of longitudinal studies are embraced in this thesis. In fact, the chosen statistical method to investigate the behavior of the independent variable across time is the panel data analysis; further elaboration concerning the statistical methodology of this thesis is further elaborated in Chapter 7.

In order to provide a graphical representation as well as a comprehensive overview of this thesis research design so far presented, the authors have hereby adopted the ‘research onion’ proposed by Sanders et al. (2009) to the specificity of this study.

Figure 3 - Research Onion



Source: Own elaboration of the 'research onion' from Saunders et al. 2009

4. Theories of FDI

The following part consists of an extensive review of the main FDI theories among the existing literature. Whereupon the review is divided into three clusters, the authors will follow a timeline approach for the first two clusters, and will focus on presenting the most cited theories in the third⁶. The first cluster focuses on the earliest FDI-determinant literature available, initial models which mainly took into account US and UK based FDI. The second cluster analyses models that were developed at a later point in time which already take into account e.g. more European countries and their respective FDI drivers. This is followed by a review of theories that bear new FDI players such as emerging markets or BRIC countries in mind.

⁶ Such decision is further elaborated on at the beginning of 4.3

For each cluster, the content of the respective academic work will be reviewed and analyzed, and major theories will be highlighted. Moreover, the theoretical pertinence for the author's model development will be commented on.

4.1 Initial models up until 1980

After World War II, FDI acquired an important role in the international economy (Hosseini, 2005).

Theoretical studies on the matter have led to a better understanding of economic mechanisms and the behavior of economic agents, both at micro and macro level, allowing the opening of new areas of study in economic theory. With this taken into account, this part of the thesis highlights the major theories from the early beginning of FDI research until the start of the twenty-first century. The authors review the major theories including corresponding research in the same area and, over that course, draw conclusions on the applicability of those theories to the underlying case.

Prior to World War II, international production comprised a small share of international business. As international trade constituted the largest component of international business, economists from different countries focused their attention especially on the explanation of **trade among nations**. These first attempts were based on the Ricardian (1817) as well as other versions - such as the Heckscher-Ohlin-Model – of the **comparative advantage** doctrine, which assumed perfect international immobility of the factors of production – and, hence, zero FDI – to explain trade among nations.

After failing to explain FDI through the comparative advantage approach, international economists adhered to the neoclassical **arbitrage theory of portfolio flows**, which focuses on capital transfer between nations. However, this approach was also destined to fail since such theory explains the achievements of foreign investments in a portfolio, but not direct investments. According to this theory, as long as there is no risk or barrier in the way of capital movement, such capital will go from countries with low interest rates to countries with high interest rates and generate returns (Hosseini, 2005). In this case, the expectation that no international cross movements of capital will take place has no basis in reality.

One example of these attempts is the work of Mundell (1957). He tried to explain FDI through a model of international trade, involving two countries, two goods, two production factors and two identical production functions in both countries. The production of a good requires a higher proportion of a factor than the other with factor endowments so that they will exclude the possibility

of complete specialization. However, Mundell's model could not explain international production through FDI, because the foreign investments incorporated were either portfolio or short-term investments, both of which differ substantially in at least two ways from FDI (Hosseini, 2005). Subsequently, addressing the underlying assumption of perfect markets with no barriers in terms of trade or competition, Kindleberger (1969) found that in a world characterized by perfect competition, foreign direct investment would no longer exist. Furthermore, by introducing factors such as risk, uncertainty and barriers to the movement of capital, the portfolio theory loses its predictive ability.

Preliminary Internalization Theory (Hymer)

This unsatisfactory situation was assaulted by Hymer (1960) in his dissertation, which was strongly influenced by the work of Bain (1956). This latter author in particular sought to explain the ownership and competitive structure of different US industrial sectors according to whether firms found it easy or difficult to enter or exit these sectors. Hymer argued that the capital-arbitrage hypothesis was inconsistent with several obvious patterns in the behavior of multinational corporations (MNCs). Among those were two features: the fact that MNCs finance their host-country operation in host-country capital markets, and the existence of substantial concentrations of FDI and MNCs in certain countries (Caves, 2007).

Additionally, he was the first scholar to notice some forms of distortion that determine the realization of direct investment. He is considered to have laid the foundation for a microeconomic explanation of the MNC, by showing that they are not randomly distributed among industries and that competitive conditions, in particular product markets, clearly influence foreign direct investment (Teece, 1985 – from Hosseini). According to his theory, which was considered a departure from the neoclassical perspective, local firms will always be better informed about local economic environment; also, for foreign direct investments to take place, two conditions are necessary:

1. FDI must be motivated by attempts to reduce, or remove, international competition among firms
2. A MNC must possess special (internal) advantages which it aims to leverage to increase returns

These special advantages can take the form of superior technology, better products, or firm-level economies of scale (Norman, 2001).

Hymer's theory tries to explain the motivations for investment across national boundaries from the point of view of the investor. It is also the first theory to take a perspective of industrial organization – market imperfections – which then became known as the Hymer – Kindleberger paradigm (Hosseini, 2005). According to Kindleberger (1969), MNCs are logically incompatible with the purely competitive organization of an industry. He suggests that something else must account for the rise of MNCs, resulting in the capital-arbitrage hypothesis being insufficient. Adding onto these findings, Hufbauer (1975) formally showed that foreign investment depends on demand elasticities and production-function parameters instead of just capital cost differences.

Production Cycle

Another theoretical approach rose to prominence within the 1960s. It is the *production cycle* theory by Raymond Vernon, first developed in 1966 and refined in 1979. This theory aimed to explain certain types of FDI made by US companies in Western Europe between 1950 – 1970 in the manufacturing industry. According to Vernon, there are four stages in the production cycle: innovation, growth, maturity, and decline. In the first stage, the U.S. MNCs create new innovative products for local consumption and export the surplus in order to serve foreign markets. After WW II, Europe had increased demand for manufactured products like the ones made in the U.S.

American firms thus began to export, having the advantage of superior technology when compared to international competitors. At some point, due to standardization of products, local companies would imitate the product, and for two reasons U.S. companies were forced to set up production facilities in the local markets. First, to maintain their market shares and second, to keep costs low once the product could be produced in a country with less technology. Although this theory managed to explain some types of investments, there were also areas where Americans did not possess technological advantages while foreign direct investments were made (Denisia, 2010). Furthermore, Vernon paid very little attention to the organizational structure of firms and did not concern himself with why firms should choose to engage in FDI rather than license the right of use of their proprietary assets to foreign firms (Dunning, 2001).

As those early theories were unable to explain the reality of international FDI flows, increasingly as European economies converged towards US levels during the 1970s and 1980s and the capital-arbitrage hypothesis lost its validity, new theories were needed. These focused on three major concepts: internalization, transaction cost and eclectic paradigms (Hosseini, 2005). Such approaches came to shift the attention on the organization rather than international capital flows. Precisely, on the reasons of why companies would want to extend their activities across international borders and why they would aim to control foreign production and service operations (Kokko, 2006). It is noted that the theories stated below are, to some degree, interlinked but nonetheless require individual attention to provide a holistic literature review.

The Internalization Theory

This theory focuses on the exploitation of firm-specific intangible assets and was initially launched by Coase (1937) in a national context and by Hymer (1960, 1979) in an international context. Later, the theory was further developed by Buckley and Casson (1976), Rugman (1982) and Casson (1983). Precisely, the latter authors demonstrated that MNCs organize their internal activities with the purpose of developing specific advantages, which then are to be exploited.

Internalization theory is also considered as very important by Dunning, who uses it in the eclectic paradigm theory, though also argues that this explains only part of FDI flows. Furthermore, Caves (1971, 1974) studied systematic advantages of firms which uniquely arise from common governance of trans-border activities. To explain the concept in more depth, different business activities are linked by flows of intermediate goods, including ordinary semi-processed materials as well as knowledge and information in the form of technological know-how and skills embodied in goods and human capital.

Some of the links can be based on market transactions, though external markets are often inefficient, especially related to transactions in intermediate goods that embody firm-specific intangible assets related to knowledge, technology, organization, management skills, or marketing skills. The major reason for this is that specifying and pricing these assets is particularly difficult (Kokko, 2006).

Furthermore, external markets in knowledge-intensive goods usually do not cover the multiple eventualities that transactions in information can create. When external markets do not exist, or when the costs of operating in them are higher than the benefits, there are incentives for MNCs to

develop their own internal organizational structure to achieve internal coordination activities. This so called "internalization" may stretch across international borders and hence explain the existence of multinational firms and FDI (Kokko, 2006).

Transaction-Cost Approach

The *transaction-cost* approach was used to explain why dispersed plants should fall under common ownership and control rather than simply trade with each other. In particular, transaction-cost variables are concerned with the costs of integrating an operation within the firm as compared with the costs of using an external party to act for the firm in a foreign market (Williamson, 1985). Moreover, transaction-costs are composed of the costs of finding and negotiating with an appropriate partner, and the costs of monitoring the performance of the partner firm (Williamson, 1985; Anderson, & Gatignon, 1986).

According to this approach, horizontal MNCs exists only if the plants they control and operate attain either lower costs or higher revenue productivity than the same plants under separate managements. Why should then this net-revenue advantage arise? Some of the reasons have to do with minimizing costs of production and associated logistical activities of the firm (Caves, 2007). According to Norman, the basic idea is that: "incomplete contracts and missing markets give rise to the possibility of opportunistic behavior in arms-length exchange (Williamson, 1975) and so to the preference by the firm to replace external contracts by direct ownership and internal hierarchies" (2001, p. 3).

Dunning – eclectic paradigm (1977)

The eclectic paradigm was originally developed by John H. Dunning while he was writing his PhD thesis in mid-1950, researching U.S. investments in the British manufacturing industry (Dunning, 2001). It is widely used in practice and incorporates many approaches that were previously stated. Over the course of his research, Dunning identifies a significant difference in labor productivity between U.S. and U.K.-based manufacturers, as well as between U.S.-owned subsidiaries in the U.K. and U.K.-based companies which were, in essence, doing the same job. Through further investigation of this matter, as well as additional research on the topic taking into account different countries and industries, he developed the concept which is known today as the OLI-framework. It is used to assess the potential gains from and ways of FDI from a company view, based on three aspects: [O]wnership-specific advantages, [L]ocation-specific advantages and [I]nternalization-specific advantages.

Dunning defines the *O-advantages* as “*competitive advantages which firms of one nationality possess over those of another nationality in supplying any particular market or set of markets*” (Dunning, 2001, p. 176), hence implicitly referring to them as advantages relative to existent or possible future competitors. This definition aligns well with the findings of Bhattacharya and Michael (2008). In particular, they encourage multinational corporations which are planning to internationalize in order to not only look at their proven strategies, but to also look at the strategies of local champions in order to understand and emulate those strategies. They argue that this is an essential approach to compete in the target-country’s economy. According to Dunning (2001), those advantages can exist for a company due to privileged ownership of assets or from their ability to coordinate these assets with other assets across national boundaries in a way that benefits them.

The *L-advantages* are defined as “*the extent to which firms choose to locate these value-adding activities outside of their national boundaries*” (Dunning, 2001, p. 176). Examples of those advantages are certain raw materials or institutional regulations and policies in favor of the own business model, or FDI in general, just to name a few. L-advantages can be found only in the specific target-region and are part of the motivation for internationalization of a company.

Dunning refers to the *I-advantages* as “*the extent to which firms perceive it to be in their best interests to internalize the markets for the generation and/or the use of (...) assets; and by so doing add value to them*” (Dunning, 2001, p. 176). A company has to analyze which of its assets should be internalized or externalized when going abroad.

Three criteria play a vital role in this decision-making process. The first criterion is comparing the coordination and transaction cost of an activity. When expanding to foreign markets, the requirements for coordination of the company’s functions or assets across more than one market rise and coordination costs increase. A company should, in theory, internalize an asset if the coordination cost is lower than the transaction cost and vice versa. But there are two more criteria to keep in mind.

The second criterion is the importance of keeping the [O]. Although it might be more cost efficient to externalize a call-center, the firm has to reflect on whether that particular asset might be part of the ownership-specific advantages. If the internal call-center is more efficient than that of the competitors’ and highly valued by the customers, the company should keep that function internally instead of just outsourcing it for cost reasons. The third criterion is the regulatory structure of the target region. A government’s legislation might make internalization of a certain function or e.g. registration of intellectual property a very costly matter and it may be more effective to externalize that function. The OLI has to be considered as a holistic framework instead of independent components which are barely related to each other (Dunning, 2001).

Dunning’s eclectic paradigm suggests four motives for FDI: market-seeking FDI, resource-seeking, efficiency seeking FDI and strategic-asset seeking FDI (Dunning, & Lundan, 2008). Market-seeking FDI relates to investments made looking for access to bigger markets, either because the home market is already saturated or because exporting to another market has become too expensive due to tariffs and other cost-increasing factors. It can be seen as a horizontal expansion which can concern production, marketing or sales (Dicken, 2007). Furthermore, it can be divided into defensive and offensive market-seeking FDI (Buckley et al., 2007). Defensive market-seeking FDI encompasses investments in order to evade trade barriers, escape from tight competition or substitute imports.

Offensive market-seeking FDI applies if a MNC seizes an opportunity abroad to develop new markets and therefore secure sustained company growth. It includes investments aimed to serve trade supporting functions, facilitate exports or enhance exports from the host country into other markets.

Resource-seeking FDI relates to the objective of gaining access to resources - e.g. raw materials - that are not or not as efficiently available in the home market. Most of these resources are then exported to industrialized countries for further processing.

Efficiency-seeking FDI relates to the previously mentioned transaction-cost approach. The investor takes advantage of different factor endowments in order to reorganize the company's activities. MNCs take part in this type of FDI when some functions can be performed more efficiently, i.e. cheaper, in the host country than at home. This can be influenced by e.g. government incentives, wage levels or being close to your customer in terms of marketing or production activities.

Finally, strategic-asset seeking FDI relates to acquiring intangible and tangible firm-specific assets through the investment. Amongst others, these assets can refer to managerial capabilities, proprietary advanced technology, technological know-how, marketing skills and practices, brands, patents, and R&D as well as innovation power. Through e.g. locating a subsidiary close to clusters in foreign markets, an investor could gain access to a knowledgeable workforce whereas collaborative partnerships could lead to knowledge and technology transfer. Acquiring a company could alternatively give access to its assets and resources at once (Rui, & Yip, 2008).

Theories from the Uppsala School

During the late 70s, a few Scandinavian scholars developed a concept which focused on the *process of internationalization* rather than internationalization itself. The model developed at Uppsala University provides an entry-by-step process of international expansion for firms called "The establishment chain" (Johanson & Vahlne, 1977). Internationalization is in fact intended as a gradual process which starts with simple export-related activities and, as sales grow, increasing local commitment is enhanced by the firm; cross-border partnerships, alliances and FDI represent the last stages of the process.

Another concept that has been emphasized at Uppsala is that of distance for companies when internationalizing. Firms would in fact expand in close and similar markets at first, rather than

distant ones. In the model, such distance was referred to as: “...*factors preventing or disturbing the flow of information between potential and actual suppliers and customers*” (Vahlne & Wiedersheim- Paul, 1975).

Several studies on the importance of distance in international business have been conducted, each analyzing different aspects of it. Indeed, it is here necessary to mention the so-called “psychic distance” concept developed early in the literature (Beckerman, 1956). Psychic distance is intended as a subjectively perceived distance between two countries that helps to explain things like the choice of export markets and foreign entry modes (Hakanson & Ambos, 2010). Also, it is meant as in the perception of managers: the psychic distance to a specific country is a reflection of the manager’s knowledge, familiarity and sense of understanding of it; therefore, such distance is not symmetrical.

4.1.1 Relevance of initial models for the underlying research

This section aims to provide a critical assessment of the theories so far presented, in order to determine, based on their relevance for the underlying research, the theoretical support to the statistical analysis further conducted within this thesis. With this taken into account, it needs to be highlighted how the comparative advantage doctrine and early portfolio flow theories have been proven wrong due to assumptions, such as international immobility of factors of production or zero barriers or risk for international capital movement, which do not hold in reality. The authors therefore choose not to include these theories in their model development.

Also, China is expected to have superior technology levels compared to most of the LA countries (or at least not inferior); therefore, favorable product markets or either appealing cost structures may be valid reasons for Chinese investors to invest into e.g. Brazil. Thus, because decades of research have extensively validated the essence of Hymer’s and Vernon’s theories, these potential determinants will be taken into account throughout the model development.

Internalization theory and the transaction cost approach are more concerned with the issue of whether FDI will arise in the first place or not, while the authors take a macroeconomic approach to their analysis. In this context, it should be noted that they do not have access to ownership structures of different single investments. Nevertheless, both theories are viewed as part of the OLI framework which the authors will use for their research as reasoned below.

The liability of foreignness is an issue that most likely plays a role for Chinese investors as geographic location, culture and systems differ greatly from Latin American countries. At the same time, Dunning combines some of the said issues and the authors consider the motivations that result from his framework as relevant points that should be included. The Uppsala School discusses the relevance of physical, cultural, or psychic distance. As home and host country lie on different continents, the concept of distance or closeness should be considered for research.

4.2 Models from 1980 - 2000

This section continues the time-line approach, building upon the previously stated models. Any scholars have investigated FDI determinants and MNC behavior in the attempt to gain a better understanding of how, where, and why firms decide to invest directly abroad. As Dunning (2001) describes, those emerging concepts should be seen as complementary instead of substitutional to each other. Because there are many different ways to categorize the literature, in order not to fall into confusion without leaving out important parts of the literature, the authors will follow the categorization proposed by Blonigen (2005). Precisely, Blonigen provides an extensive review of FDI-related literature during the 80s and 90s that is heavily acknowledged in the area of FDI research. Therefore, the authors divide the literature into three broad areas, namely firm characteristics, partial equilibrium analysis of external determinants, and general equilibrium analysis.

Firm Characteristics

This field of research builds upon the findings of Hymer and Buckley, Williamson's work on transaction costs and Dunning's conceptualization of OLI. For this reason, it will only be described briefly. Reviewing the literature has shown that testing the hypothesis of presence of intangible

firm-specific assets is rather difficult, as these assets or factors are mostly unobservable. Scholars have adapted both R&D and advertising intensity as proxies for measuring those intangible assets, though final analysis cannot suggest that the internationalization hypothesis is confirmed. In contrast, some literature shows that firms lacking R&D intensity relative to their industry competitors are the ones more likely to engage in FDI. Kogut and Chang (1991) and Blonigen (1997) have found evidence that Japanese firms' acquisition FDI in the US was carried out to access firm-specific assets instead of internalizing existing firm-specific assets.

Partial Equilibrium Analysis of External Determinants

Due to improvements of data availability and changing characteristics of investors, empirical research started to focus on both the exogenous and policy factors that affect the extent of FDI that we observe, rather than whether FDI would occur or not in the first place. A large body of literature on FDI determinants emerged that examined how exogenous macroeconomic factors affect the firm's FDI decision, focusing on issues such as exchange rate movements, taxes, or tariffs, further presented in the next paragraphs.

Exchange Rate Effects

The effect of exchange rates on FDI has been examined both with respect to changes in the bilateral level of the exchange rate between countries and in the volatility of exchange rates. Before the work of Froot and Stein (1991), the common view was that expected changes in exchange rates would have meant no effect on a firm's decision to invest in a foreign country. Froot and Stein present an imperfect capital markets reasoning – imperfect capital markets in the sense that internal cost of capital is lower than borrowing from external sources. As a result of that, an appreciation of the currency will lead to increased firm's wealth whilst providing it with additional low-cost capital to invest. Froot and Stein provide empirical evidence of increased inward FDI with currency depreciation. Furthermore, Klein and Rosengren (1994) confirm in their research how exchange rate depreciation leads to an increase of U.S. outward FDI activity.

At the same time, Blonigen (1997) provides another approach. He in fact states that when FDI is motivated by the acquisition of assets that can be transferred within a firm across markets without a currency transaction (e.g. intangible assets), an exchange rate appreciation of the foreign currency will lower the price of the asset in that currency, though it will not necessarily lower the nominal returns. Therefore, a depreciation of a country's currency may allow for "fire sales" of such transferable assets to foreign firms operating in global markets, instead of domestic firms that may not have such access.

Blonigen finds strong support of his hypothesis and notes that these exchange rate effects on acquisition FDI are primarily intended for high-technology industries, where firm-specific assets are of substantial importance. Moreover, other studies have found that short-run movements in exchange rates lead to increased inward FDI (Grubert, & Mutti, 1991; Swensojn, 1994; Kogut, & Chang, 1996), a result which is consistent with the two aforementioned findings. Furthermore, Campa (1993) and Cushman (1985) have studied effects of exchange rate uncertainty on FDI and found that greater exchange rate uncertainty reduces FDI.

Taxes

The general consensus on research on the role that taxes play relates to the fact that higher taxes discourage FDI. As Blonigen states, the effects of taxes can vary substantially depending on the type of taxes, measurement of FDI activity, and tax treatment in both the host and the parent countries. Most of the literature directs towards Hartman's papers (1984; 1985), as these were the first to point out a way in which certain types of FDI may surprisingly not be very sensitive to taxes.

Precisely, he states that the earnings of a subsidiary in a foreign country will ultimately be subject to parent and host taxes, regardless of whether it is either repatriated or reinvested in the foreign subsidiary to generate further earnings. Although there is no way to avoid foreign taxes on these earnings, new investments consider capital transfers from parent to affiliate that have not yet incurred any foreign taxes. This means that firms would be incentivized to finance their FDI through retained earnings and that such FDI would only respond to host country tax rates. However, it needs to be mentioned how Slemrod's (1990) research presents a contrasting view, with different findings of non-significance of the tax response in relation to retained earnings on FDI.

Overall, literature has pointed out that there is more than meets the eye initially, when considering the effects of taxes on FDI. It has been shown that indirect business taxes have a similar effect on FDI as corporate income taxes do; however, the hypothesis that bilateral international tax treaties have a significant effect on FDI activity has found little evidence (Hallward-Driemeier, 2003; Blonigen, & Davies, 2004). To this regard, empirical approaches and data samples have differed a fair amount and, according to Blonigen (2005), there are other weaknesses within the literature that clearly need to be addressed.

Institutions

Following Blonigen's argumentation, the quality of institutions is likely to be a major determinant of FDI activity, particularly for less developed countries, for a few reasons. Poor institutions, which are required for a well-functioning market, tend to increase the cost of doing business and therefore could reduce FDI activity. Furthermore, poor institutions may result in poor infrastructure (i.e. public goods) which reduces expected profitability and hence, by consequence, FDI into a given market. The aforementioned hypotheses are not controversial among scholars, although measuring institutions accurately is a difficult task. A common way to measure this is to create a composite index of a country's political, legal, and economic institutions. As Wei (2000) shows, a variety of corruption indices are strongly and negatively correlated with FDI, though other studies show no similar evidence (Wheeler, & Mody, 1992).

Trade Protection

Higher trade protection is supposed to make firms more likely to substitute affiliates' production for exports, in order to avoid the costs of trade protection. This activity is commonly termed tariff-jumping FDI. The link between FDI and trade protection is based on a general consensus amongst scholars. The major issue in the research however revolves around the fact that it is rather difficult to quantify non-tariff forms of protection in a consistent fashion across industries. Nonetheless, while Belderbos (1997) and Blonigen (2002) both find robust evidence of tariff-jumping FDI, Blonigen's results strongly suggest that such response is only seen from MNCs based in developed

countries, as FDI requires substantial cost that small exporting firms may not be able to finance or find profitable.

Trade Effects

Trade effects (i.e. FDI as a substitute for exports to a host country) is one of the most commonly cited motivations behind foreign investment. As Buckley and Casson (1981) state in their study, exports involve both lower fixed costs and higher variable costs due to transportation and trade barriers. Supplying through affiliate sales allows a firm to substantially lower these variable costs; however, this likely involves at the same time higher fixed costs than exports which leads to FDI being more profitable at a certain scale.

As Blonigen (2001), Head and Ries (2001) and Swenson (2004) show, it is important to distinguish between finished products that would substitute affiliate production or intermediate inputs that would be used by a MNCs affiliate to produce a finished product. With this regard, the research shows a negative correlation between trade and FDI for the former, and a positive correlation between the two for the latter. Furthermore, according to the revised Uppsala model, relationships and networks (which could be created through export-import relationships) are key determinants of resource and market commitment (Johanson, & Vahlne, 2009).

General Equilibrium Analysis

General Equilibrium models capture primary long-run determinants of FDI decisions and locations. However, the difficulty of building such a model, which is tied back to microeconomic decision making, has led many authors to the focus on the aforementioned *partial* equilibrium frameworks. With this regard, the major concern that arises from these partial equilibrium models is that they may ignore important long-run GE factors that affect FDI decisions and locations which may lead to omitted variable bias⁷. This can be overcome through examining time series data, assuming that omitted variables reflecting long-run determinants are constant over the time period of the sample.

⁷ One of the key assumptions needed to get an unbiased estimate in regression analysis is that the mean of the error terms is zero. If this assumption does not hold then one cannot expect the estimate to be close to the true value desired. This problem is called omitted variable bias (Crane-Droesch, 2014).

Also, it needs to be mentioned how GE models were initially used to model trade flows, which is less complicated to model than MNC and FDI behavior. The dominating model during the 1980s was the Heckscher-Ohlin general equilibrium theory. In particular, such model assumes that trade flow predictions were exclusively based on differences in relative production factor endowments between countries. However, attempts to provide empirical support to this argument often proved to be unsuccessful (Blonigen, 2005).

The first empirical literature that was able to successfully fit and predict trade flows between countries is called *gravity model of trade*, which specifies trade flows between countries as a function of each country's GDP and the (geographical, cultural, and economic) distance between the two countries. Early research of Markusen (1984) and Helpman (1984) in MNC GE theory has suggested two distinct motivations for FDI. Those are to access markets in the case of trade frictions (horizontal FDI) or to access low wages for part of the production process (vertical FDI).

Brainard (1993) was one of the first scholars who attempted to match predictions of a GE model of MNC behavior to the data. With sufficient assumptions behind the model & enough parameter values, Brainard finds evidence that trade frictions and plant level fixed effects have their expected impacts on the ratio of exports to total foreign sales. Her work is considered a crucial first step, although it holds a few weaknesses such as assuming symmetric identicalness of countries, which prevents analysis of how differences in country size or factor endowments matter.

A more sophisticated approach was then developed by Markusen in the 1990s. The two-country, two-factor, two-sector models are based on more complex assumptions. An important result of these models is that factor endowments may have a significant impact for FDI patterns. There have also been studies that have successfully tested for the so called 'knowledge-capital model' of FDI (Carr et al., 2001), in which technology related factors tend to explain US outward FDI.

Nonetheless, there are a few issues with the aforementioned important, but initial, attempts to estimate GE determinants of FDI patterns. Blonigen et al. (2003) in fact point out a significant error in variable specification in Carr et al. (2001). Further – general – issues concern data quality and characteristics of the data. Finally, modeling two-country frameworks may include invalid assumptions such as that FDI decisions by MNCs in a parent country into a particular host country are independent of their FDI decisions to any other host country.

4.2.1 Relevance of models during 1980 - 2000 for the underlying research

As for 4.3.1, this subsection now presents the decision process to whether keep or discard the presented theories, in order to critically build the theoretical base of the further regression analysis.

Firm characteristics could certainly play an important role for Chinese firms in Latin America; however, the macroeconomic scope of this research does not provide with an in-depth firm-level analysis. Therefore, the concept will not be considered as relevant by the authors. At the same time, although with mixed results, because scholars appear to be sufficiently clear about the importance of exchange rate effects, taxes and trade protection as determinants of FDI, these potential influencers will be taken into consideration this paper.

Moreover, because Latin America is comprised of developing countries or emerging markets, institutional quality is considered to be very important in this context by the authors, which agree on including this variable into their research. Also, well established trade effects may enhance the establishment of solid business relationships which could affect investment decisions. The gravity model suggests considering host-country market size as well as factors of production and distance. On the one hand, many of the Latin American economies possess large amounts of different natural resources; on the other hand, Chinese FDI decisions may be influenced by factors related to distance (e.g. cultural, political) related to the respective host-country. For these reasons, both theories will be used by the authors to later build the regression models.

4.3 FDI Theories on FDI from developing economies

This section of the literature review shifts the attention towards the drivers of foreign direct investment that originates from developing economies. For the purpose of the underlying research, the authors present theories within the next paragraphs with the intention to provide a complete justification for the analysis later presented in this thesis. A major criticism to applying classic FDI theories on outward foreign direct investment coming from developing countries is that those classic theories are derived from the view of developed investors. Therefore, they most often fail to capture the unique characteristics of MNCs from less developed countries (UNCTAD, 2006; Moon and Roehl, 2001).

Consequently, a number of new theories have recently been developed. These new theories highlight the importance of the institutional environment, networks, learning and knowledge as factors that affect the decision and the location choice of foreign direct investment from emerging economies. Among the main theories this thesis adopts in order to conduct the analysis within the underlying research, the latecomer theory (Mathews, 2002) plays a crucial role. Being one of the prevalent approaches in the literature, several theories have subsequently been developed based on the latecomer theory; among them, The Springboard view, developed by Luo & Tung (2007) and the government steward logic (Deng, 2004) are presented.

In the following pages, the authors chose to abandon, at least partially, the timeline approach so far adopted in the review of classical FDI theories. This decision has been made after taking into account the short timeframe to be considered, as well as the relative low number of “new theories” which the authors believe to be of interest for the underlying research. Therefore, the timeline approach is used only to present the first two theories - The Latecomer Theory and the Springboard view - as the latter is largely based on the former. Lastly, the Institutional Theory presented afterwards, though recalling main concepts which have been presented in the previous section of this Chapter, assumes a new emerging market perspective with the government steward logic.

Before proceeding to present the mentioned theories, a final remark has to be made. Because of its importance for the underlying research, this thesis devotes lots of attention to the Latecomer Theory. With this in mind, and in order to best illustrate the foundations of said theory, extensive literature on the importance of linkages will be presented within its dedicated section.

The Latecomer Theory & the LLL Framework

The Latecomer theory was initially formulated by Mathews in 2002. In his study regarding the resource-based strategies that firms from developing economies put in place in order to “catch up” to early industrialized countries. Particularly, the term latecomer applies to those firms which are late to enter a foreign market, due to economic development restrains as well as political limitations they face in the home country.

The main common characteristics that such firms from developing countries hold according to such studies is the necessity to compete in international markets against developed economies, in terms of factors such as know-how, technology and institutional environment.

The notions of such theory have been applied by further studies on FDI from developing countries. Buckley, Wang & Clegg (2007) stress the fact that latecomer firms tend to be poor of resources and need to develop their competitive advantage from their home country business environment. In many occasions this refers to cost effectiveness, knowledge-based business models and high flexibility; all factors which contribute to the establishment of latecomers in international markets populated by developed firms (Mathews, 2002). A further development in the latecomer theory has been provided by a later study conducted by Mathews (2006), by introducing the LLL model.

In his study, it is pointed out how latecomer firms tend to rationally and systematically develop strategies to move out of the latecomer status as fast as possible. In fact, Mathews (2006) argues that such types of entrants should focus on the advantages which can be acquired externally, rather than on their own. Therefore, by adopting a global outlook, latecomers should link themselves - here is the first [L] of the model - to networks, in order to access new resources and advantages. The second [L] of the model - Leverage - focuses on the resources themselves and the ways these can be leveraged through the networks. Important characteristics that will make the resources more accessible refer to imitability, transferability and substitutability (Mathews, 2006).

The last [L], learning, can be divided into organizational learning and economic learning. The former refers to the efficiency gains in the application of linkage and leverage, which the firm acquires thanks to the constant use of such processes. The latter refers to efficiency gains in economic terms, which derive from the repeated use of networks such as Joint Ventures and alliances. The model has laid theoretical groundwork for developing countries firms' accelerated internationalization, and has been of great interests for the studies of the Asian and Pacific economies (Mathews, 2006). Because of the importance that the Linkage element holds for this thesis, additional theoretical insights are to be presented.

Linkages refer to political, social or economic ties of a home country with other countries (Dunning, 2006) and provide firms with strategic advantages (Murtha & Lenway, 1994). Chen, Chen & Ku (2004) highlight two interesting aspects that linkages hold as drivers of FDI. Not only are they necessary for latecomer firms to build platforms for foreign-based activities: they also determine the positive effects that the host country receives from FDI. In fact, the more linkages a foreign firm is able to establish with local affiliates, the greater the benefits that are generated in the host economy (UNCTAD, 2001).

Following the Network approach for which FDI results from the creation of a linkage - either political, social or economic - between foreign and domestic networks (Johanson & Mattsson, 1987), Mathews (2006) argues that latecomers tend to form such networks with host country players, drawing themselves into circuits of exchange and sources of advantage. Also, as Dicken (2007) points out, linkages to companies with complementary assets may only be accessible through internationalization, especially in knowledge-intensive high-technology industries, often because - as highlighted at the beginning of this section - latecomers might lack the necessary know-how in their home countries.

Differently from traditional FDI theory and especially in relation to the concept of ownership-specific advantages, latecomer firms target the most transferrable, least rare and most easily duplicatable resources belonging to incumbent firms. In other words, latecomers tend to build their competitive advantage by leveraging such resources and exploiting their flexible business models, faster innovation and low-cost base (Luo & Rui, 2009; Mathews, 2002). Also, as Luo & Tung (2007) state, the liability of foreignness is offset by the advantages obtained through the acquisition of strategic assets.

The Springboard view

The Springboard theory, or springboard view, contributes to the literature of the international expansion of firms from emerging markets. It builds upon the aforementioned Latecomer theory, while elaborating some further key points. In fact, Luo & Tung (2007), the authors who developed this theoretical perspective, agree on what Mathews theorized regarding the latecomer disadvantage when competing against firms from developed economies. Moreover, they once more stress the fact that firms from emerging markets differ from traditional firms from developed economies since the

latter undertake international expansion triggered by unfavorable characteristics of their home country business environment.

At the same time, the springboard theory stresses that the acquisition of strategic resources occurs recursively and has a long-term perspective. Indeed, acquiring such assets does not only build a competitive advantage, but also contributes to generate future growth. The authors furthermore argue that long-term success depends on the ability to simultaneously exploit core competences at home and explore new opportunities abroad.

Institutional theory and the government steward logic

With the rise of FDI from emerging countries, the literature has been focusing on the important role that institutions play within internationalization strategies from emerging market MNCs. Studies from the early 90s in fact highlight how the environmental context in which such firms make decisions of international expansion is largely influenced by both formal and informal institutions (North, 1990). While the former type is usually associated with governmental institutions, the latter has often been referred to as a set of social norms and beliefs. With this taken into account, Institutional theory views firms as surrounded and immersed in economic and social relations within society (Scott, 2005).

The quality of the institutional environment in the host country can influence the location of FDI. As mentioned in the context of partial equilibrium analysis, institutional theory states that companies prefer arm-length transactions to substantial sunk costs in the form of FDI in countries that are characterized by high political risk (Buckley & Casson, 1981; 1999). High political risk is therefore typically negatively associated with FDI inflows, and these findings have been supported by a large part of the literature (e.g. Chakrabarti, 2001; Alfaro, Kalemli-Ozcan & Volosovych, 2008; Globerman & Shapiro, 2002).

Deng (2004), with his government steward logic, claims that the activities of companies in developing countries are subject of great influence from the local governmental institutions. Such influence is exercised two ways; directly through administrative control, and indirectly through networks between governmental authorities and the firm's' management, as well as strong economic

policies (Milelli & Hay, 2008). This implies that in such case, firms tend to make decisions in line with the home country's political agenda, developing their strategy accordingly.

4.3.1. Relevance of the Theories from Emerging Markets

The latecomer theory implies that FDI in Latin America is attractive for Chinese enterprises lacking different types of resources, who aim to acquire different kinds of strategic assets. Additionally, the theory implies that their ability to link with established networks within Latin America and leverage from them would allow Chinese investors to improve their competitive position in both the foreign and domestic market. With these considerations taken into account, the authors agree on considering the Latecomer Theory as relevant for the research conducted.

At the same time, in contrast to the latecomer approach, the springboard view sees the long-term absorption of innovative capabilities as the ultimate goal of such FDI activities. To this end, because the innovation degree of such capabilities in Latin America is rather lower than more developed economies, the authors disagree that the aforesaid absorption may represent the long-term goal of Chinese investors, at least not the main one. For these reasons, the springboard view is not considered particularly interesting by the authors for further investigation in the underlying research.

Lastly, the Institutional theories and the government steward view imply that the Chinese government and other factors within the institutional environment are likely to represent an important factor in the FDI decisions of Chinese companies. To this end, considering the historical and current situation regarding the involvement of the Chinese government within the economy presented in 2.3, and in line with the vast majority of literature on Chinese FDI, the authors decided to consider such theoretical concepts as important for this thesis.

4.4. Summary and Overview

This section aims at providing a summary and an overview of the theoretical foundation of the underlying research. More precisely, considering the extensive literature review and the critical argumentations presented at the end of each section of Chapter 4 (i.e. 4.1.1, 4.2.1, 4.3.1) with concerns on the main FDI theories, a consequent conscious selection has been made by the authors. As previously mentioned, a regression analysis is used in this thesis in order to be able to evaluate

the theories so far presented with respect to Chinese FDI in Latin America. Thus, the following Table (3) provides an overview regarding which theories or which aspects of the theories have been chosen for the underlying research.

Table 3 – Selection of relevant theories

Theory	Nested within Regression foundation
Comparative advantage	No
Production Cycle	No
OLI ⁸	Yes
Uppsala Model	Yes
Firm Characteristics	No
Partial Equilibrium Analysis	
Exchange Rate Effects	No
Taxes	Yes
Institutional Theory	Yes
Trade Protection	Yes
Trade Effects	Yes
Gravity Model	Yes
Latecomer Theory	Yes
Springboard View	No

⁸ Includes internalization theory and transaction-cost theory

5. Literature Review

The remarkable increase in outward FDI activities by firms from emerging markets has been subject of study for large part of the latest literature. Within this thesis, the emphasis of is to identify particular China specific determinants for the location choice of foreign investments. Thus, this Chapter will present the following topics: Research on the determinants of global outward FDI coming from developing countries MNCs will be summarized in the first section of this Chapter, while the second section presents literature on China's global outward FDI. Then, the attention will be brought on studies that have tried to evaluate the relevance of the various FDI theories for the specific case of China. Lastly, conclusions will be drawn.

5.1 Evidence from developing economies

Some of the first studies that started to shift the attention of the literature towards FDI coming from developing countries can be dated back to the late 70s and early 80s. Perhaps one of the earliest studies on such matter is provided by Lecraw (1977), who studied foreign direct investments from developing countries. Among his findings, such firms appeared to use labor-intensive technology for the production of low margin undifferentiated goods in the host country. While some of these factors have been discussed and considered as less relevant in later stages of FDI from developing economies, others have been continuously taken into consideration in further studies (Caves, 2007).

An aspect that has attracted lots of attention from the literature since the early studies, is the entrepreneurial element that characterizes the internationalization of least developed countries firms. In fact, most of the MNCs investments from developing countries overseas concern their entrepreneurial capabilities. Particularly, such capabilities are usually reflected in the skills to complementary well adapt and respond to developing economic conditions (Euh & Min, 1986). With this regard, Caves (2007) and Wells (1993) argue years later that this kind of foreign direct investment would not possibly be successful without a particular entrepreneurial advantage.

At the same time, a study conducted on Korean MNCs (Kumar and Kim, 1984) concluded that the key success factors in foreign markets was related to their ability to use cheap skilled labor to operate projects abroad at low cost. The foreign investment location choice for MNCs from developing countries appear to be largely affected by the important role that host country real wages

have (Banga, 2008), combined with the entrepreneurial capabilities aforementioned. Following the discussion, such intrapreneurial capabilities are often referred to the ability to adapt the technological know-how acquired in the home country (Wells, 1983; Kumar, 1982). It is indeed a key characteristic of such MNCs internationalization process to exploit their small-scale technology and make use of local resources in host countries to manufacture products that are appropriate for host countries.

Another aspect on which the literature has been focusing is the role of institutions. There is by now a large literature which, if anything, suggests that FDI from developing economies is attracted to countries with good institutions (Globerman & Shapiro, 2002; Banga, 2008). Such host country institutions often result to be sources of competitive advantages, in relation to home country competitors (Belloc, 2006; Levchenko, 2007).

Overall, developing countries MNCs tend to share some common characteristics, such as the easy access to natural resources (BCG, 2009) and the comparative advantages deriving from the low prices they are able to determine (Pangarkar & Lim, 2003). Moreover, it appears that such MNCs tend to gain access to resources through their international expansion (Peng & Wang, 2000; Mathews 2006). Lastly, they tend to direct overseas investments mostly in host countries with good institutions, with a positive look for similarities with the ones in their home country (Globerman & Shapiro, 2002; Habib & Zurawicki, 2002).

5.2. Literature on Chinese Global FDI

This section aims at addressing the following question: What are the characteristics that make China a particular case for the literature? The authors indeed aim to propose evidence of China-specific determinants which can further implement or, in some cases, even replace some of the classical determinants previously presented. The reasoning behind assumes that determinants for Chinese outward foreign direct investment may be different from those of any other country (Yeung and Liu, 2008; Buckley et al., 2007). The studies and the argumentations proposed in the next paragraphs have been chosen by the authors based on the importance and the influence they hold for later studies.

The literature focusing on foreign direct investment from China has been increasing over the last decades. However, frequently mixed results regarding the motives and key determinants leading to contradictory conclusions have been common cases among the many studies. With this regard, a major issue needs to be pinpointed which plays an important role in such an unclear scenario. In fact, as previously mentioned, some of the most well-known research and analysis has been based on the official, yet unreliable data published by the Chinese Ministry of Commerce (MOFCOM).

Among the most famous and widely cited studies on Chinese FDI determinants, Buckley et al. (2007) includes resource-seeking motives for investments in their findings. In their study, they used panel data on Chinese FDI to 49 countries, between 1984 to 2001. Among their findings, there is evidence of factors such as political risk, cultural proximity as well as high inflation and good trade relations with China. A very interesting conclusion is related to the evidence of Chinese firms being attracted to countries with high political risk and abundant natural resources.

Theory recalls how during the early periods of Chinese OFDI expansion, it was found that natural resource-rich countries were among the main receivers of the Asian MNCs investments. With this regard, Cheung and Qian (2009) find only limited evidence for this factor to be attractive for China. Additionally, in their analysis conducted through a fixed effect regression considering 31 receiving countries from 1991 to 2005, they find political risk and institutions not to be significant.

A study conducted by Cheng and Ma (2010) finds evidence of the host country market size (captured by GDP) to be positive associated to Chinese FDI outflows. In their study, they adopt a gravity model to analyze both FDI stocks and flows from China between 2003 to 2005, using data from the China Ministry of Commerce (MOFCOM). Apart from GDP, among their findings they highlight how distance between China and the host country has a negative impact on FDI. However, it needs to be mentioned how natural resources and institutions were both not taken into consideration as determinants in their analysis.

With regard to the mentioned high political risk, Quer et al. (2012) decided to include it in their study on 52 host countries, between 2002 and 2009. By focusing the attention on the location choice of Chinese MNCs, they find no evidence of relation between their investments and the host country political risk. At the same time, they also find cultural distance not to have a strong influence either. However, among the determinants who did play a role, they identified the volume of Chinese exports to the host country as having a positive effect on Chinese FDI.

The study conducted by Kolstad and Wiig in 2012 provides additional insight to the literature on Chinese FDI. The study was conducted through a OLS estimation of the average of FDI from China to 104 host countries between 2003 to 2006. Among their findings there is the evidence of factors such as institutions, market size and natural institutions. More precisely, they confirm the findings from Buckley et al. (2007) regarding the attraction of Chinese investors towards countries with large domestic markets, abundant natural resources and poor institutions.

In addition, they provide evidence of FDI from China directed towards a combination of the latter two factors, indicating that the more resource abundant and the poorer the institutions, the more attractive the host country is for Chinese firms. With this regard, in a similar study the following year, they argue that one main reason for this evidence relates to the fact that such poor governed countries are the only remained ones of latecomers (Kolstad and Wiig, 2011).

In 2011, Cheung et al. investigate the determinants of Chinese foreign investment activity in a developing environment. Their findings within African countries, indicate that high political risk in the host country, as well as high levels of corruption tend to attract Chinese investments. Also, they find that natural resources are indeed important for investors from China. However, it needs to be mentioned that this latter finding is only relevant to data for the period after 2003, a year after the launch of the Governmental strategy “Go Global” in 2001. This indicates the importance that the political environment in China has in affecting investments decisions of Chinese firms.

What just presented is in strict connection with a main peculiarity of most of Chinese MNCs. In fact, the bulk of such MNCs are state-owned enterprises (SOEs) and it is a widely shared belief that an inefficient banking system, along with market imperfections, allow such SOEs to obtain capital at below market rates (Warner et al, 2004; Buckley et al., 2007; Antkiewicz & Whalley, 2006). Also, because of the impact of the political actions in support of the internationalization of Chinese

firms (Zhan, 1995; Ye, 1992; Liu & Li, 2002), previously mentioned important factors such as political and economic risk do not seem to be of relevance (Yeung & Liu, 2008).

Moreover, a study conducted in 2012 by Ramasamy et al. on Chinese FDI between 2006 and 2008 further elaborates on these concepts. Indeed, in their findings, it appears that Chinese SOEs tend to direct their foreign investments towards host countries that present less competition from developed economies (perhaps because of the low quality of institutions and high political risk) and are abundant of natural resources; on the contrary, private firms appear to behave differently. In other words, FDI from Chinese SOEs tend to be predominantly resource-seeking, while FDI from private firms shows evidence of market seeking-motives (Ramasamy et al., 2012).

In relation to this last argument, it needs to be highlighted that the evidence on how much influence on strategic decisions by private MNCs the Chinese government still remains ambiguous today. On the one hand, the government priorities guide company decisions both directly and indirectly (Deng, 2004); at the same time, as aforementioned in the study from Ramasamy et al. (2012), such influence is largest in state-owned enterprises. This low degree of risk-averseness of Chinese FDI in general may also stem from the fact that SOEs have preferential access to capital below market rates (Zhang & Filippov, 2009).

However, the finding that Chinese companies are attracted to high levels of risk is rather puzzling. It is in fact argued that they are used to operate under uncertain conditions and are familiar with a system in which there are many informal ways of getting things done (He & Lyles, 2008). This view takes into account the linkage aspect which characterizes Chinese firms' internationalization, with particular emphasis on social networks. As it may be recalled, several presented studies indeed have been highlighting the importance that Chinese communities in the host countries appear to have in the location choice for Chinese foreign investment (e.g. Cheung & Qian, 2009; Buckley et al., 2007).

5.3. Relevance of existing FDI theories

In this section, the authors aim at presenting what the literature proposes in relation to whether traditional theories are able to explain FDI flows from China, or whether instead they need to be extended or replaced by new frameworks and theories. It needs to be highlighted that the arguments and the debates on the specific determinants are various and faceted. However, due to the limitations of this thesis, the authors decided to pinpoint one of the most controversial aspects for the underlying research, which is the role played by governments and institutions, both at home and in the host country, for Chinese FDI.

On the one hand, part of the literature agrees on explaining the ability of Chinese firms to compete internationally through country specific advantages (e.g. Rugman & Li, 2007) following classical FDI theory. Additionally, the main discrepancy between foreign direct investment from emerging economies such as China and developed economies lies in the weighting of motives (Nicolas & Thomsen, 2008). On the other hand, the main argumentation in support of the later theories claims that Chinese firms tend to internationalize in order to overcome competitive disadvantages both at home and abroad (Child & Rodrigues, 2005; Nicolas & Thomsen, 2008; Luo & Tung, 2007; Ramasamy, et al., 2012).

These thoughts are further confirmed by a study with a theoretical focus on Chinese OFDI, in which Berning & Holtbrugge (2012) investigated the explanatory power of mainstream international business theories for China. Among the main findings, the analysis showed a clear tendency regarding the applicability of such theories. Indeed, a scarce number of articles supported the applicability of traditional theories to Chinese OFDI without modifications (Berning & Holtbrugge, 2012). The most used underlying theories in the sample articles were, in order, the OLI paradigm, the RBV and the Uppsala Model.

From these finding it appears that the traditional OLI framework does not seem to entirely explain Chinese firms' internationalization. In fact, it is argued that the concept of ownership advantages theorized by Dunning does not seem to entirely apply to the case of firms from developing economies and neither is it relevant for the case of China (Luo & Tung, 2007). At the same time, Chinese FDI is in many cases not path dependent in terms of entry mode or location decision, thus contradicting the Uppsala model of internationalization (Luo & Tung, 2007). As mentioned, much of the literature claims that general theory can indeed explain Chinese outward FDI, though it needs

to be nested with particular special theories related to developing economies such as China (Wells, 1983; Lecraw 1993; Buckley et al., 2008).

5.4. Summary

On a global scale, several quantitative studies have been conducted to determine which host country factors attract Chinese FDI and consequently, which motives stand behind it. Among the general findings, Chinese outward FDI appear to be directed towards host countries with abundant natural resources, high levels of political risk and sizable Chinese population (e.g. Cheung & Qian, 2009; Buckley et al., 2007; Deng, 2004; Ramasamy et al., 2012). Factors such as governmental support, inward linkages and market internationalization allow Chinese firms to generate specific competitive advantages and generate opportunities future learning and growth (Berning & Holtbrugge, 2012).

With the previous paragraph, the part of this thesis dedicated to the theoretical review of theories and literature comes to an end. The critical evaluation of the main theories from Chapter 4 summarized by Table 3 as well as the conclusions afore presented in this last section have set the ground for the development of the hypotheses necessary for the regression analysis further explained in later Chapters. It is necessary to highlight that, although the actual models in this thesis are three ,as it will be explained in 8.3, Model 3 holds the same variables of Model 2. Thus, the following Chapter 6, does not refer to Model 3, as the theoretical support of the variables do not change.

6. Hypotheses Development

The following Chapter reviews the FDI determinants which are derived from the theoretical foundation of the literature review and hypothesizes on their ability to influence the flows of Chinese FDI. To adequately answer the first two research question, the authors decided to develop two different models. Model 1 is a generic model that incorporates determinants that are derived from broader FDI theory. Model 2 is a specific model that consists of the same determinants as model 1, additionally including China-specific influencing factors.

The authors chose to add up onto the first model instead of substituting determinants for a couple of reasons. First, as remarked among the limitations of this thesis⁹, literature on Chinese FDI in Latin America is very limited and there exists no consensus amongst scholars regarding a fitting model (Torp et al., 2011). Second, simply substituting ‘new’ determinants could lead to distorted results, as important factors would be omitted, therefore inevitably mining the data on which the underlying sequential analysis is carried out in this thesis.

With this taken into account, the next sections proceed as follows: the hypotheses which are at the base of Model 1 and the relative choices of proxies are elaborated in 6.1; then, in 6.2, merely the hypotheses that add new explanatory variables to Model 2 are proposed. This approach is intended by the authors to avoid any possible confusion due to unnecessary repetitions. Lastly, for those hypotheses which proved to be problematic during the data collection process, the final constructed proxies will briefly be commented on¹⁰.

6.1 Model 1

Host market characteristics

As shown in the previous Chapter, host market characteristics such as market size and market growth are agreed within the literature to be important determinants of FDI flows. Theory in fact states that larger host-markets can create more opportunities for efficient utilization of resources as well as economies of scale and scope through FDI (UNCTAD, 1998). The OLI paradigm suggests

⁹ See Chapter 9.

¹⁰ An extensive elaboration on the data collection process for all the variables is in any case presented in Chapter 7.

that one of the reasons why companies engage in FDI activities is to take advantage of market opportunities abroad.

Furthermore, it is suggested that horizontal FDI will be positively associated with growth in demand and that growing economies present more opportunities for generating profits than those that are growing slow or not at all (Lim, 1983). Finally, research has shown that FDI flows and market size have a positive relationship (Loree, & Guisinger, 1995; Billington, 1999; Dees, 1998; Shatz, & Venables, 2000). Host markets have also been proven to be relevant for China as an investor (Cheung, & Qian, 2009).

The authors therefore derive the following hypotheses to capture different aspects of the market opportunities that exist in Latin American host countries:

H1a: Chinese FDI flows are positively related with the absolute host market size.

H1b: Chinese FDI flows are positively related with the relative host market size.

H1c: Chinese FDI flows are positively related with the host market growth.

Political Risk

A variety of theories such as the OLI or the studies from Wei (2000) suggest that political instability and weak institutions have a negative impact on FDI inflows due to high costs of doing business. Furthermore, when facing high political risk, market oriented MNCs will tend to either substitute their exporting activities or licensing for directly owned local production. At the same time, resource oriented MNCs are discouraged from committing substantial sunk costs in the form of FDI projects (Buckley, & Casson, 1981, 1999). Measuring institutions accurately is however difficult, as mentioned in Chapter 4; the literature suggests therefore to use an index of the respective country's political and legal institutions.

The authors thus apply two indices for their underlying research. The first relates to the political stability and the risk of violence or terrorism, which the authors call PS. The second is an average index of a country's political and legal systems which incorporates five measures that relate to e.g. government effectiveness, rule of law or control of corruption. The measures that are being used

assign higher values to greater political stability or better institutional quality. The authors call the index INS.

With this in mind, the authors therefore derive the following hypotheses to capture the effect of institutional quality in Latin American host countries:

H2a: Chinese FDI flows are positively related with rising levels of political stability

H2b: Chinese FDI flows are positively related with increasing quality of institutions.

Labor Cost

Both general equilibrium theory and OLI identify cost related reasons as potential motivations for FDI to gain competitive advantages. The same task could in fact potentially be carried out at the same level in the host country at lower expenses. However, costs are hard to measure since drivers vary greatly depending on the industry that is being looked at. The underlying research does not differentiate between different industries and takes a macro instead of a micro perspective.

Although the cost structure of some industries is determined by conventional assets such as machinery and equipment, other industries view their human resources as their most important asset. Based on the assumption that any company requires a certain number of employees to be run, the authors have decided to capture the mentioned cost related reasons through wage levels. As the authors investigate total FDI flows which do not differentiate between industries, the authors chose to use average wage as a proxy. This enables to capture the wage effect regardless of industry unlike minimum wage which would only apply for lowly skilled employees.

The authors therefore derive the following hypothesis to capture the effect of costs proxied by wages in Latin American host countries:

H3: Chinese FDI flows are negatively related with increasing labor cost

Openness

Tariff-jumping FDI aside, the more open an economy is to international investments, the more attractive it is likely to be as a destination for FDI (Chakrabarti, 2001). Resmini (2000) finds that mostly vertical FDI flows benefit from increasing market openness. Singh and Jun (1995) highlight how export orientation is an important factor in attracting FDI. Precisely, the more freedom is granted to potential investors, the lower the transaction costs related to that investment. In the context of this thesis, freedom could be e.g. levels of government intervention in investments or number of procedures required for setting up a business or carrying out an investment.

Measuring freedom or openness accurately is difficult and the authors therefore chose to select four proxies to best capture openness effects. The first proxy is the ratio of trade to GDP in the respective host country, while the last three are open market indices that compose freedom measures of trade, investment, and finance. For each proxy, a higher value indicates a better openness score. Although these variables relate to institutional factors to some degree, a possible direct causal link between the aforementioned cannot be yet confirmed.

The authors therefore derive the following hypotheses to capture the effect of openness in Latin American host countries:

H4a: Chinese FDI flows are positively related with an increasing trade to GDP ratio.

H4b: Chinese FDI flows are positively related with increasing trade freedom.

H4c: Chinese FDI flows are positively related with increasing investment freedom.

H4d: Chinese FDI flows are positively related with increasing financial freedom.

Natural Resources

As Dunning states in his studies, natural resources which are not or not as efficiently available in the home market tend to attract FDI. With this taken into account, it is necessary to highlight how the Chinese government has regularly carried out FDI to acquire domestically scarce factor inputs as its economy has grown (Ye, 1992; Zhan, 1995). Ramasamy et al. (2012) argue that Chinese SOEs are motivated by access to natural resources and risky environments to support the export function of state owned manufacturers. Furthermore, the internalization theory emphasizes on importance of control through equity in the exploitation of scarce (natural) resources. Due to data restrictions, the authors opt to employ the rate of ores, minerals and fuels over total merchandise exports as a proxy for natural resources¹¹.

Thus, the authors derive the following hypothesis to capture the effect of natural resources in Latin American host countries:

H5: Chinese FDI flows are positively related with increasing exports of natural resource levels.

Trade Relations

With trade relations, this thesis refers to economic ties of a home country with other countries (Dunning, 2006), which provide firms with competitive advantage. The main idea is related to the fact that a high level of trade between the host and the home countries will enhance the flows of FDIs (Buckley et al, 2012). Also, following a logical assumption, countries with solid economical relationships will automatically encourage their firms to establish additional types linkages at all the different levels of business.

Exports from China proxy the intensity of trade relations between home and host country by capturing the market-seeking motive of Chinese firms. During throughout the 80s, much Chinese foreign investment was directed to provide support for domestic Chinese exporters overseas and to help them increase their currency earnings (Wu and Sia, 2002). Although relatively small in size,

¹¹ For further elaboration, see Chapter 7.

such investments enhanced exchange of information, financial and transportation services as well as further stimulated international trade for Chinese firms in foreign markets (Ye, 1992; Zhan, 1995).

Based on empirical evidence, this type of FDI intended overcome trade barriers is likely to be mainly directed towards in countries that already import a substantial amount of Chinese products. Due to its large volume, Chinese exports tend to a positive influence on the location of China's ODI on a global scale (Ramasamy et al., 2012), find that. This leads to the derivation of the following hypothesis:

H6: Chinese FDI is positively related to exports into the host country.

The hypotheses developed, the variables used as proxies and the expected relationships are summarized in Table 4. The table also includes the abbreviation of each variable that is used in the regression models, including theoretical justification for adding the variable and the data source.

Table 4 - Variables Model 1

Hypothesis and Number	Proxy	Code	Theoretical Justification	Data Source
H1: Host Market Size H1a: Absolute Market size	Host Market GDP	GDP	OLI (<i>market-seeking</i>) Gravity Model	World Bank Database
H1b: Relative Market size	Host Market GDP per capita	GDPP	OLI (<i>market-seeking</i>) Gravity Model	World Bank Database
H1c: Market Growth	Host Market GDP Growth, annual	GDPG	OLI (<i>market-seeking</i>)	World Bank Database
H2: Political Risk H2a: Political	Host Country Political stability rating	PS	Partial Equilibrium Analysis	World Bank Development

Stability				Indicators
H2b: Institutions	Host Country Institutional quality rating	INS	Partial Equilibrium Analysis	World Bank Development Indicators
H3: Labor Cost	Host Market Average wage	AW	OLI (<i>efficiency-seeking</i>)	Economic Observatory of Latin America (OBELA), World Bank Database
H4: Market Openness H4a: Trade Openness	Trade to GDP ratio of the host country	TGDP	Partial Equilibrium Analysis	World Bank National Accounts
H4b: Trade Freedom	Trade Freedom Rating	TF	Partial Equilibrium Analysis	The Heritage Foundation
H4c: Investment Freedom	Investment Freedom Rating	IF	Partial Equilibrium Analysis	The Heritage Foundation
H4d: Financial Freedom	Financial Freedom Rating	FF	Partial Equilibrium Analysis	The Heritage Foundation
H5: Natural Resources	Host Country Ores and Mineral Exports over total Merchandise exports	NR	OLI (<i>resource-seeking</i>)	World Bank Development Indicators
H6: Trade Relations	Ratio of Chinese product imports over the total host country product imports	IMP	Partial Equilibrium Analysis Uppsala Model	International Trade Center (ITC), World Bank Development Indicators

Our discussion suggests the following equation for **Model 1**:

Equation (1)

$$\ln\text{OFDI} = \alpha + \beta_1\ln\text{GDP} + \beta_2\ln\text{GDPP} + \beta_3\text{GDPG} + \beta_4\text{PS} + \beta_5\text{INS} - \beta_6\ln\text{AW} + \beta_7\text{TGDP} + \beta_8\text{TF} + \beta_9\text{IF} + \beta_{10}\text{FF} + \beta_{11}\text{NR} + \beta_{12}\text{ELINK} + \varepsilon_{it}$$

Following the approach of Buckley et al. (2007), some of the data are transformed into natural logarithms as non-linearities are to be expected on the basis of theory and previous empirical work. Further elaboration on the chosen statistical method and its related variables specification is carried out in Chapter 7.

6.2 Model 2

This section presents the development of the hypotheses behind the second model - Model 2 - which is later adopted by this thesis. Because Model 2 is a further extension of Model 1 previously introduced in the related section, the authors decided not to present the hypotheses for the determinants which apply in both models, in order to avoid repetition. Indeed, while such determinants hold enough theoretical importance to be kept in the second model, the following pages will merely focus on the hypothesis development behind the new specific determinants which characterize Model 2.

Such hypotheses can be divided into two groups, which include the main factors that determine and influence the environmental conditions that Chinese FDI face when entering in the host country. More precisely, these refer to the local institutional environment and the liability of foreignness faced by the Chinese investors. Regarding the institutional environment, some words need to be spent in the following paragraph on the institutional hypothesis derived, in order to avoid possible misunderstandings and confusion with the previous section.

Institutional Environment

As stressed already several times throughout this thesis, because of the lack of existing literature on Chinese foreign investment in Latin America, two different models are being considered and tested by the authors. Among the determinants, the one related to the role of institutions is of particular attention. As presented in the previous section, theories from the literature suggest the existence of a positive relation between FDI and the level of host country institutions; therefore, because model 1 is built taking into consideration classical FDI theory, the expected sign of the institutional determinant is positive.

However, because there is empirical evidence suggesting that Chinese investors are affected differently by level of institutions and by political risk in the host country (Buckley et al, 2007; Kolstad and Wiig, 2012; Ramasamy et al., 2012), the related hypotheses to be included into Model 2 is now reverted. As it is the aim of the authors to develop a China-specific model bearing consistent explanatory power, the following hypotheses are developed:

H2a: Chinese FDI is attracted to countries with high political instability

H2b: Chinese outward FDI is attracted to countries with poor institutions

Reducing Liability of Foreignness

Theories introduced in the previous Chapter highlight the liability of foreignness to be an important impediment for foreign investors to overcome. The physical distance between China and Latin American countries, as well as the distance in terms of language, culture and political and social institutions, can be assumed to be equally significant for all the countries in said region indistinctively.

However, there are a number of factors on which Chinese investors can rely on to potentially ease the entrance and the further establishment within the Latin American market. Particularly, the latecomer theory and the springboard view emphasize the importance of networks and cultural closeness for investors from developing economies to access foreign markets overseas. Because of the importance of such linkage factors and to investigate how relevant they are in the location choice of Chinese foreign direct investment, the authors decided to include them in the analysis.

Political Linkages

With political linkages, this thesis refers to governmental ties of a home country with other countries, which provide firms with competitive advantage (Dunning, 2006). Often, foreign direct investments are influenced by subjective perception of the political relations with the host country government. Indeed, investors themselves have to watch closely for interstate cooperation or conflict events that provide invaluable information about the business environment in a particular host country (Nigh, 1985).

Also, Li (2006, 2008) considers how rational expectations and uncertainty on the part of foreign investors influence the way in which international conflicts affect investment behaviors. In relation to this, forward-looking investors constantly anticipate how political violence affects both the expected returns of their investments and hostile policy changes. When firms anticipate high risks, they may reduce investments *ex ante* before violence occurs (Li & Liang, 2012). Furthermore, Li et al. (2010) consider military conflicts and security alliances often affect both government policies toward the host country business environment and investor expectations of political risk in such country. In other words, from the perspectives of both states and investors, military conflict should reduce bilateral investment whereas security alliances increase it.

Following the argumentations behind the development of Hypothesis H2b it is conceivable that Chinese firms tend to invest in politically risky host countries. Indeed, this may be the case because of the existence of good political relations between such countries and China, providing preferential treatment and protection of Chinese investors. On the other hand, evidence illustrates how FDI from China have been facing several political obstacles in relation to national security and employment concerns in specific sensitive industries (Li & Liang, 2012). Therefore, establishing the impact of China's political relations on foreign direct investment may help resolve this important puzzle.

As the majority of FDI from China has been undertaken by SOEs, with a significant part in extractive industries (including oil, gas and metal mining), it is logically arguable that such investment is often affected by political matters both at home and abroad. The state-owned nature endows these central SOEs with the “national champion” status and monopolistic power in their industries, which leads to their high financial returns (Thun, 2004). As a result, Chinese investments are sometimes considered to be motivated by political reasons in association with strong government incentives (Deng, 2007). Hence, host countries that have less favorable political

relations with China are likely to guard against Chinese investments whereas other countries that have more favorable political relations with China are likely to welcome those investments.

Based on these discussions, the authors expect that the presence of positive relationships between the Chinese government and the governments of Latin American countries will positively influence internationalization investment decisions of Chinese firms. Thus, the following hypothesis is derived:

H7: Chinese FDI is attracted to countries with good political relations with China

Cultural Proximity

In order to capture and measure the effect that cultural proximity has in overcoming the liability of foreignness that Chinese firms face when expanding in Latin America, this thesis decides to focus on two main arguments. On the one hand, it focuses on the importance of social networks and social relationships existing between China and the host countries for the choice of investment location. On the other hand, it takes into account the concept of Cultural Distance between countries and its implications for investors (Vahlne & Wiedersheim- Paul, 1977).

In regard to the latter topic, Cultural Distance can be defined as differences in terms of how individuals from different countries observe certain behaviors. Such differences affect the extent to which working practices and methods can be transferred from one country to another (Hofstede, 1980, 1991). In entering an institutional environment with a different set of rules, MNCs inevitably find themselves pressured to establish social legitimacy in the host country. At the same time Chinese corporations typically tend to make investment decisions which are informed by established mind-sets and existing practice, reinforced by institutional norms (Child & Rodrigues, 2005).

The difficulty in achieving this task is therefore related to the cultural distance between the country of origin and the host country (Cui & Jiang, 2009; 2010). Moreover, as it has been widely emphasized by the literature such distance can lead to additional costs in terms of acquisition of information, business integration and communication processes (Chen & Hu, 2002; Madhok, 1997; Pak & Park, 2004; Randoy & Dibrell, 2002). Based on these discussions, it can be deduced that

Chinese investments will be attracted by Latin American countries with lower cultural distance with China. Thus, the following hypothesis is derived:

H8a: Chinese FDI is negatively related to the cultural distance in the host country

Since 1979, the Chinese diaspora has been one of the drivers of the emergence of China as a player into the world economy, as confirmed by studies from Yeung & Olds (1999), Siroski & Menkhoff (2000) and Ng & Tuan (2002). The importance of the social dynamics characterizing the establishment of personal networks of interest (referred to as *guanxi*) has affected the business expansions of Chinese firms through the establishment of networks based on personal relationships and social connections (Luo, 1997). Ethnic and family networks have emerged as firm-specific advantages for Chinese companies, as they reduce business risk and transaction costs (Erdener & Shapiro, 2005).

At the same time, such cultural linkages might also play an important role into the late entrance of Chinese firms into international markets (Li, 2003). Furthermore, several studies within the recent literature have highlighted that the presence of Chinese communities in the host country has a positive effect on Chinese FDI (Ramasamy et al., 2012; Buckley et al., 2007; Deng, 2004). These argumentations suggest that foreign investment from China will be directed towards countries with a significantly large Chinese resident population; in other words, countries which Chinese investors have the possibility to establish (or have established) various types of cultural linkages will be chosen as overseas markets to enter.

Because of the limitations and the reliability of data regarding Chinese population in Latin American countries (further elaborations on the choice of such proxy to be found in Chapter 9), this thesis decides to capture the size of Chinese communities in the host countries by considering the international Chinese tourism in said region. It is therefore assumed that local Chinese communities in foreign countries and their further expansion imply frequent travel connections with the home country. Thus, recalling the main arguments so far presented, the following hypothesis is derived:

H8b: Chinese FDI is positively related to the presence of Chinese local communities

Table 5 summarizes the hypotheses so far developed, the variables used as proxies and the code of each variable as it is used in the regression model. The table also displays the expected relationships, the theoretical justification and the data source for each variable.

Table 5 – Variables Model 8

Hypothesis and Number	Proxy	Code	Theoretical Justification	Data Source
H1: Host Market Size H1a: Absolute Market size	Host Market GDP	GDP	OLI (<i>market-seeking</i>) Gravity Model	World Bank Database
H1b: Relative Market size	Host Market GDP per capita	GDPP	OLI (<i>market-seeking</i>) Gravity Model	World Bank Database
H1c: Market Growth	Host Market GDP Growth, annual	GDPG	OLI (<i>market-seeking</i>)	World Bank Database
H2: Political Risk H2a: Political Stability	Host Country Political stability rating	PS	Partial Equilibrium Analysis	World Bank Development Indicators
H2b: Institutions	Host Country Institutional quality rating	INS	Partial Equilibrium Analysis	World Bank Development Indicators

H3: Lbor Cost	Host Market Average wage	AW	OLI (<i>efficiency-seeking</i>)	Economic Observatory of Latin America (OBELA), World Bank Database
H4: Market Openness H4a: Trade Openness	Trade to GDP ratio of the host country	TGDP	Partial Equilibrium Analysis	World Bank National Accounts
H4b: Trade Freedom	Trade Freedom Rating	TF	Partial Equilibrium Analysis	The Heritage Foundation
H4c: Investment Freedom	Investment Freedom Rating	IF	Partial Equilibrium Analysis	The Heritage Foundation
H4d: Financial Freedom	Financial Freedom Rating	FF	Partial Equilibrium Analysis	The Heritage Foundation
H5: Natural Resources	Host Country Ores and Mineral Exports over total Merchandise exports	NR	OLI (<i>resource-seeking</i>)	World Bank Development Indicators
H6: Trade Relations	Ratio of Chinese product imports over the total host country	IMP	Partial Equilibrium Analysis	International Trade Center (ITC), World Bank Development

	product imports		Uppsala Model	Indicators
H7: Political Proximity	Political closeness index rating between the Home and the Host country	PLINK	Partial Equilibrium Analysis, Government steward logic, Latecomer Theory	SIRPI Arms Transfer Database; WTO Database; SICE Foreign Trade Database; Ministry of Foreign Affairs
H8: Cultural Proximity H8a: Cultural Distance	Cultural Dimension index rating between the Home and the Host country	HLINK	Uppsala Model, Latecomer Theory	Hofstede; GLOBE project
H8b: Social Linkages	CP: =1 When percentage of Chinese incoming tourists in total incoming tourists is > 1%	CP	Latecomer Theory	UNWTO Database; World Bank Database;

Our discussion suggests the following Equation (2) for the model;

$$\ln\text{OFDI} = \alpha + \beta_1 \ln\text{GDP} + \beta_2 \ln\text{GDPP} + \beta_3 \text{GDPG} + \beta_4 \text{PS} - \beta_5 \text{INS} - \beta_6 \ln\text{AW} + \beta_7 \text{TGDP} + \beta_8 \text{TF} + \beta_9 \text{IF} + \beta_{10} \text{FF} + \beta_{11} \text{NR} + \beta_{12} \text{IMP} + \beta_{13} \text{PLINK} - \beta_{14} \text{HLINK} + \beta_{15} \text{CP} + \varepsilon_{it}$$

Similarly to the approach taken for the specification of Model 1, the same natural logarithms are constructed, adopting the same functional form.

7. Methodology

This Chapter aims to illustrate the main methodological choices made by the authors through this thesis. In particular, argumentations related to data sources, data collection as well as statistical methods that are being employed for the underlying research will be illustrated extensively. Finally, potential concerns regarding validity and reliability of the data collected and the regression analysis conducted will be commented on.

7.1 Data Sources and Selection Criteria

This section starts with a definition of the research population. Afterwards, sources from which both FDI and host country data are drawn will be explained, and the selection criteria for the data will be described.

7.1.1 Data on FDI flows

The target population of the quantitative analysis consists of net FDI flows into all Latin American countries which do not belong to the Caribbean or any other region such as Puerto Rico, which is an oversea territory of the United States. As previously mentioned, ‘Caribbean’ countries such as Cayman Islands or British Virgin Islands were left out as FDI flows into these tax havens are usually not the final destination of capital and would therefore distort the analysis (Morck et al., 2008).

In China, many regulatory and institutional restrictions were imposed on outward FDI before the “*zou chu qu*” (go global) policy of 1999, which was not fully implemented before 2002 (Buckley et al., 2007). Previous to that policy, requirements for Chinese outward FDI and the overall investment environment differed to what is in place now to a great extent, which is why the underlying motivations of earlier authorized FDI projects can hardly be compared to investments of the recent years. Thus, as the aim of this thesis is to draw implications from contemporary FDI, only investments made after the full implementation of the *zou chu qu* policy will be included.

Additionally, it needs to be highlighted how the authors' first priority was to ensure consistent data sources throughout both the observation sample and time frame, in order to create comparability and reduce potential distortions of results. Over the course of the data collection however, it became clear that single-source data for all countries and points in time was either scarce or nonexistent for some of the variables. To move forward with the analysis and due to the Chinese go global policy as well as data issues for 2002 and 2016, the authors decided to reduce the time-frame to 2003 – 2015 and created indices for selected variables such as institutions or openness and political linkages. The methodology for creating those indices will be elaborated on briefly in the section related to host country data.

Apart from the 'conservative' theory-based determinants such as market size or openness, China- as well as developing economy specific variables such as natural resources or political and social linkages have been included in the analysis. However, this choice implied higher difficulty in the data collection process, which lead to few countries being removed from the sample, resulting in 17 countries that compose the research population which add up to 85% of the target population¹².

In particular, following the 'law of large numbers', samples of absolute larger size are more likely to represent the population from which they are drawn and the mean is more likely to equal the mean for the population (Saunders et al., 2009). Once again, the reduction of the research population was carried out during the data collection process. Selection criteria were both availability of OFDI data on the one hand, and explanatory variable data on the other hand. In case of no data regarding OFDI-flows or no data for at least one explanatory variable in combination with scarce data for at least one more variable, countries were excluded from the sample¹³.

Data sources on FDI flows

A major challenge when analyzing Chinese OFDI is the lack of reliable data. Although UNCTAD provides high quality data for FDI stocks and outflows, the bilateral FDI statistics for China only capture few of the Latin American countries; also, such statistics do not provide any data after 2012. At the same time, the Chinese Ministry of Commerce (MOFCOM) publishes the '*Statistical*

¹² For reference, see Appendix 6.

¹³ For reference, see Appendix 6.

Bulletin of China's Outward Foreign Direct Investment' which is the most favorable source for statistics on Chinese FDI activities and releases annual data on the value of Chinese outward direct investment flows. Also, compared to UNCTAD, it incorporates more Latin American countries and covers a time frame of 2003 – 2015.

However, it needs to be mention that the data may be inaccurate for the following reason: Only outward FDI flows that are approved by national authorities are included in the data. This leads to an exclusion of both small investment flows that are only registered locally (Nicolas, & Thomsen, 2008), as well as projects financed outside China, e.g. either through Chinese companies which are registered outside of mainland China or by foreign loans (Milelli, & Hay, 2008). As mentioned in Chapter 2, this issue is of special interest due to the fact that a large amount of Chinese FDI flows into Hong Kong or international tax havens such as the Cayman Islands, from where it may be re-invested abroad (Morck et al., 2008).

At the same time, additional data for the comparative analysis which is carried out in section 8.3 has been collected by the authors. After choosing the Netherlands as a developed economy to benchmark Chinese investment¹⁴ with, Dutch investments have been extracted from the OECD database on FDI flows. The OECD database is constantly being maintained and updated, which ensures high quality data on the majority of host countries and years.

7.1.2 Host country data

All host country data that is used for analysis is secondary. To varying extents, the according data already exists and would be outside of the author's ability to collect via primary data collection. Indicators were retrieved from both national and international databases that are compiled and administered by renowned institutions, therefore a high level of data quality is guaranteed. In addition to databases, reports that also have been issued by the same or similar institutions have been used to create comprehensive and holistic data. When necessary, data sources were combined to calculate a proxy for the data that was not available. As mentioned before, in case of no data

¹⁴ This comparison is aim to answer this research subquestion. A further elaboration on the motives of the choice of The Netherlands can be found at the beginning of 8.3.

found for at least one variable in combination with scarce (i.e. less than five years available) data for at least one more variable, countries were excluded from the sample.

Sources of host country data

As for the case of data on FDI the authors were facing challenges regarding single sources for the different countries and covering the entire time frame. With this take into account, and recalling the hypotheses developed for the two models, the next paragraphs proceed to briefly present each adopted proxy with the corresponding source and respective calculations, if applicable.

Market Size

The authors use three variables to account for market size, namely (nominal) host country GDP in current USD, nominal host country GDP per capita in current USD and annual percentage increase in GDP. All three indicators were derived from the World Bank database.

Institutions

Institutional quality is measured through six institutional variables, which were also provided by the World Bank database. These variables are *Voice & Accountability*, *Political Stability & Absence of Violence/Terrorism*, *Government Effectiveness*, *Regulatory Quality*, *Rule of Law* and *Control of Corruption*. These indicators compose the Worldwide Governance Indicators and each of them ranges from values between -2.5 to +2.5, where higher scores correspond to better governance. Although Political Stability and Absence of Violence/Terrorism (PS) is being used on its own for the final model specification, the remaining five variables were combined and weighted to create an average composite indicator.

The authors chose to do this for two major reasons.

First, due to severe correlation/multicollinearity (for reference check Appendix 1), keeping those variables on their own would have caused a distortion of results. Second, PS is the only ‘external’ variable, meaning that it is not strictly determined by political systems or internal mechanisms as it includes the risk of the current government being overthrown, as well as violence and terrorist attacks. Although these are certainly influenced by the political landscape of a country, they can also be greatly influenced by external factors such as religion or geographic location. The authors therefore do not see PS on the same ‘internal’ level as e.g. government effectiveness or rule of law, which are direct consequences of political practices that are in place.

Labor cost

In this thesis, labor cost is calculated as average yearly wages in USD in the respective host country. Because no single, consistent source on average wages regarding both country and time coverage was available to the authors, a proxy has been therefore constructed, based on attainable secondary data. Precisely, real average wage indices (base year = 2005) in USD covering all LA countries were used and multiplied with the real GDP per capita (base year = 2005) in USD to construct the proxy. Also, to calculate real GDP per capita, a GDP deflator was used in combination with the aforementioned nominal GDP per capita and readjusted for the base year to be 2005.

Wage indices were obtained from a dataset of the Economic Observatory of Latin America (OBELA). The nominal GDP per capita and GDP deflator were derived from the World Bank database. Calculations to adjust the deflator base year to 2005 for each country and to arrive at real GDP were carried out by the authors. The calculation that was carried out to reach average wage measures can be found in Appendix 4.

Market Openness

In this thesis, four different measures based on the literature have been used as proxies for Market Openness. The first one is the ratio of trade to GDP of the host country, for which data is provided by the World Bank national accounts database. The remaining proxies are measured by the Open Market indices used in the calculation of the Economic Freedom Index by The Heritage Foundation. Such indices are *Trade Freedom*, *Investment Freedom* and *Financial Freedom*. The mentioned indices are treated as independent proxies since the authors aim is to best investigate whether each of them plays a role for the underlying study. Each of these categories is graded on a scale of 0 to 100 (Heritage, 2017). For each proxy, a higher value indicates a better openness score.

Natural Resources

The proxy used by this thesis to measure Natural Resources of the host countries throughout the years is the ratio of ore, minerals and fuel exports over the total merchandise exports. Data are provided from the Development Indicators from the World Bank database.

Trade Linkages

To capture trade linkages with the host countries, the authors use the ratio of product imports from respectively China and the Netherlands over total product imports per year. The data of product imports from China and The Netherlands to the host countries are provided by the International Trade Centre (ITC), while the value of the total merchandise imports is derived from the World Bank database.

Source of linkages data

Political Links

In order to capture the political linkages with the host country, this thesis proposes an index of five different political closeness measures. Each of these measures is transformed into an index itself, then combined into the aggregated index. It is important to highlight that the indices are constructed as a ranking of the 17 countries taken into consideration in this study¹⁵.

These five measures are military imports from China and The Netherlands, the number of Free Trade Agreements, number of Bilateral Investment treaties, number of international organizations which the host country listed in together with the source country and the number of embassies and consulates that the source country has within the host country. The data for each measure is provided in order, respectively from the SIRPI Arms Transfer Database, the WTO database, SICE Foreign Trade Information System, the CIA Fact book and the Ministries of Foreign Affairs of China and The Netherlands.

Cultural Links

When attempting to capture the effect of cultural linkages towards the host countries, there are several proxies which result to be widely used in the literature. One of them is related to the number of citizens of a particular country living in another given country as residents, to determine the size of local Chinese communities (Buckley et. al, 2007). At the same time, as presented in the hypotheses development of this thesis (Chapter 6), a measure of cultural distance is indeed needed as a support to the creation of social networks. With this regard, one of the most recurrent proxies for cultural distance is arguably the index developed by Kogut & Singh (Barkema & Vermeulen, 1997), which is based on the well-known cultural study conducted by Dutch researcher Geert Hofstede (1993) on cultural dimensions.

Therefore, this thesis opts to use the ratio of incoming tourists from the observed countries (respectively from China and The Netherlands) over the total number of incoming tourists in Latin America, from the year 2003 to 2015. The data are primarily provided by the United Nations World

¹⁵ The description of the elaboration process can be seen in Appendix 5.

Tourism Organization (UNWTO) and the World Bank; the only exception comes with the case of Argentina, which data were provided to the authors directly by the Argentine Ministry of Tourism (Dirección Nacional de Mercados y Estadística, Subsecretaría de Desarrollo Turístico, Ministerio de Turismo), since they were not available through the UNWTO database.

7.2 Choice of empirical methods

This section aims to present the chosen methodology for the underlying statistical analysis. In particular, to answer the research questions, the authors need to investigate which host country factors attract Chinese FDI. The preferred empirical method to determine the relationship between various independent variables (host country factors) and one dependent variable (Chinese OFDI flows) is a regression analysis (Backhaus et al., 2006).

With this regard, one of the first decisions taken by the authors was to adopt a panel data analysis. A panel data set is a data set that follows a given sample of observational units, in this context host countries, over time, in this context years, thus providing multiple observations for each country in the sample over time. It can be referred to as a combination of cross-sectional and time-series data (Hsiao, 2003). As mentioned in the previous section, the dataset of the underlying case is constituted of observations regarding 17 countries over a time frame of 13 years each. It is a balanced panel data set, meaning that each unit of observation is observed the same number of time periods, T . Thus, total sample size is NT .

There are three static regression methods to analyze panel data, namely pooled ordinary least squares (Pooled OLS), fixed effects generalized least squared (FE) and random effects generalized least squares (RE). In pooled OLS multiple linear regressions are carried out and to achieve unbiased, efficient and consistent estimators using OLS, the usual conditions must be fulfilled. However, it often is problematic to use OLS on panel data models. Given that this thesis repeatedly observes the same countries over several time periods, it is typically unrealistic to assume that the error term from different periods are uncorrelated. Therefore, the potential issue of serial correlation, among others, needs to be tested and corrected for (Verbeek, 2008).

The FE model allows for unobserved individual heterogeneity that may be correlated with regressors. Such unobserved heterogeneity leads to omitted variable bias that could be corrected by

instrumental variables methods using only a single cross section, though in practice it can be difficult to obtain a valid instrument (Verbeek, 2008). Also, it has to be noted that one side effect of applying the fixed effects model is that it cannot be used to investigate time-invariant causes of the dependent variables. Technically, time-invariant characteristics of the individuals are perfectly collinear with the person or entity dummies. Substantively, FE models are designed to study the causes of changes within an entity. A time-invariant characteristic cannot cause such a change, because it is constant for each entity (Kohler & Kreuter, 2005).

Unlike FE, RE models assume that the entity's error term is not correlated with the predictors, allowing for time-invariant variables to play a role as explanatory variables. An advantage of RE is that one can therefore include time-invariant variables. In FE, these variables are absorbed by the intercept (Torres-Reyna, 2007).

To decide between fixed or random effects, the Hausman test can be performed, where the null hypothesis is in substance that the preferred model is random effects, while the alternative hypothesis is that fixed effects is preferred (Congalton & Green, 2008). More precisely, it tests whether the unique errors (u_i) are correlated with the regressors, the null hypothesis is that they are not. Similarly, to decide between RE and a simple OLS regression, the Breusch-Pagan Lagrange Multiplier can be performed (Buckley et al., 2007). In this case, the null hypothesis is that variances across entities is zero, meaning that there is no significant difference across units.

What follows are various tests to verify the robustness of the models. To identify heteroskedasticity¹⁶ the authors investigate the distribution of the residuals on the fitted values, as well as carrying out the Breusch-Pagan Cook-Weisberg test (Williams, 2015). The null hypothesis in this test is that their error term has constant variance and rejecting the null signals presence of heteroskedasticity. Furthermore, cases of severe multicollinearity are being analyzed through checking correlation charts (problems usually arise for values by $\geq .8$) as well as the variance inflation factor (VIF) table (problematic if values ≥ 10).

¹⁶ One of the key assumptions of regression is that the variance of the errors is constant across observations. If the errors have constant variance, the errors are called *homoscedastic* (Het, 1999).

The Wooldridge test is carried out to check for autocorrelation in panel data, as it is a relatively new test which can be applied under general conditions and is easy to implement (Drukker, 2003)¹⁷. Its null hypothesis states that no first-order autocorrelation is present within the data. In addition to the aforementioned test, each model will be evaluated regarding F-statistics¹⁸ as well as R squared¹⁹.

Moreover, to investigate heterogeneity within the data, a structural break framework is applied (Buckley et al., 2007). In that context, the overall sample (2003 - 2015) is divided into two sub-samples (2003 - 2007 & 2008 - 2015) and motivations to split up the data this way are presented as follows. The financial crisis started impacting global FDI in 2008 and the aforementioned time split allows to identify potential changes in investments motives in this context (De Beule & Van Den Bulcke, 2010). Although China is a country that was hit with less intensity when compared to other geographic and economic regions, not paying attention to this major shock to the global economy would potentially distort results. A potential preference of China to invest in developed or developing economies will not be taken into account for further analysis as all Latin American countries are considered as developing economies (United Nations, 2017).

Finally, all statistical analysis is being carried out using STATA. The following highlight the detailed steps of the methodological approach for each of the Models 1-3 to ensure that the reader is able to infer how the final specification was reached.

7.2.1 Model 1

Preliminary regressions have shown that the initial model was subject to severe multicollinearity; in order to correct for that issue, based on the correlation charts visible in appendix 1, the variables GDPP, IF and FF were removed.

¹⁷ The classical Durbin Watson test is not possible for the authors to perform, when using panel data analysis in STATA.

¹⁸ The value being tested by the Prob(F) is the probability that all of the regression coefficients are zero. The F test is often used to verify the correct specification of the model (Anderson et al., 2014).

¹⁹ This is a statistical measure determining of how close the data are to the fitted regression line. It is commonly used to determine the explanatory power of regression models (Anderson et al. 2014).

The results of the Hausman test point towards using a FE model²⁰. However, FE is not applicable for Models 2 nor thereafter, as new time-invariant variables are being introduced. Thus, to ensure a certain level of comparability between Model 1 and 2, the authors therefore decide to move forward with a RE estimation. Results from the LM test show that the RE model is favoured at the 10% level and the Wooldridge test highlights first-order autocorrelation at the 5% level²¹.

Few considerations need to be highlighted; on the one hand, based on this result, using the RE would be preferable as it automatically corrects for autocorrelation. On the other hand, a certain level of autocorrelation within the data is expected²². Therefore, automatically correcting for this characteristic could potentially lead to distorted results. As the tests do not favor RE over pooled OLS for later Models and differences in output for both methods are miniscule for all Models²³, it can be derived that the given case of serial correlation can be neglected. Based on this, the authors decide to show the general output for both RE (1) and pooled OLS (2) general models and present the time-split for pooled OLS - (3) and (4) - to ensure comparability with later Models.

After deciding to select the Pooled OLS for both generic and time-split, the authors conducted the Breusch-Pagan / Cook-Weisberg test, which showed that heteroskedasticity is indeed present²⁴. To correct for this, robust standard errors are applied in the regression. Further statistical information on the robustness of the final specification, namely correlation chart and VIF table, are presented in 8.1.1 and will be elaborated on briefly in the respective part.

²⁰ For reference see Appendix 1.

²¹ For reference see Appendix 1.

²² The authors argue that investments decisions across time tend to be not entirely independent. In other words, the decisions taken in one year affect, to a certain degree, the decisions for the next year.

²³ For reference see Appendix 1.

²⁴ For reference see Appendix 1.

7.2.2 Model 2

Similarly to Model 1, Model 2 uses panel data to capture the dynamics of Chinese FDI in Latin America over time. Because the importance of including a structural break framework to investigate heterogeneity within the data continues to hold value, the same time periods (2003-2007 and 2008-2015) are analyzed. Also, in line with the argument presented for 7.2.1, a fixed effects model cannot be used because of the presence of time-invariant variables within Equation (2). Thus, the LM test was performed to indicate the preferred model between POLS and REs; as it can be seen in Appendix 2, its results do not point in the direction of the application of random effects. Moreover, because the REs regression ran for Model 2 present the same coefficients as the pooled OLS, the authors concluded there is no evidence in support of using random effects and adopted pooled OLS instead.

While detailed descriptive statistics of the data are presented in 8.2, robustness checks visible in appendix 2 have been conducted to support the POLS model chosen. The Breusch-Pagan was performed highlighting heteroscedasticity in the data. For this reason, robust standard errors are computed in the regressions. Also, in order to verify the existence of serial correlation within panel data, the Wooldridge test for autocorrelation was applied.

However, although presence of serial correlation is found in the data²⁵, because of the high similarity of results across the models, the authors concluded the degree of serial correlation does not present a severe problem for the analysis. At the same time, as mentioned in 7.2.1, a certain amount of autocorrelation in the panel data regression conducted is to be expected and can be tolerated. In fact, the authors argue how investments decisions taken by investors in one year tend to be somehow influenced and affected by decisions taken in the past.

²⁵ For reference see Appendix 2.

7.2.3 Model 3

In respect to the models so far introduced, Model 3 presents some fundamental differences. In fact, recalling the reasons behind the need for this model in order to best tackle the third sub-research question, the two separate databases for China and The Netherlands have been merged to allow the statistical study of the differences that the same variables have on outward FDI from the two countries. For these reasons, Model 3 uses a slightly different panel data analysis than the first two, removing the time dimension²⁶. At the same time, due to data limitations regarding the attainability of outflow of Dutch outward FDI to Latin American countries, the overall time frame for the study in question have been reduced to 2003-2012.

Excluding the fixed effect model for the same reasons highlighted in the previous section, the absence of a time dimension in the panel data, the tests for serial correlation conducted for both Model 1 and Model 2 are not applicable. However, the authors argue that while a certain degree of correlation is to be expected²⁷, such phenomenon is assumed to be similar for both Chinese and Dutch investors, considering the same period of time. Thus, serial correlation does not present a particular issue for the results of Model 3. Following the aforementioned reasons, the authors decided to discard REs and to adopt the pooled OLS estimator for the regressions in the model²⁸. Moreover, after the residuals analysis, and considering the Breusch-Pagan test results pointed towards evidence of heteroscedasticity in the data when considering a regression for China only²⁹, robust standard errors have been implemented.

²⁶ Both countries with the respective dependent variables are analyzed through the same period of time: every country presents an exact duplicate of the variable Year. Thus, it is not possible to set panel data grouping for such variable.

²⁷ See Footnote 19.

²⁸ It can be seen in the appendix 3 that a regression with REs was also conducted, leading to very similar results (same coefficients).

²⁹ As it is explained in 8.3, Model 3 includes interaction terms to perform statistical comparison with The Netherlands. However, in this case, the test has been performed only taking China into consideration. For details, see Appendix 3.

7.3 Reliability and Validity of the Analysis

Reliability

The definition of Reliability adopted in this thesis refers to the extent to which the analysis procedures or techniques of data collection will yield consistent findings (Saunders, Lewis & Thornhill, 2009). In order to be able to assess and evaluate such reliability, in accordance with what suggested by Easterby-Smith et al. (2012), three questions need to be considered; (1) are the measures going to yield the same results on other occasions? (2) are similar observations going to be obtained by a different observer? and (3) is the way that sense was made from the raw data transparent?

Due to the fact that all of the variables within the quantitative analysis are not arbitrary and that all of the data collected in this thesis is secondary, different observers would obtain similar observations, and the same results would be therefore found. Few words need to be spared in relation to the variables INS, AW and PLINK. In fact, as mentioned in different parts of this thesis, the construction of such variables is based on a qualitative assessment of quantitative secondary data. Thus, because of the authors' arbitrary logic behind the choices of such qualitative assessment (see appendixes 4 and 5) a different evaluation conducted by another observer may lead to different index or wage values, therefore to different results. However, in order to tackle such problem and to provide as much transparency as possible, all the data choice as well as the methods are described in this thesis (either in the text or appendix).

Validity

Validity refers to whether the research findings are actually about what they really seem to be about (Saunders et al., 2009). In this sense, the causal relationship in the regression which is proposed in this thesis is observed and discussed carefully. Because the overall level of Chinese foreign direct investment in Latin America, although steadily increasing through the years, remains still relatively low (ECLAC, 2017), the authors do not consider causal ambiguity to represent a problem for the underlying research. In fact, it is highly unlikely for such FDI to have a significant impact on the GDP of the host country.

Also, because all the independent variables used in the regression analysis are based on proxies aiming at best reflecting the underlying variables that could not be observed, it needs to be mentioned how the use of different proxies might lead to different findings. Moreover, although the necessary checking through both prior literature and specific statistic tests, the resulting relationships which emerge from the regression could to some extent be influenced by factors which are not included in the model, reflecting what is referred to as the omitted variable bias; thus, the explanatory power of the model may be weakened.

Moreover, additional validity concerns regarding the two different models used in the analysis need to be discussed. In fact, Model 1 tests hypotheses which are considered to be as the most commonly used within the existing general FDI theory; therefore, the chances for such model to be biased due to omitted variables or any other possible specification error are rather low, providing the relative results to be highly valid. However, in considering Model 2, the variables considering the social economic and political dimensions of linkages with the host country are integrated. Although the aim of the authors is to test whether such particular variables have a significant impact on the analysis, this inclusion may, to some extent, imply specification biases. Therefore, although the authors take statistical precautions to prevent and correct for this problem (see 7.2.), the explanatory power of the model could be weakened.

8. Results of the Regression Analysis

In this Chapter, the results of the statistical analysis carried out by this thesis are presented. As previously mentioned, three different model have been adopted to perform different regressions. This Chapter is thus structured as follow for the first two models; first, the results and the related discussion on the main findings is described in 8.1 and the same approach is followed in 8.2 for Model 2. Then, an introductory section sets the ground for the presentation and discussion of the results of Model 3 in 8.3. In order to provide a clear overview of the process, both at the end of section 8.2 (comparing the first two models) and 8.3, short summaries are included.

8.1 Model 1 Regression Results

This section presents the regression results of the final specification of Model 1 which are reported in Table 9. As mentioned in 7.2.1, a few of the initial variables have been dropped; however, host market characteristics are still being accounted for through GDP and GDP growth to capture the market-seeking motive. Although the open market indices investment freedom and financial freedom were removed, host market openness effects are still being captured through the trade freedom index and trade openness proxy. The other variables remain and will be looked at in depth over the course of this Chapter.

Before describing and analyzing the empirical results, the authors present general statistical information of the regression data. The general information consists of descriptive statistics, correlation matrix³⁰ and the results of the variance inflation factor (VIF) test. The authors chose to include the aforementioned data to provide the reader with a comprehensive overview and better explanation of the regression analysis. Furthermore, tables 7 and 8 show that there are no general problems with the data.

³⁰ See Appendix 1 for the Correlation Matrix.

Table 5 Descriptive Statistics Model 1

Variable	Obs	Mean	Std. Dev.	Min	Max
OFDI	156	6.06e+07	1.69e+08	-1.78e+08	1.54e+09
GDP	232	2.37e+11	4.63e+11	5.32e+09	2.61e+12
GDPG	233	4.267919	3.288903	-7.7553	18.28661
PS	234	-.334575	.6393923	-2.3857	.9899
INS	234	-.2018858	.5916966	-1.50374	1.364965
AW	222	4748.554	3015.293	979.1758	13565.44
TGDP	232	68.21322	28.7982	22.10595	157.0687
TF	234	74.49444	8.358964	44.4	88
NR	231	28.24743	28.30345	.4213737	98.80975
EXP	232	11.31465	6.285832	1.170175	34.21847

As displayed, the number of observations is similar for independent variables whereas the dependent variable has fewer observations due to scarcity of data. The mean value of Chinese net FDI flows per country and year into Latin America numbers 144.65 million USD. As it can be seen, net FDI flows range from 177.76 million USD of inflows back into China to 1,541.76 million USD of outflows into Latin America. Within the timeframe of the data collection, Panama was subject to the largest divestment while Venezuela received the largest investment.

In terms of market size, the mean yearly GDP numbers around 237bn USD. Nicaragua had the lowest GDP out of the whole sample in 2003 and Brazil achieved the highest GDP in 2011. Regarding market growth, the mean yearly GDPG numbers 4.27%. Brazil achieved the largest GDP growth (18.29%) in 2004, and at the same time had the largest GDP decline in 2003 with -7.76%. The first political risk measure, political stability, has a mean value of -.3346 and ranges from -2.3857 to .9899. The lowest rating can be assigned to Colombia in 2003, while Uruguay consecutively secured the highest score in 2014 and 2015. The second political risk measure, INS, has a mean of -.20189. Chile achieved the highest measure in 2012 (1.365) and Venezuela received the lowest rating in 2012 (-1.50374). Average yearly wages range from a minimum of 979 USD in Nicaragua to a maximum of 13,565 USD in Chile. The mean average yearly wage within the sample is 4,748 USD.

Openness, proxied through the ratio of trade to GDP (TGDP), has a mean of 68.21%. The minimum TGDP ratio (22.11%) is related to Brazil in 2009, while Panama scored the highest (157.07%) in 2008. The second openness measure, trade freedom, has a mean value of 74.49. Chile consecutively scored the lowest value with a measure of 44.4 in 2010 and 2011 whereas Peru scored highest with a measure of 87 in 2014. The natural resource measure has a mean of 28.25%. Paraguay received the lowest score in 2003, with only .42% of merchandise exports being ores or minerals. On the other hand, Venezuela achieved the highest score in this category in 2012, when 98.81% of total merchandise exports were related to ore or mineral exports. Finally, trade intensity proxied through imports of Chinese products over total host country merchandise imports have a mean score of 11.32%. Honduras imported the least from China in 2003 with a ratio of 1.17%. At the same time, Paraguay relatively imported the most from China in 2010 with a ratio of 34.22%.

Table 7 VIF

Variable	VIF	1/VIF
INS	3.36	0.297592
lnGDP	3.26	0.306871
lnAW	3.23	0.309168
PS	2.59	0.386172
TF	2.29	0.436318
TGDP	2.28	0.439176
IMP	1.63	0.614524
NR	1.47	0.679186
GDPG	1.13	0.884064
Mean VIF	2.36	

As mentioned before, the correlation matrix of the regression displayed in Table 7 shows that there is no case of severe multicollinearity. Moreover, the variance inflation factor test results further confirm that there are no problems with the data as all variables score significantly lower than 10. After briefly describing the data and providing an overview of the sample, the focus will now turn towards presenting the regression results.

8.1.1 Regression Results

The regression results of Model 1 are illustrated in Table 9. As mentioned in Chapter 7, the authors chose to run four regressions. Both Random Effects and pooled OLS are being shown to illustrate that results are very similar although tests slightly favour the Random Effects Model. Although, elaborations on all the regressions are further presented, because of similarity in the results obtained, the authors concluded that identified levels of autocorrelation do not play a crucial role. The authors will therefore focus their discussion on the output of regressions (2) - (4) to ensure comparability with later parts.

For the entire period, analyzed with (1) and (2), a number of 139 observations are available. This number is less than the total OFDI observations due to missing data for some of the independent variables for some of the countries and years. The R squared shows that model (1) explains up to .5951 while model (2) explains up to .5853 of the variance of the data around its mean. Model (3) has 48 observations and model (4) has 91 observations. In this case, the R squared explains up to .4603 of the variance of the data around its mean for model (3) and .5531 for model (4). All statistically significant coefficients are marked in bold, standard errors are shown in parentheses.

Table 8 Regression Results Model 1

	<i>RE (1) 2003-2015</i>	<i>POLS (2) 2003-2015</i>	<i>POLS (3)2003-2007</i>	<i>POLS (4)2003-2007</i>
Variable	Coeff.	Coeff.	Coeff.	Coeff.
lnGDP	.9662653	.9430866	1.05665	.873851
(H1a)	(.2030148) ***	(.1577953) ***	(.3331396)**	(.1777439)***
GDPG	-.0273944	-.0243376	-.0079346	.0015108
(H1c)	(.0418339)	(.0458467)	(.0494725)	(.070896)
PS	1.337064	1.33312	1.039462	1.261787
(H2a)	(.4037344) ***	(.3049168) ***	(.7092002)	(.24524)***
INS	-2.038107	-2.019325	-1.716027	-1.769134
(H2b)	(.5625969) ***	(.3536964) ***	(.6901427)**	(.5430745)
lnAW	-.3650311	.352182	-.3544369	.3919026
(H3)	(.4086967)	(.297245)	(.7342493)	(.4941428)
TGDP	.0060621	.0050575	.0239784	-.0006103
(H4a)	(.0083626)	(.0080328)	(.0144798)	(.0094614)
TF	.0123032	.009761	-.0172623	-.0177483
(H4b)	(.0395924)	(.0282338)	(.062327)	(.0382026)
NR	.0266707	.0259836	.0191539	.0270034
(H5)	(.0070384)***	(.0046417)***	(.0090472)**	(.0065365)***
IMP	.1299741	.1301453	.2037618	.0961163
(H6)	(.0537664)**	(.0383765) ***	(.0881559)**	(.0429927)**
_cons	-15.46282	-14.49384	-11.52526	-10.05468
	(7.257391)	(5.123647)	(8.889482)	(6.969823)

<i>N</i>	139	139	48	91
<i>R</i> ²	0.5851	0.5853	0.4603	0.5531
<i>F-Test</i>	(0.0000)	(0.0000)	(0.0025)	(0.0000)
<i>Chi</i> ²	(0.0000)			

Notes: Robust standard errors are in parentheses. *p<0.1, **p<0.05, ***p<0.01

The data show that absolute host market size is statistically relevant for each of the regressions as the coefficient is positively significant at the 1% level for models (1), (2) and (4) and at the 5% level for model (3). Overall, everything else held constant, a 1% increase of the host market GDP results in an increase of Chinese FDI by approximately 0.97% for (1) and 0.94% for (2). The effect has become slightly weaker over the years, as it can be seen when looking at the coefficients and confidence levels for (3) and (4). Host market growth, proxied through GDP growth, does not achieve statistically significant results in any of the regressions.

Political risk certainly plays a role as both indicators show statistically significant coefficients at the 1% level for the models (1) and (2). Precisely, an increase in 1 unit of the PS index results in an increase of approximately 1.34% for (1) and 1.33% (2) of Chinese FDI into that market, *ceteris paribus*. Similarly, an increase in 1 unit of the INS index results in a decrease of roughly 2.04% for (1) and 1.02% for (2) of Chinese FDI into that market, holding every other variable constant. Interestingly, political stability only becomes relevant in model (4) whereas it does not achieve statistical significance in model (3). This situation is reverse for institutional quality, although institutional quality plays a role for the period of 2003 - 2007, it does not achieve statistical significance for 2008- 2015.

Average wages, and therefore labor cost, do not show statistically significant results within any of the regressions. Also, no statistical support can be found for the market openness hypotheses within the four regressions. Neither trade openness (TGDP) nor trade freedom (TF) achieve statistically significant coefficients.

Natural resources can result to be statistically relevant for each of the models. Models (1) and (2) show a positive relationship between natural resources and Chinese OFDI which is statistically significant at the 1% level. In particular, an increase of 1% of the host country share of minerals and

ores over total merchandise exports leads to an increase of Chinese FDI into the country of approximately 0.03%, *ceteris paribus*. This effect becomes stronger over time and is statistically significant at the 5% level for (3) and at the 1% level for (4). Finally, statistically significant support is found for the variable related to trade relations in all regressions. Holding every other variable constant, a 1% increase in Chinese product imports over total host country product imports leads to an approximate increase of 0.13% for (1) and (2) increase of Chinese FDI into that host market. The effect gets weaker over the years and both (3) and (4) generate coefficients which are significant at the 5% level.

8.1.2 Discussion of the Findings

The results for models (1) - (4) show that the market-seeking hypothesis can be confirmed for Chinese FDI in Latin America. In fact, Chinese investors are attracted to large domestic markets regardless of their growth prospects as GDP continuously achieves statistical support whereas GDPG can be discarded. H1a is therefore supported and H1c does not have statistical support. The result underlines the Chinese strategy to carry out FDI in order to support and further expand trade, which has been highlighted in Chapter two and the OLI (OLI reference). These findings are also confirmed by the results related to IMP. Moreover, Latin America has been hit intensely by the latest global recession and private consumption declined or has barely grown since 2010 (IMF, 2015). This suggests that Chinese FDI and its' final products sold in Latin America are still mostly aimed at targeting the low-income consumers.

Although the financial crisis did not alter the importance of host market size, the slight reduction in the coefficient for (4) may indicate that the crisis has shifted the investors' focus towards different factors such as political stability, which will be elaborated on in the next paragraph. Adding onto that, the global trend of investing into developing economies due to better economic performance during the crisis could have increased competition within economically strong host markets. As a result, increased barriers to entry into countries with continuously strong GDP figures pose an alternative explanation of the change in coefficient.

The findings regarding political risk are interesting as political stability (H2a) achieves the expected positive significant effect whereas institutional quality (H2b) has a negative significant relationship with Chinese OFDI. On the one hand, Chinese investors seem to have concerns regarding risky

environments which may lead to substantial costs of doing business due to e.g. destroyed infrastructure.

Also, politically unstable environments may lead to major policy changes that directly affect the business e.g. regarding taxes or repatriation of profits. The resulting uncertainty which does not relate to institutional quality may therefore prevent Chinese investors from going into host markets with a low PS score.

On the other hand, contrary to conventional institutional theory, Chinese investors seem to be attracted to countries with poor institutions in place. This affinity towards weak institutions may stem from the fact that Chinese investors are used to such poor institutional systems themselves and know well how to maneuver in that setting. In support to this argument it needs to be mentioned how the literature has found that Chinese FDI in developing and emerging economies seems to be attracted by familiar political environment (Kolstad & Wiig, 2011).

Furthermore, the latecomer perspective suggests that countries with poor institutions provide an environment with more opportunities to invest, as western investors tend to be less present. In addition to that, Chinese foreign policy does not allow any interference with domestic affairs in other states (Alden, & Davies, 2006). This allows Chinese investors to invest in regimes where western firms are barred from doing business in, which can lead to competitive advantages. Additionally, the authors would like to note that it may be wrong to infer that Chinese investors are looking for countries with ‘weak’ institutions. In fact, the World Bank estimate is based on the perspective of investors from developed countries. Even though political systems may be perceived as poor from this perspective, investors from emerging economies may have very different perceptions. In the case of China, it needs to be stressed that investors are attracted to host markets with similar institutional quality, as highlighted by its’ rating across the institutional dimensions (World Bank, 2017).

Although both variables are relevant for the models (1) and (2) regarding the whole time-frame (2003 - 2015), the fact that political stability only becomes statistically relevant after the crisis while institutional quality loses its’ relevance after the crisis carries a few interesting implications. The change of focus illustrates that Chinese investors may have become more risk-averse in their investment decisions regarding external shocks while they do not care about the aforementioned institutional closeness as a result of the global crisis. Another explanation could be that investments

in countries with weak institutions within 2003 - 2007 turned out not yield the expected results and as a learning effect, investors have started to focus on overall political stability instead.

No statistical evidence can be found to support H3; labor cost does not constitute a major motivation for Chinese FDI into Latin America. One reason for this may be that average wages do not capture potential effects of minimum wages intended for efficiency gains. Although labor cost has risen dramatically over the past decade, China still lies within the mid-range of Asian countries (China Labour Bulletin, 2017). It should therefore still have an ample supply of cheap labour, and efficiency reasons related to labor cost as motivations may be secondary. The fact that the rise of domestic wage levels is not reflected in average wage becoming statistically significant for model (4) further stresses that Chinese investors do not seem to prioritize wages when carrying out investments in Latin America.

The fact that none of the openness measures (H4a & H4b) achieve significant results may relate to the fact that high openness scores incentivize any potential investor which may thus increase competition in host markets that score well. This creates barriers to entry that may prevent Chinese investors from investing. Therefore, market openness related to investment policy or trade protection does not seem to play a major role for Chinese investors. Another reason may be that Chinese investors emphasize relationships without taking into account generic measures such as TGDP or TF. This will further be elaborated on below when analyzing the support to hypothesis H6.

The results so far obtained highlight how Chinese investors are attracted to countries with high exports of natural resources (H5); moreover, the relationship has intensified over time. Therefore, the resource-seeking motive can be confirmed as the data suggests that Chinese FDI is attracted to countries with abundant reserves of natural resources. As mentioned in Chapters 2, China has scarce natural resources which are needed for production of exported goods (Ramasamy et al., 2012). Since the Chinese economy has grown considerably from \$1.66 trillion in 2003 to \$11.065 trillion in 2015 (World Bank, 2017), it can be assumed that demand for natural resources of Chinese manufacturers has greatly increased which is supported by results of (3) and (4).

This is in line with the implications of the Kuznets curve on the economic levels of development and market imperfections. According to this concept, countries at the developed stage are mostly characterized by service sector based economies and low levels of growth whereas countries with

emerging economies are characterized by high dependence on the industrial sector and high levels of growth. With this in mind, in order to maintain high levels of growth, developing countries hold higher needs of raw materials and natural resources. However, this does not seem to support the shift towards investing into the service industry, which has been highlighted in Chapter 2. Furthermore, given the discussion regarding the role of institutions, as suggested by some part of the literature (e.g. Buckley et al, 2007), it needs to be considered how weak institutions are often in place in regions with abundance of natural resources (e.g. Venezuela in Latin America). However, an interaction term between these two variables which could potentially support the discussion is left for further research.

Existing trade relations (H6) are statistically relevant, though the effect becomes weaker over time. These finding suggests that Chinese investors may engage in Tariff-Jumping FDI to avoid costs of trade protection. The same goes for trade effects, which suggests that variable costs can substantially be lowered through substituting exports with affiliate production and sales (Buckley & Casson, 1981). While fixed costs may be higher, they only play a role up until a certain scale. Blonigen (2002) finds that this type of FDI only applies to investors from developed countries as FDI requires substantial costs which small firms may not be able to finance or find unprofitable. However, the case of China and Latin America is different, as 81% of Chinese investors in that region are SOEs who are provided with adequate networks and resources as highlighted in Chapter 2.

Furthermore, although simply through trade, Chinese corporations may have established a network of relationships and connections within company or government representatives in the host market. This level of connectedness may create some familiarity and trust which therefore makes it easier and more likely to take the next step and decide to carry out foreign direct investments.

Getting closer to customers may be another reason to undertake FDI. The decline of the impact of existing trade on FDI may be related to the simple fact that some of the Chinese MNCs that possess the resources for FDI may already have carried out their investments within the time period of (3). Alternatively, tariffs may have been reduced over time which then again may have led to a weaker effect. Finally, this change from (3) to (4) can also be related to effects of the global crisis within host markets. Although not as intense as developed countries, developing countries were still affected by the crisis. The economic shock may have led to a decrease in the host market demand for Chinese products and may indicate that growth in demand has declined.

To summarize, all regressions show that both market-seeking and resource seeking FDI are applicable to the case of China and do not change due to the global crisis. Furthermore, though initially favoring similar institutions, after the crisis, Chinese corporations go for stable political environments and do not pay attention to institutional quality. Finally, existing trade relations positively influence investment decisions. Neither labor cost nor openness measures within the respective host country influence potential foreign direct investments. After introducing the results from Model 2, An extended comparison of the output of Models 1 and 2 will be carried out within the following section.

8.2 Model 2 Regression Results

In this section, the regression results of Model 2 are presented. Following the same structure adopted for 8.1, some statistical information regarding the data are displayed at first; then, the analysis of the empirical results is presented and lastly, the discussion of the findings and the implications for the underlying research is presented. Moreover, the approach that the authors will follow in this section is intended to minimize (to the possible extent) discussing on information already presented in 8.1. Thus, the attention will revolve upon new insights introduced by Model 2.

The Descriptive Statistics shown in Table 10, the correlation matrix shown in Table 11 and the results of the variance inflation factor (VIF) test shown in Table 12 are intended to provide a better explanation of the regression analysis conducted. Without repeating what has been said regarding the variables also included in Model 1, few words are to be spared for the new ones introduced in Model 2.

Table 9 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
OFDI	156	6.06e+07	1.69e+08	-1.78e+08	1.54e+09
GDP	232	2.37e+11	4.63e+11	5.32e+09	2.61e+12
GDPG	233	4.267919	3.288903	-7.7553	18.28661
PS	234	-.334575	.6393923	-2.3857	.9899
INS	234	-.2018858	.5916966	-1.50374	1.364965
AW	222	4748.554	3015.293	979.1758	13565.44
TGDP	232	68.21322	28.7982	22.10595	157.0687
TF	234	74.49444	8.358964	44.4	88
NR	231	28.24743	28.30345	.4213737	98.80975
INP	232	11.31465	6.285832	1.170175	34.21847
PLINK	234	36.15355	19.66828	12.75862	68.55172
HLINK	195	2.176331	1.173987	.3051084	4.499378
CP	234	.2692308	.4445109	0	1

The number of observations of the dependent variable is less compared to the independent variables. The 3 new variables introduced, PLINK, HLINK and CP range between 234 (max value in the table) and 195. As shown, the index of political closeness ranges between a minimum score of 12.76 - for Nicaragua - to a maximum of 68.55 - for Chile, with the mean being 36.15. The cultural distance index based on the scores provided from Hofstede HLINK varies from a value of

0.76 to 5.10, with a mean of 0.47. In this case, the lowest score stands for Honduras, while the highest one refers to Costa Rica.

The correlation matrix presented in Table 11 does not highlight any particular problem with the variables. This is further confirmed by the Variance Inflation Factor (VIF) test, which indicates no severe multicollinearity issue to be present. The VIF test is displayed in Table 12.

Table 10

Variable	VIF	1/VIF
INS	8.04	0.124377
TF	5.65	0.176948
lnAW	4.69	0.213329
PLINK	4.43	0.225913
PS	4.07	0.245776
HLINK	3.92	0.255033
lnGDP	3.76	0.265660
TGDP	3.76	0.265775
NR	3.59	0.278573
CP	2.08	0.481377
IMP	1.53	0.654549
GDPG	1.26	0.796707
Mean VIF	3.90	

After this brief data description for Model 2, the next session will present the results obtained.

8.2.1 Regression Results

The results obtained from the pooled OLS regressions are displayed in Table 13. For model (1), the total observations are 119, a number which is lower than the one for Model 1, as a consequence of the inclusion of the three linkages variables, in combination with scarcity of data. At the same time, the R squared shows the regression explains up to 0.6618 of the variability of the response data around its mean. For the pooled OLS regressions ran for (2) and (3), the number of observations is inevitably lower (45 for the former and 74 for the latter). The R squared values are respectively 0.5458 and 0.6596. Additionally, the F-Tests presented no particular issue with the models.

Table 11 Regression Results Model 2

	<i>POLS</i> 2003-2015 (1)	<i>POLS</i> 2003-2007 (2)	<i>POLS</i> 2008-2015 (3)
Variable	Coeff.	Coeff.	Coeff.
lnGDP (H1a)	.6571441 (.2161264) **	1.006098 (.5368737) *	.608836 (.216342) ***
GDPG (H1c)	.0017856 (.0431897)	-.0321033 .041125	.0273541 (.076681)
PS (H2b)	1.245632 (.3558141) **	.7467371 (.8504479)	1.162602 (.3023816) ***
INS (H2a)	-1.783403 (.4367616) ***	-1.072201 (.8666056)	-1.851039 (.5410476) **
lnAW (H3)	.2287014 (.4433907)	-.6877473 (1.235231)	-.0092234 (.8507506)
TGDP (H4a)	-.0051425 (.010348)	.0027024 (.0198099)	-.0025669 (.0108553)

TF	.0070671	-.0009465	-.0416365
(H4b)	(.0317632)	(.0593127)	(.0410376)
NR	.0176371	.0273343	.0082416
(H5)	(.0062135) **	(.016875)	(.0091832)
IMP	.2352576	.2645311	.2320323
(H6)	(.0472329) ***	(.1111991) **	(.0601814) ***
PLINK	-.0092085	-.069187	.0378887
(H7)	(.0152019)	(.0305568) **	(.0243791)
HLINK	-.389553	.5364716	-.5194454
(H8a)	(.3006892)	(.5646353)	(.307931) *
CP	-.0602063	-.4315342	.6667609
(H8b)	(.6029778)	(1.100848)	(.8755859)
_cons	-5.04797	-5.756622	.2292359
	(7.28671)	(11.62289)	(9.379979)
<hr/>			
<i>N</i>	119	45	74
<i>R</i> ²	0.6618	0.5458	0.6596
<i>F-Test</i>	0.0000	0.0000	0.0000

*p<0.1, **p<0.05, ***p<0.01. Robust Standard Errors in parentheses

As displayed in the table, the positive influence of Absolute Market Size (lnGDP) on Chinese FDI is found to be significant at a 5% level of confidence. In particular, a 1% rise of such variable determines an increase of Chinese FDI by roughly 0.66%, *ceteris paribus*. Such positive impact is stronger (slightly more than 1%) in the time period up until 2007, although significant at the 10% level; for the regression considering the period after 2008 (3), its magnitude is very similar to the one in (1), at a 5% level of significance.

In (1), Political Stability (PS) positively relates to Chinese foreign investments at a 5% level of significance. In particular, holding every other variable constant, a unit increase of the political stability index determines an increase of Chinese FDI by approximately 1.25%. Considering the

two different time frames analyzed by (2) and (3), evidence of a significant positive impact of PS is found only in (3), with a similar magnitude as in (1), though at a 1% level of confidence. The variable INS is found to be negatively related to investment from Chinese firms, at a 1% level of significance. More precisely, a unit increase of the index measuring the level of institutions in the host country leads to a decrease of approximately 1.78% of FDI from China, *ceteris paribus*. In (2), institutional quality is not significant, while in (3) evidence of similar effects as in (1) are found (coefficient is approximately -1.8), at a 5% level of confidence.

The amount of Natural Resources (NR) in the host country is found to positively influence Chinese FDI at a 5% level of confidence. More precisely, a 1% increase of the ratio of exported ores, minerals and fuels over total merchandise exports leads to rise of Chinese FDI of approximately 0.18%, holding every other variable constant. At the same time, no evidence of significance is found in models (2) and (3). INP is also found to have a positive impact on Chinese foreign investment in all three regressions. In (1), with a 1% increment of Chinese imports over total merchandise imports of the host country, Chinese FDI increases by approximately 0.24% *ceteris paribus*. In models (2) and (3) such positive impact is also present in similar magnitude (coefficients are indeed 0.26 and 0.23 respectively).

PLINK is found to be significant only in (2) with a negative impact on FDI from China at a 5% level of significance. In particular, in the model in question, a unit increase of the political closeness index induces a reduction of FDI from China by approximately 0.07% *ceteris paribus*. Similarly, HLINK is found to be significant only in model (3) at a 10% level of confidence. Precisely, a unit increase in the index of cultural distance negatively affect FDI from China by 0.52%. Lastly, market growth (GDGP), labor cost (lnAW), cultural proximity (CP) and the two variables measuring the market openness of the host country (TGDP and TF) are found to be not significant in any of the regressions.

8.2.2. Discussion

From the results of 3 pooled OLS regressions above presented, bearing in mind the results for Model 1, several considerations in relation to the underlying hypotheses are to be made. Once more, it is important to stress the aim of the authors, in developing the second model, to investigate on the possible impact of social and political linkages on Chinese foreign investment decisions, by introducing three additional variables. Beginning by briefly examining the similarities and differences in the findings for the determinants common for both models, the attention will then move onto the discussion of the main findings related to said linkages.

Findings from the variables common in both Models

Considering the host market size hypothesis (H1), the regression results from the three pooled OLS only support the relevance of the absolute market size (H1a), rejecting (H1c) of market growth. Similarly to Model 1, Chinese FDI therefore appears to be attracted to host country with large domestic markets, despite of their growth overtime. At the same time, it appears that the financial crisis of 2007-2008 did not alter this trend which was already existing in the previous years. Once more, these findings are in line with the theories in support of market seeking motives (OLI, etc), as presented in 8.1.

As for the institutional environment and the political stability of the host country, the results of Model 2 confirm what Model 1 has previously highlighted. Remarking the discussion proposed in the section related to Model 1 in 8.1.2, theories indicating that Chinese investors are affected differently - in relation to investors from developed economies - from the perception of the quality of institutions in the host country are confirmed in Model 2. However, the risk of military conflict and terrorist attacks in Latin American countries remains a major concern for Chinese firms' investment decisions. Lastly, motives of international competition in the host country presented in 8.1 are found to be relevant also in Model 2.

However, when looking at the two different time periods analyzed in (2) and (3) it is interesting to notice how both such motives only became important to Chinese investors after the global crisis, a slight change from the results of Model 1 (where INS was only significant before the crisis). This difference could imply that the impact of significant variables introduced only in Model 2 (i.e. the linkages variables) was overseen by the regressions in Model 1. In agreement with this, it appears

that there has been a significant change in the foreign investment behavior of Chinese enterprises, and that this could at least partly be due to the implications of the Global Financial Crisis after which Chinese FDI towards Latin America rose drastically.

These findings may imply the increase in competition in developing host market brought by the crisis, as firms from developed economies tried to direct large parts of their investments towards developing economies which continue to present growing GDP figures such as Brazil. Thus, because of the surge of inward FDI into Latin America, Chinese investors have found it easier to access countries less desired by developed economies, instead of pursuing the ones attracting the most global investment, due to their high corruption and low infrastructure systems. At the same time, the concerns for the political stability could have risen as a consequence of investing in countries with poor institutions, as argued in 8.1 for Model 1.

The presence of natural resources and established trade are confirmed to be important factors for the investment location choice of Chinese firms. These findings support hypothesis H5 and therefore the importance of natural resources, as well as hypothesis H6 regarding Chinese FDI as a support and/or consequence of existing trade with the host market. However, when looking at models (2) and (3), natural resources are not found to be significant. These findings are different from Model 1, perhaps indicating once more the role played by the omitted linkages variables. At the same time, the authors argue that such results indicate how through the years, Chinese firms in Latin America may have shifted their investments towards the service-based sector of the economy, as it has been mentioned in Chapter 2. Lastly, Hypothesis H3 and H4 are once more rejected in Model 2, remarking how neither wage levels nor the openness of Latin American economies appears to have an influence on Chinese investors.

Findings from the Linkages variables

Shifting now the attention on the main findings of Model 2, the results of the social and the political linkages variables in the regression are discussed in this section. Both linkage dimensions appear not to be of relevance for Chinese investment decisions in Latin America in (1). Thus, hypotheses H7 and H8 are both rejected. A different scenario is found when looking at the different sub models (2) and (3). In particular, H7 finds support in the period between 2003 and 2007, while H8a is supported only after 2007.

Considering the findings regarding of PLINK in (1), the authors argue that the non-significance of such variable could be explained by following a similar argumentation proposed for INS. Indeed, countries which China has strong political ties with could at the same time be the one presenting high levels of market competition, therefore enhancing entry barriers to Chinese FDI. As a support to this argument, the three countries which scored as politically closest to China (Peru, Chile and Bolivia) result to be among the Latin American economies with the highest FDI income in proportion to FDI stock (ECLAC, 2015); thus, presenting high levels of competition. This may prevent PLINK to become significant, or even lead to a negative relationship, as it did in regression (2).

Considering now the results coming from the cultural linkages variables, neither of the two hypotheses H8a nor H8b are to be supported considering model (1). These findings challenge much of the latest literature on Chinese foreign investment largely relying on the Latecomer Theory. In fact, Chinese investors do not seem to be particularly affected by the cultural distance that exists with Latin America, nor do they seem to be attracted towards countries with consistent number of Chinese communities within said region.

In the case of the cultural proximity variable (CP), one explanation of such non-significance could be the significantly low presence of Chinese communities in Latin American countries, which therefore do not play a relevant role in attracting investments. In other words, the beneficial effects of *Guanxi* for Chinese investors may be not particularly present in the region in question, due to the limited scope of social and personal relations established by local Chinese communities.

Additionally, another potential explanation for its insignificance in the regression analysis can be derived by an underlying methodological limitation stressed in Chapters 6 and 9³¹.

When considering the periods before and after the crisis independently though, hypothesis H8a is supported in (3), with the expected sign. This result may once more be related to the particular rise of Chinese FDI in Latin America after 2008. It indeed appears that when large amounts of FDI started to flow in the host countries in question, cultural distance began to play a role for Chinese investors. This may be due to a larger involvement of new Chinese firms in foreign investment activity, for whom the psychic distance would have played a significant role in the location decision. Moreover, the uncertainty raised by the global financial crisis could have enhanced risk-averseness in Chinese investors, therefore directing their investments into economies perceived as less distant. However, it is important to remark how such hypotheses developed in Chapter six find only limited support in the presented regressions.

8.2.3 Summary and Comparison with Model 1

The findings from the three regressions for Model 2 afore presented shed new light on the determinants of Chinese FDI flows to Latin America. Some differences in the results of the variables common to both models have been identified and discussed, especially when considered in relation to the implications of the global financial crisis introduced with the two sub-models (2) and (3). Such statistical differences suggest that Model 1 may have overseen the impact that the three new linkage variables in Model 2 have on Chinese foreign investments.

With this regard, the findings so far discussed could imply that, apart from the institutional aspect previously discussed, FDI from China in such region is still largely driven by traditional FDI motives such as market and resource seeking. The latecomer theories and the importance of social and political linkages to overcome the liability of foreignness, which the literature has indicated to be driving Chinese FDI in other geographical regions (i.e. Asia, Europe) are found to have little statistical support in this research.

At the same time, the effects of the financial crisis highlighted in Model 2 have presented different findings between the models. It can in fact be noted how the effects of the increased competition in

³¹ I.e. statistics on Chinese tourism in Latin America may fail to correctly proxy for Chinese local communities.

Latin American countries after 2007 appear to be more evident in Model 2. Such competition has indeed directed Chinese firms towards countries with lower levels of institutional systems, thus less attractive for FDI from developed economies. As a possible consequence, the concerns of political stability increased, perhaps as a result of investing in highly corrupted host countries with poor infrastructures. However, as for Model 1, an interaction of these variables has not been tested and is therefore suggested for further research.

Overall, considering the results of both Model 1 and Model 2, within the period considered from 2003 to 2015, Model 2 confirms Chinese FDI to be directed towards host economies within said region that present a large market size (lnGDP), a safe and conflict-free political environment (PS), similar institutions (INS), abundant natural resources (NR) and have established trade linkages with China (EXP). Moreover, neither cultural nor political linkages seem to be of particular relevance, perhaps suggesting the existence of high barriers to Chinese investments (e.g. competition) in the host countries considered.

8.3 Is China different? A comparison with The Netherlands

This remaining part of Chapter 8 aims to answer the third research question presented in the introduction of this thesis. In particular, in the next sections it is intended to investigate whether the motives that so far have been identified as significant drivers of Chinese FDI to Latin America are different from the ones that attract investment from developing economies. To do so, the authors decided to compare the behavior of foreign investments from China with ones coming from The Netherlands. For this purpose, a comparative model - Model 3 - is developed to test the potential differences existing between China and The Netherlands.

The choice of The Netherlands as the developed economy representative to compare with China is briefly elaborated on as follows. From the perspective of an easier access to the data, as well as a larger amount of existing literature, the best candidate could be identified as the United States. However, this scenario has been discarded by the authors and due to some conditions, which would have made the comparison with China less equal. Among them, there are the close geographical proximity with Latin America, as well as the great influence that historically the U.S. has been exercising in the whole American continent. For similar reasons, Spain and Portugal have also been turned down.

The Netherlands thus present itself as a valid candidate to this regression analysis. In fact, it does not seem to hold at glance any particular factor which could in some way deviate the explanatory power of the host country characteristics which constitute the independent variables in this thesis³². At the same time, the Dutch involvement in investment activity in Latin America over the past years reinforces its position among the main sources of FDI from developed economies in the region (ECLAC, 2015).

8.3.1 Model 3

As previously stressed, the aim of this model is to test whether motivations of Chinese investors differ from Dutch ones. In order to elaborate on this issue, the authors constructed a dummy variable in order to distinguish between China and The Netherlands. To compare the results for the two different FDI outflows, the mentioned dummy assumes the value equal to 1 when referring to The Netherlands and 0 for China³³. It is in fact necessary to construct interaction terms which capture the difference between FDI from the two countries, for a given variable. Therefore, considering Model 2 as a base, the statistical equation underlying Model 3 includes such interaction terms with the Country Dummy CD for those variables which have proven to be significant for China³⁴.

Once again, these refer to the Absolute Market size of the host country (lnGDP), its Political Stability (PS) and quality of Institutions (INS), the bulk of Natural Resources available (NR) and the imports from the home country (EXP). Also, some evidence was found in support of the linkages variables, and therefore these will be also taken into account. Thus, following these argumentation, the equation for Model 3 is derived:

³² The Netherlands indeed possesses several overseas territories in South America and the Caribbean; however, they have not been taken into account within the selection of the host countries.

³³ To briefly explain, any output that states the proxy without interaction (e.g. lnGDP) relates to the effects for China, whereas interactions (e.g. lnGDP*CD) relate to the difference of the China-effect from the perspective of a Dutch investor.

³⁴ See Appendix 3 for the regression of Chinese FDI within the new specified time frame.

Equation (3)

$$\ln\text{OFDI} = \alpha + \beta_1 \ln\text{GDP} + \beta_2(\text{CD} * \ln\text{GDP}) + \beta_3 \text{GDPG} + \beta_4 \text{PS} + \beta_5(\text{CD} * \text{PS}) - \beta_6 \text{INS} + \beta_7(\text{CD} * \text{INS}) - \beta_8 \ln\text{AW} + \beta_9 \text{TGDP} + \beta_{10} \text{TF} + \beta_{11} \text{NR} + \beta_{12}(\text{CH} * \text{NR}) + \beta_{13} \text{IMP} + \beta_{14}(\text{CD} * \text{IMP}) + \beta_{15} \text{PLINK} + \beta_{16}(\text{CD} * \text{PLINK}) - \beta_{17} \text{HLINK} + \beta_{18}(\text{CD} * \text{HLINK}) + \beta_{19} \text{CP} + \beta_{20}(\text{CD} * \text{CP}) + \beta_{21} \text{CD} + \varepsilon_{it}$$

Lastly, as it is further displayed in 8.3, and as part of the data limitations presented in Chapter 9, it needs to be taken into account that the data of Dutch FDI towards Latin American countries present many more cases of divestment (negative net FDI flows) compared to Chinese FDI.

8.3.2 Results

The results from the three pooled OLS regressions of Model 3 are displayed in Table 14. The total number of observations, considering data for both China and The Netherlands, are 157 for (1), 88 for (2) and 69 for (3). The R squared for (1) indicates that the regression explains up to 0.7338 of the variability of the response data around its mean. The R squared for (2) and (3) are respectively 0.7338 and 0.8819. However, with regards to the implications of the global crisis analyzed with the remaining sub-models, the data limitation constrains highlighted in Chapter 7 may undermine the results presented by model (3).

As it can be noted, when considering the time frame between 2003 and 2012, the differences between Chinese and Dutch FDI for the variables PS, INS and NR are statistically significant, while the ones for $\ln\text{GDP}$ and INP are not. Also, with regards to the three linkages variables, the difference for the cultural distance variable HLINK is significant, while both Cultural Proximity CP and Political Linkages PLINK are not³⁵. Therefore, the authors will focus their attention on the significant differences only.

³⁵ This refers to only the POLS (1). Evidence of significance is indeed found in (3).

Table 14 Regression Results Model 3

	POLS (1) 2003-2012	POLS (2) 2003-2007	POLS (3) 2008-2012
	Coeff.	Coeff.	Coeff.
lnGDP	.541422 (.2805089)**	.8302305 (.3870871)**	.3193201 (.37335)
CD*lnGDP	.349947 (.2182416)	.3738163 (.2383618)	.6248388 (.4675456)
GDPG	.0199715 (.0353792)	-.0069568 (.039063)	.003735 (.0820971)
PS	1.315108 (.4192471)***	.78659 (.7870563)	1.654667 (.3157613)***
CD*PS	-1.101573 (.5800913)*	.0501086 (.8813616)	-1.614681 (1.37076)
INS	-1.230359 (.486888)**	-.4891025 (.7807193)	-1.678496 (.7420306)**
CD*INS	1.995252 (.6011066)***	1.593062 (.9370771)*	3.333201 (.885587)***
lnAW	.1127018 (.4697095)	-.3100625 (.6598287)	-.5556151 (.9606091)
TGDP	-.010741 (.0094243)	-.0038009 (.0124819)	-.0111447 (.0150261)
TF	-.0224498 (.0255073)	-.0469133 (.0266278)*	-.0844747 (.0592037)

NR	.0219968 (.007938)***	.0241446 (.0111017)**	.0093758 (.0118092)
CD*NR	-.0259333 (.0107287)**	-.0091381 (.0136288)	-.0310891 (.0158973)*
IMP	.2843406 (.0607135)***	.2919263 (.0965684)***	.3971751 (.0911241)***
CD*IMP	-.0845343 (.5215639)	-.3254383 (.5537247)	-.4375018 (.9729509)
PLINK	-.0114381 (.0180782)	-.0728145 (.025687)***	.0807705 (.0304348)**
CD*PLINK	.0213597 (.0259243)	.0514723 (.0378314)	-.0719228* (.0421105)
HLINK	-.6804713 (.4558624)	.1150531 (.6525239)	-1.154002*** (.3857108)
CD*HLINK	.9259461* (.5230282)	.2978283 (.7024831)	1.419814* (.7768756)
CP	.1896695 (.7041609)	-.4724217 (.9929318)	1.584746 (1.19285)
CD*CP	-.4068807 (.801289)	-.0266392 (1.075018)	-.4338689 (1.52059)
CD	-6.121949 (5.990915)	-6.752628 (6.543405)	-8.680677 (13.34268)
_cons	1.268956 (7.426792)	-.1137084 (8.634775)	13.50984 (10.72995)

<i>N</i>	157	88	69
<i>R</i> ²	0.7338	0.7719	0.8188
<i>F-Test</i>	0.0000	0.0000	0.0000

When considering the first of the two variables related to the institutional environment, the significant negative coefficient for PS*CD indicates that Dutch FDI are less influenced (i.e. less positively or more negatively) by the political stability in the host country compared to the Chinese counterpart. Specifically, for each unit increase of PS, Dutch FDI outflow increases by 1.1% less in respect to Chinese FDI, *ceteris paribus*; therefore, although much smaller for China, the net effect of PS on Dutch FDI appears to be still positive. From the above regression, this difference is significant at a 1% level. However, such difference is found to be not significant in both (2) and (3).

The significant coefficient for INS*CD is positive, indicating that FDI from The Netherlands is more positively (or less negatively) affected by the quality of Institutions of the host country, when compared to the foreign investment outflows from China. In particular, holding every other variable constant, a unit increase of INS implies Dutch FDI outflows to be affected by approximately 2.01 percentage points more positively than outflows from China; these results are significant at a 10% level. Considering that the negative impact of INS on Chinese FDI alone is smaller than the positive difference of Dutch FDI from the latter, the net effect of INS on Dutch FDI outflow appears to be positive and relatively large³⁶. Similar results are found in models (2) and (3) regarding the coefficient and the significance of INS*CD.

The results from the interaction term CD*NR, between the China Dummy and the Natural Resources variable, show a negative coefficient significant at a 5% level, meaning that Dutch foreign investments are less affected (i.e. less positively or more negatively) by the reserves of natural resources present in the host country. In fact, a 1% increase of the host country ratio of exported ores, mineral and fuels over the total merchandise exports affects FDI by approximately 0.03% less for Dutch investors than for their Chinese counterpart, *ceteris paribus*. Moreover, because of the negative sign and the magnitude of such difference, the net effect of NR on Dutch

³⁶ Such results are confirmed by the pooled OLS regression of Model 2 ran exclusively for the Netherlands; see Appendix 3.

FDI outflows appear to be relatively small and negative³⁷. When considering the sub-models, a similar impact in terms of magnitude and sign is found, although it is only significant in (3), at a 10% level.

When considering the results from PLINK, the only model which found the difference between China and The Netherlands to be significant is (3), at a 10% level. Whereas for model (1), the only linkage variable which difference is statistically significant (at a 10% level) is HLINK. In fact, Dutch FDI is more positively (or less negatively) affected by such variable. Precisely, for a rise of the Cultural Distance index by one unit, Dutch FDI increases by approximately 0.93% more than Chinese FDI, holding every other variable constant. Also, due to the opposite sign and magnitude of the difference, the net effect of HLINK on Dutch FDI outflows appear to be positive³⁸. At the same time, such difference is found to be significant also for model (3) with a stronger impact and same positive sign.

8.3.3. Discussion of the findings

After having illustrated the main results of Model 3, some considerations are to be proposed in this section. Following the same approach, the discussion will focus on the interactions analyzed. Before looking at the differences, it appears that the absolute market size of the host country is a common driver of FDI for both Chinese and Dutch investors. Investors from either China and The Netherlands are attracted to Latin American countries with relatively large domestic markets. The findings of common market-seeking motives are in support of FDI theoretical concepts inherent to the OLI framework which further confirm the argumentations proposed by the authors for Chinese FDI in 8.2 and 8.1.

Lastly, when considering the two time-periods analyzed in (2) and (3), it appears that the implications of the global financial crisis did not produce a divergence in the market seeking motives aforementioned, between China and The Netherlands. Similarly to what was just presented for lnGDP, no statistical support of a difference between China and The Netherlands is found in relations to the importance of established trade with the host country (IMP). Indeed, the

³⁷ See Appendix 3 for separate regression on The Netherlands.

³⁸ See Appendix 3.

argumentation proposed in section 8.1.1 in support of the market-seeking motives appear to be a common element between the two economies. Moreover, the global crisis does not appear to have modified that behavior.

Among the most interesting findings of Model 3, the role played by the variables concerning the institutional quality in the host country is of great interest. It has indeed been confirmed that both PS and INS differently affect the flows of FDI coming from China compared to The Netherlands. In fact, while Chinese firms appear to be keen on investing in Latin American countries with poor institutions though stable political and military scenarios, Dutch firms direct their investments into host economies presenting high institutional standards, regardless of their political situation. These findings for The Netherlands are in support of general Institutional Theory for which FDI is usually attracted towards countries with high levels of institutions. At the same time, they largely differ from the ones for China previously highlighted in this thesis, further validating the discussion regarding competition in the market proposed in Chapter 8.1.

Shifting the attention towards the findings of the Natural Resource determinant, the authors propose the following reasoning. The difference between China and The Netherlands highlighted in the results could be related to the type of investment that both Dutch and Chinese enterprises carry on in the region in question; in fact, this is inevitably related to the stage of economic development of the two home countries. More precisely, this argumentation follows what the implications of the Kuznets curve on the economic levels of development and market imperfections introduced in 8.1.

On the one hand, because China is a developing economy which needs to maintain high levels of growth, its domestic firms' investments are heavily driven by the acquisition of natural resources overseas in order to meet the large demand in the domestic market. On the other hand, Dutch firms' internationalization tends to be diversified in different sectors of the host country economy, and is therefore less dependent on the acquisition natural resources; the developed economical stage of The Netherlands should imply a lower domestic need of raw materials, as well as higher environmental concerns from various domestic stakeholders. The resource seeking motives behind Chinese FDI seem in fact to represent a difference with the motives of Dutch investors. However, it appears that such difference rose after the global financial crisis, suggesting how the Dutch energy sector could have been more largely affected by financial constraints than others.

Shifting the attention onto the linkage variables, first the findings concerning the political linkages are discussed. With this regard, the output of (1) shows how close political relationships between the home and the host government do not influence the investment decisions of firms from either of the two countries. Recalling the arguments presented in 8.1 regarding high levels of competition, the non-statistical relevance for the difference with Dutch FDI could somehow imply that such barriers to entrance also apply to developed economies, to a certain extent³⁹.

Additionally, because Dutch firms benefit from a democratic political environment in the home market, their internationalization investment decisions are not expected to be influenced (at least not more than Chinese) by the bilateral diplomatic relationships of the Dutch government with Latin American countries. In addition, it needs to be stressed that, differently from The Netherlands, Chinese firms' ownership structure is dominated by SOEs. The findings of non-statistical significance of the difference for Political Linkages between the two countries are therefore not particularly surprising.

However, when looking at the implications related to the time frame of submodel (3), it appears that political linkages do play a role for China, and the statistical difference with The Netherlands is significant. These findings are rather puzzling according to the authors, which argue that this could possibly be the result of a combination of two factors which may lead to a certain degree of bias. Namely, these are the PLINK index variable artificially constructed by the authors and the relatively small sample size for the observations of the Dutch FDI.

Regarding the findings related to the cultural linkages variables, a more complex argumentation is needed. On the one hand in fact, the Cultural Proximity (CP) factor does not present a significant difference between FDI from The Netherlands and China, while on the other hand, the cultural distance index HLINK does. As for the findings related to CP, the authors agree on following the same argumentation proposed in the related section of 8.2. The networks established by Dutch communities may indeed be also not be particularly amp and branched, due to the limited number of Dutch nationals living in Latin America⁴⁰.

³⁹ The country which scored the highest in PLINK with The Netherlands is Chile, which is indeed among the most competitive markets for inward FDI in Latin America in the period considered (ECLAC, 2015).

⁴⁰ However, as stated in the limitations of this thesis (Chapter 9), consistent data on the censuses of Latin American countries were not attainable, therefore such argumentation cannot be further validated.

Findings related to the cultural distance interaction term instead, show a significant difference for Dutch foreign investment. Such relevance for the case of The Netherlands may highlight a different mindset between Dutch and Chinese investors. Following an historical reasoning, similarly to many European countries, The Netherlands have been involved in international exploration in the past five hundred years, establishing trade and social relations with different countries. Additionally, it needs to be considered that, as part of its current kingdom, The Netherlands hold sovereignty in many territories within South America and the Caribbean (e.g. Suriname, Aruba, Curacao, etc.), which could indeed play a role in this sense. For these reasons, it can be concluded that Chinese firms may be more affected by the perceived psychic distance with Latin American countries, due to a less open mentality towards distant cultures, as confirmed by historical evidence of global colonization.

8.3.4 Summary of the findings

Considering the period in question for regression (1), some of the FDI determinants into Latin American identified by this thesis can be acknowledged to be “China-specific”. Precisely, the quality of institutions, the political stability, cultural distance and the large reserves of natural resources of the host country affect Chinese firms’ investment decisions in a unique way. These findings remark how Chinese investors find easier access in countries less likely to meet the institutional standards required by developed firms, thus presenting lower competition.

Also, it is stressed how the resource-seeking motives are different for the internationalization of firms from either country; differently from The Netherlands, China is in fact focused on the acquisition of raw materials such as ores, fuels and minerals. Such difference in the need of raw materials, highlights the gap in the economic development between the two countries. Despite this, the absolute host country market size and the established imports from the home country, cannot be referred to as specific drivers for foreign investment from Chinese firms. Lastly, Chinese investors seem to be more influenced by the cultural distance with the host country, in comparison to the Dutch counterparts characterized by a more global mindset.

9. Limitations

This section aims at presenting the main limitations of this thesis. Regarding the main subject of study, the only investment type included in the thesis is foreign direct investment made by Chinese companies, no portfolio investment has been considered. Also, no sector analysis has been conducted on the industries in which the Chinese investors or their subsidiaries are active, as the authors argue the distinction between a large number of different industries would have made the analysis particularly complex and perhaps confusing. Adding onto that, formal regulations - i.e. page limitations - have prevented the authors from conducting this type of analysis. Moreover, this thesis analyzes a number of existing theoretical concepts with respect to their appropriateness in explaining Chinese FDI in Latin America. However, while important aspects of such theories are compared to each other as well as to the data, no in-depth exploration of the individual theories is included. Additionally, perhaps one of the main limitations of this thesis is the scarce availability of literature on specific studies of Chinese outward FDI in Latin America.

Concerning the regression analysis, the lack of relevant data sources restrained the type of independent variables contained in the statistical models proposed. In fact, the choices of the proxies for some variables has been inevitably affected, potentially resulting in failing to capture the underlying phenomenon desired (such as accurate wage levels or the number of Chinese population in the host country throughout the years⁴¹, as discussed in 7.1), due to a lack of relevant data. In some cases, such limitations have forced the authors to exclude certain host countries from the final study (e.g. Cuba and the Dominican Republic) as characteristics that might be of importance in Chinese FDI decisions could not be included.

With regards to the statistical analysis, it needs to be stressed how the choice of transforming the dependent variable (OFDI) into natural logarithms, inevitably excluded all the negative values from the regression. Different approaches to obviate this issue have been screened by the authors⁴² although without any satisfactory result. Thus, this thesis only allows to elaborate on the motives which attract Chinese foreign investment, although neglecting the ones that by contrast repel it.

⁴¹ The only numbers obtained referred to sporadic censuses conducted in different years for the different countries. In some cases, these data are even 15 years old.

⁴² The two methods adopted are the negative logarithm and the inverse hyperbolic sine transformation. In both cases, they lead to unreliable regression results, which potentially could have overshadowed the true explanatory power of the regressions adopted.

10. Conclusions and Final Remarks

The goal of this thesis has been to identify why Chinese corporations engage in FDI into Latin American countries, to compare motives with European investors and to evaluate the applicability of existing theoretical concepts to the underlying study. The main research question was developed to be very broad, and four subordinate questions were derived. To answer each of them, three quantitative models were developed and tested through regression analysis to form the base of discussion, which is further supported by a descriptive overview of Chinese FDI in the second Chapter. The following conclusion is intended to summarize the answers to each subordinate research question, following the structure proposed in the introduction. It is noted that the first two subordinate research questions will be answered simultaneously to ease the flow of argumentation for the reader. After answering the questions, a few suggestions will be made to highlight opportunities for further research.

10.1 & 10.2 Host country factors attracting Chinese FDI and implications from the global crisis

The first and second sub-questions relate to which host country factors attract Chinese investors in Latin America and how motives may have changed due to the economic crisis. Existing theories and different studies within literature were critically screened to select host country characteristics that should play a role in the final specification of the regression models later presented. To investigate the effects of the crisis on motives of Chinese investors, the data (ranging from 2003 – 2015) were divided into two time periods (2003 – 2007 and 2008 – 2015). As Model 3 was developed with the sole purpose of comparing motives of China and Netherlands as investors, the authors focus exclusively on the results of Models 1 (generic) and 2 (generic plus China-specific variables) to answer the first two subordinate questions. The first paragraph for each variable relates to the findings for the whole time-frame, whereas the second paragraph takes a closer look at what determines Chinese FDI within the two sub-periods.

Chinese investors are attracted to large domestic markets despite of their growth prospects, as illustrated in both models. As it has been identified, underlying motivations for this market-seeking FDI may relate to the opportunity to gain access to new customers and strengthen the domestic economy which is highly dependent on exports.

The global crisis did not appear to have affected China's attraction towards large host markets in any particular way. Nonetheless, it can be argued that the importance of GDP has decreased for Chinese investors after the crisis. This may simply be due to either a shift of focus towards other factors, as argued in 8.1, or due to the fact that developing economies represented attractive investment opportunities for the global community during and after the crisis, thus resulting in increased barriers to entry for China.

Furthermore, Chinese investors tend to be attracted to Latin American host market environments that are characterized by poor institutional quality but at the same time hold a certain level of political stability.

The avoidance of countries bearing high levels of political risk may be due to uncertainties about investing into a destination where the costs of doing business may not be estimated accurately. The authors would like to challenge what the majority of literature has named as China being attracted to 'weak' institutions. They rather propose that China may be attracted to similar institutional systems as institutional estimates were created from a developed perspective and emerging economies may perceive it differently. Nonetheless, Chinese investors aim to gain competitive advantages through capitalizing on their knowledge of similar institutional systems. Because of the Chinese non-interference policy with local affairs. Finally, it can be concluded that the non-interference policy of the Chinese government can provide investors with more investment opportunities and less barriers in certain countries which find it hard to attract developed investors.

The crisis has had an impact on investment behavior, as institutional quality only become relevant after 2007 in Model 2. This implies that the crisis has led to increased competition in developing host markets that continued to present attractive investment opportunities during this time due to growing GDP figures, such as Brazil. As barriers to entry rose, Chinese investors may simply have found easier access to markets that were characterized by high corruption and low infrastructure. Nonetheless, investors still value politically stable environments to keep costs of doing business in moderate levels. Moreover, the non-significance of institutional quality and political stability until 2007 highlighted in 8.2 may be related to potential hidden interactions of institutional quality and natural resource levels which have been highlighted by previous studies.

At the same time, Chinese investors are looking to invest in countries with an abundance of natural resources to ensure an adequate supply for the growing home economy, as highlighted in both

models. Although not as fast as before, the Chinese economy is still growing at high rates and demand for natural resources that are required for production has grown as well. As apparent, much of the supply is secured through conducting FDI.

The fact that natural resources do not achieve statistical support for the sub-periods in 8.2 can be interpreted in the way that Chinese investors may have shifted their attention towards investing into the service-based industry. Nonetheless, given the fact that natural resources are relevant for the overall timeframe, this kind of result most likely relates to hidden interactions between institutional quality and natural resource levels, which have not been investigated by the authors in the underlying research. Furthermore, Chinese investors appear to engage in tariff-jumping FDI as well as trade-substituting FDI, as supported by the findings of both Models. Additionally, in the special case of China, existing trade relationships may have incentivized Chinese investors to follow up with direct investments. The economic crisis did not severely affect investment behavior within this dimension.

None of the linkages variables achieved statistical support for the overall time-period. When looking at effects of the global crisis, political linkages have a negative impact on Chinese FDI before the crisis. This may be due to similar reasons that were outlined for institutions as the host countries that China has strong political ties with are also those which present the highest level of FDI competition. Furthermore, it appears that Chinese investors started paying attention to cultural distance after 2007, which may be attributed to higher levels of uncertainty due to the crisis, resulting in a desire to invest in relatively close economies.

Finally, labor cost does not play a role for Chinese investors which may be attributed to the fact that the country has sufficient supply of cheap labor, despite rising wage levels over the past years. Apart from this, openness within the host country does not impact Chinese investors which may partly be due to the measures applied being too generic. Also, cultural proximity is found not to be relevant within this thesis; such conclusion can be attributed to the overall very low presence of Chinese community within Latin America as well as potential methodological limitations.

10.3 Differences of the location motives of FDI in relation to developed economies

In order to investigate to whether the motives identified by this thesis as relevant for China FDI in Latin America differ from the ones driving investments from developed economies, a comparative quantitative analysis has been carried out. Precisely, introducing data collected for The Netherlands in regards to the FDI outflows directed towards the same pool of countries previously analyzed for China, a statistical model has been constructed to test for the statistical difference of variables found to be significant in the previous two models.

From the results, it can be concluded that some of such FDI driving determinants can be acknowledged as specific to the case of China. In particular, this thesis finds host country variables such as quality of institutions, political stability, cultural distance and the large reserves of natural resources to affect Chinese firms' investment decisions differently than the case of The Netherlands. These findings remark how Chinese investors may find easier access in countries which are less likely to meet the institutional standards required by developed investors, thus presenting lower competition.

Also, differently from The Netherlands, China is focused on the acquisition of raw materials such as ores, fuels and minerals. Such difference in the need of raw materials, highlights the gap in the economic development between the two countries. Moreover, Chinese investors seem to be more influenced by the cultural distance with the host country, in comparison to the Dutch counterparts characterized by a more global mindset. On the other hand, the absolute host country market size and the established imports from the home country, are commonly attracting investments from both countries.

Therefore, the authors agree on indicating institutional, cultural and resource-seeking motives to differently affect investment decisions of Chinese firms in comparison with peers from developed economies, in the context of Latin America. At the same time, market-seeking motivations as well as jump-tariffs incentives, although also holding particular importance in in the location decision process, are to be identified as common attracting motives of FDI which Chinese investors share with others from developed economies.

10.4 Support of existing FDI theories

The different levels of analysis of FDI determinants conducted in this thesis and the inherent results obtained allow a clear evaluation of the theoretical concepts used as rationale in the development of the hypotheses. In particular, it can be concluded that classical FDI theory explains most of Chinese investment in Latin America. Among the latest theories on developing economies, the Latecomer Theory appear to hold a limited degree of support.

Among the classical theories, Dunning's eclectic paradigm and the gravity model appear to have relatively high explanatory power of Chinese FDI outflows to Latin America. In fact, as previously mentioned, market-seeking as well as resource-seeking motives appear to be determinant, while efficiency-seeking incentives do not appear to play a role. Also, concepts from the Uppsala Model and Partial Equilibrium Analysis, namely Trade Effects, find support in the relevance of jump-tariffs motives. At the same time, theoretical concepts related to Trade Protection are found to be of little explanation, considering the minor importance of levels of market openness and trade freedom in the host country.

Institutional Theory and the Transaction Costs approach appear not to be appropriate in the explanation of the findings of this thesis; on the contrary, the implications are rather puzzling. On the one hand in fact, such theories are supported in relation to the importance that the stability of the political government of the host country holds; on the other hand, good institutions are not incentivizing Chinese investments, but rather quite the opposite. Lastly, the Latecomer Theory only appears to play a limited role, considering the little evidence found in relation to the cultural distance and no support of the importance of social nor political linkages. For the same reason, the Government steward logic does not appear to be supported either.

10.5 Suggestion for further research

Although this thesis provides detailed insights into Chinese FDI activities in Latin America, a certain number of questions have been left unanswered. For instance, due to data scarcity, the regression analysis could not capture indications that the characteristics of Chinese FDI might have changed around the time the go global policy was implemented. A company-level analysis would moreover be helpful in determining whether this is indeed the case and which changes have occurred.

Additionally, while argumentations presented regarding the importance of institutions and natural resource have been amply highlighted, the regression analysis did not include an interaction between such two variables. Statistical support to this regards would clarify whether the preference of Chinese investors for countries with weak institutions is indeed related to their stock of natural resources; this would also bring new support to the discussions related to the high entry barriers posed by international competition in other markets.

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Appendix 1

Model 1

All the tables and figures are personal elaborations derived from STATA(14).

Table A.1 - Correlation Matrix Initial Specification Model 1

	lnOFDI	lnGDP	lnGDPP	GDPG	PS	INS	lnAW	TGDP	TF	IF	FF	NR	IMP
lnOFDI	1.0000												
lnGDP	0.5220	1.0000											
lnGDPP	0.4038	0.5953	1.0000										
GDPG	-0.1533	-0.2179	-0.1362	1.0000									
PS	-0.1251	-0.1068	0.4090	-0.0329	1.0000								
INS	-0.2182	0.0949	0.4549	-0.0257	0.6959	1.0000							
lnAW	0.2256	0.5723	0.9000	-0.0781	0.4259	0.5926	1.0000						
TGDP	-0.2960	-0.6664	-0.2244	0.2710	0.1677	0.0487	-0.2319	1.0000					
TF	-0.0737	-0.1800	0.1641	-0.0686	0.3967	0.5019	0.1285	0.3298	1.0000				
IF	-0.3259	-0.0345	0.2632	-0.0095	0.4010	0.7680	0.4428	0.1680	0.5357	1.0000			
FF	-0.2889	-0.1209	-0.2015	-0.0158	-0.0662	0.3979	-0.0327	0.3777	0.3302	0.5317	1.0000		
NR	0.2534	0.0144	-0.1931	0.0162	-0.5086	-0.3299	-0.3040	-0.1798	-0.2471	-0.4791	0.0132	1.0000	
IMP	0.3705	0.0402	0.3441	-0.0157	0.0983	0.1096	0.1876	0.2089	0.4949	0.2730	0.0911	-0.0313	1.0000

Table A.2 VIF Initial Specification Model 1

Variable	VIF	1/VIF
lnGDPP	12.18	0.082080
lnAW	10.46	0.095582
INS	10.35	0.096646
IF	6.52	0.153409
lnGDP	5.34	0.187196
PS	5.31	0.188472
FF	4.34	0.230256
TGDP	4.25	0.235420
NR	2.78	0.359855
TF	2.33	0.429420
IMP	2.19	0.456690
GDPG	1.26	0.791747
Mean VIF	5.61	

Table A.3 Descriptive Statistics Final Specification Model 1

Variable	Obs	Mean	Std. Dev.	Min	Max
OFDI	156	6.06e+07	1.69e+08	-1.78e+08	1.54e+09
GDP	232	2.37e+11	4.63e+11	5.32e+09	2.61e+12
GDPG	233	4.267919	3.288903	-7.7553	18.28661
PS	234	-.334575	.6393923	-2.3857	.9899
INS	234	-.2018858	.5916966	-1.50374	1.364965
AW	222	4748.554	3015.293	979.1758	13565.44
TGDP	232	68.21322	28.7982	22.10595	157.0687
TF	234	74.49444	8.358964	44.4	88
NR	231	28.24743	28.30345	.4213737	98.80975
EXP	232	11.31465	6.285832	1.170175	34.21847

Table A.4 - Correlation Matrix Final Specification Model 1

	lnOFDI	lnGDP	GDPG	PS	INS	lnAW	TGDP	TF	NR	IMP
lnOFDI	1.0000									
lnGDP	0.5220	1.0000								
GDPG	-0.1533	-0.2179	1.0000							
PS	-0.1251	-0.1068	-0.0329	1.0000						
INS	-0.2182	0.0949	-0.0257	0.6959	1.0000					
lnAW	0.2256	0.5723	-0.0781	0.4259	0.5926	1.0000				
TGDP	-0.2960	-0.6664	0.2710	0.1677	0.0487	-0.2319	1.0000			
TF	-0.0737	-0.1800	-0.0686	0.3967	0.5019	0.1285	0.3298	1.0000		
NR	0.2534	0.0144	0.0162	-0.5086	-0.3299	-0.3040	-0.1798	-0.2471	1.0000	
IMP	0.3705	0.0402	-0.0157	0.0983	0.1096	0.1876	0.2089	0.4949	-0.0313	1.0000

Table A.5 VIF Initial Specification Model 1

Variable	VIF	1/VIF
INS	3.36	0.297592
lnGDP	3.26	0.306871
lnAW	3.23	0.309168
PS	2.59	0.386172
TF	2.29	0.436318
TGDP	2.28	0.439176
IMP	1.63	0.614524
NR	1.47	0.679186
GDPG	1.13	0.884064
Mean VIF	2.36	

Model 1 – Robustness Tests

Wooldridge test for autocorrelation in panel data

H0: no first order autocorrelation

$F(1, 12) = 6.419$

Prob > F = 0.0263

Hasuman Test

	fixed	random	Difference	S.E.
lnGDP	1.919845	0.9662653	0.9535799	0.9334483
GDPG	-0.0719132	-0.0273944	-0.0445188	0.0143309
PS	0.0263146	1.337064	-1.31075	0.6502813
INS	-0.4217156	-2.038107	1.616391	2.457036
lnAW	-0.5958389	0.3650311	-0.9608701	0.8982453
TGDP	0.0349414	0.0060621	0.0288793	0.0235439
TF	0.0558801	0.0123032	0.0435769	0.0267839
NR	0.0344356	0.0266707	0.0077649	0.0232197
ELINK	0.1335641	0.1299741	0.00359	0.050949

Test: Ho: difference in coefficients not systematic

$\chi^2(9) = (b-B)'[(V_b - V_B)^{-1}](b-B)$

146.22

Prob>chi2 = 0.0000

($V_b - V_B$ is not positive definite)

Breusch and Pagan Lagrangian multiplier test for random effects

$$\ln\text{OFDI}[\text{ID},t] = \text{Xb} + u[\text{ID}] + e[\text{ID},t]$$

Estimated results:

	Var	sd = sqrt(Var)
-----+-----		
lnOFDI	5.819373	2.412338
e	2.094449	1.447221
u	.0319438	.1787284

Test: $\text{Var}(u) = 0$

chibar2(01) = 1.94

Prob > chibar2 = 0.0820

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of lnOFDI

chi2(1) = 6.86

Prob > chi2 = 0.0088

Figure A.1 – Residuals Model 1

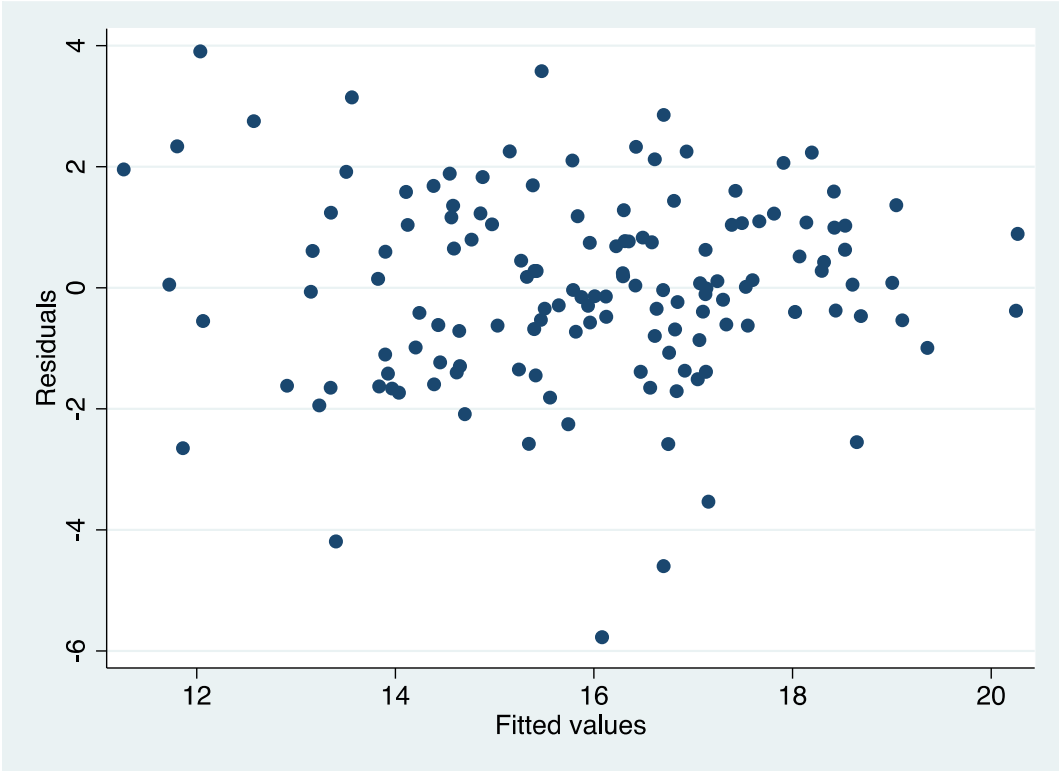


Table A.6 - Model 1 Alternative regressions Model 1

	<i>POLS</i> 2003-2015	<i>RE</i> 2003-2015	<i>RE</i> 2003-2007	<i>RE</i> 2003-2007
Variable	Coeff.	Coeff.	Coeff.	Coeff.
lnGDP (H1a)	.9430866 (.1577953) ***	.9662653 (.2030148) ***	1.056979 (.4394021)**	.9945963 (.1936663)***
GDPG	-.0243376 (.0458467)	-.0273944 (.0418339)	-.0095786 (.0380106)	-.0411635 (.0589577)
PS	1.33312 (.3049168)***	1.337064 (.4037344)***	1.030775 (.513419)**	1.055512 (.387101)***
INS	-2.019325 (.3536964)***	-2.038107 (.5625969) ***	-1.715204 (.6270027)***	-1.025301 (.8279244)
lnAW	.352182 (.297245)	-.3650311 (.4086967)	-.3534802 (.6842457)	-.2628225 (.6308587)
TGDP	.0050575 (.0080328)	.0060621 (.0083626)	.0244391 (.0141188)*	-.0009214 (.0082194)
TF	.009761 (.0282338)	.0123032 (.0395924)	-.016987 .0498448	-.00363333 (.0379074)
NR	.0259836 (.0046417)***	.0266707 (.0070384)***	.019291 (.0075349)*	.027369 (.0071446)***
IMP	.1301453 (.0383765) ***	.1299741 (.0537664)**	.2076997 (.0745279)***	.1414572 (.0447299)***
_cons	-14.49384 (5.123647)	-15.46282 (7.257391)	-11.61226 (8.889482)	-6.702457 (5.632708)
<i>N</i>	139	139	48	91
<i>R</i> ²	0.5853	0.5851	0.4603	0.5531
<i>F-Test</i>	18.80 (0.0000)			
<i>Chi</i> ²		141.93 (0.0000)	266.53 (0.0000)	151.87 (0.0000)

*p<0.1, **p<0.05, ***p<0.01. Robust Standard Errors in parentheses

Appendix 2

Model 2

All the tables and figures are elaborations derived from STATA(14).

Table A.7 Descriptive Statistics Model 2

Variable	Obs	Mean	Std. Dev.	Min	Max
OFDI	156	6.06e+07	1.69e+08	-1.78e+08	1.54e+09
GDP	232	2.37e+11	4.63e+11	5.32e+09	2.61e+12
GDPG	233	4.267919	3.288903	-7.7553	18.28661
PS	234	-.334575	.6393923	-2.3857	.9899
INS	234	-.2018858	.5916966	-1.50374	1.364965
AW	222	4748.554	3015.293	979.1758	13565.44
TGDP	232	68.21322	28.7982	22.10595	157.0687
TF	234	74.49444	8.358964	44.4	88
NR	231	28.24743	28.30345	.4213737	98.80975
INP	232	11.31465	6.285832	1.170175	34.21847
PLINK	234	36.15355	19.66828	12.75862	68.55172
HLINK	195	2.176331	1.173987	.3051084	4.499378
CP	234	.2692308	.4445109	0	1

Table A.8 Correlation Matrix Model 2

	lnOFDI	lnGDP	GDPG	PS	INS	lnAW	TGDP	TF	NR	EXP	PLINK	HLINK
lnOFDI	1.0000											
lnGDP	0.5537	1.0000										
GDPG	-0.1620	-0.2561	1.0000									
PS	-0.1511	-0.1973	-0.0344	1.0000								
INS	-0.2803	-0.0848	-0.0103	0.7106	1.0000							
lnAW	0.2296	0.3333	-0.0927	0.5657	0.5950	1.0000						
TGDP	-0.2832	-0.6249	0.2896	0.2206	0.1751	-0.0184	1.0000					
TF	-0.0418	-0.0389	-0.0956	0.4530	0.6651	0.5216	0.2435	1.0000				
NR	0.2596	0.1208	0.0175	-0.5323	-0.3210	-0.2548	-0.2237	-0.2817	1.0000			
INP	0.5207	0.2459	-0.0838	0.1874	0.2717	0.5310	0.0702	0.4881	0.0200	1.0000		
PLINK	0.0456	0.2833	-0.1449	0.0651	0.3952	0.1550	-0.4957	0.2718	0.3398	0.1645	1.0000	
HLINK	-0.3123	-0.2737	0.0617	0.7068	0.7083	0.4679	0.0918	0.4930	-0.4097	0.1756	0.2078	1.0000

Table A.9 VIF Model 2

Variable	VIF	1/VIF
INS	8.04	0.124377
TF	5.65	0.176948
lnAW	4.69	0.213329
PLINK	4.43	0.225913
PS	4.07	0.245776
HLINK	3.92	0.255033
lnGDP	3.76	0.265660
TGDP	3.76	0.265775
NR	3.59	0.278573
CP	2.08	0.481377
IMP	1.53	0.654549
GDPG	1.26	0.796707
Mean VIF	3.90	

Model 2 – Robustness Tests

Wooldridge test for autocorrelation in panel data

H0: no first order autocorrelation

$F(1, 9) = 6.994$

$\text{Prob} > F = 0.0267$

Breusch and Pagan Lagrangian multiplier test for random effects

$\ln\text{OFDI}[\text{ID}, t] = Xb + u[\text{ID}] + e[\text{ID}, t]$

Estimated results:

	Var	sd = sqrt(Var)
-----+-----		
$\ln\text{OFDI}$	6.22874	2.495744
e	2.1912	1.48027
u	0	0

Test: $\text{Var}(u) = 0$

$\text{chibar2}(01) = 0.00$

$\text{Prob} > \text{chibar2} = 1.0000$

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

H0: Constant variance

Variables: fitted values of $\ln\text{OFDI}$

$\text{chi2}(1) = 8.99$

$\text{Prob} > \text{chi2} = 0.0027$

Figure A.2 – Residuals Model 2

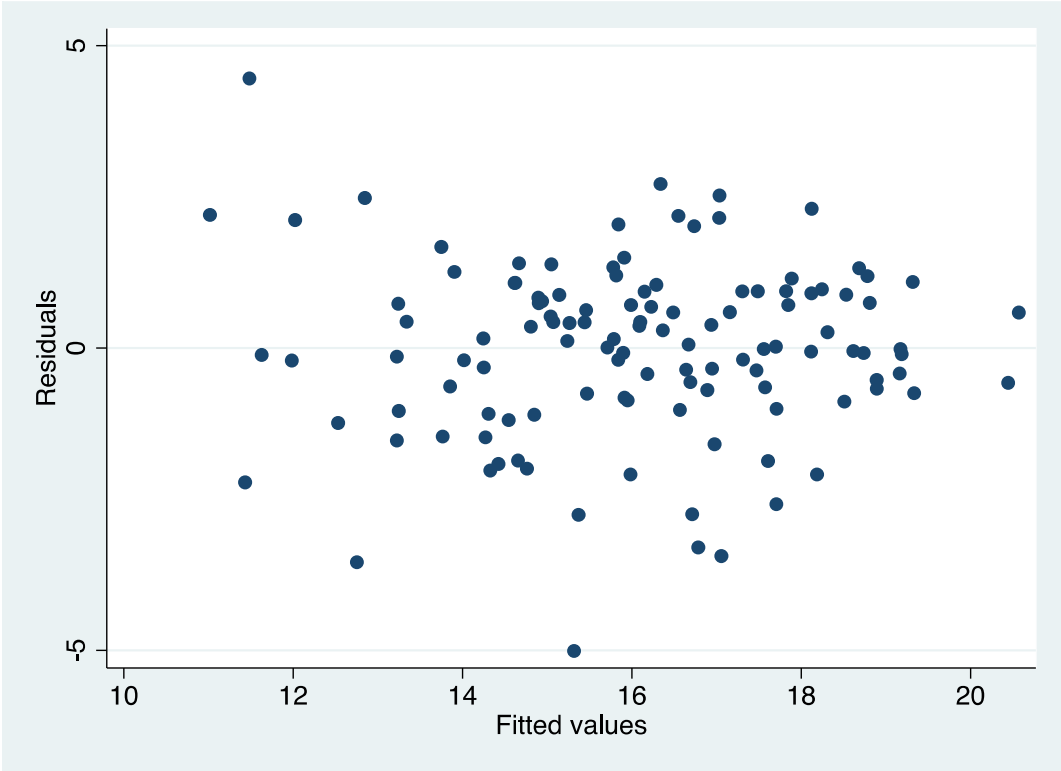


Table A.10 - Alternative Regressions Model 2

	REs 2003-2015	REs 2003-2007	REs 2008-2015
Variable	Coeff.	Coeff.	Coeff.
lnGDP (H1a)	.6571441 (.1954884) ***	1.006098 (.5355284) *	.6088369 (.2546641) **
GDPG (H1c)	.0017856 (.0550585)	-.0321033 (.0813459)	.0273541 (.0633104)
PS (H2b)	1.245632 (.2314197) ***	.7467371 (.7516681)	1.162602 (.4740945) **
INS (H2a)	-1.783403 (.4951022) ***	-1.072201 (.9600385)	-1.851039 (.7005748) ***
lnAW (H3)	.2287014 (.4400617)	-.6877473 (1.572261)	-.0092234 (.8935876)
TGDP (H4a)	-.0051425 (.007375)	.0027024 (.0217867)	-.0025669 (.0107535)
TF (H4b)	.0070671 (.0414764)	-.0009465 (.0669308)	-.0416365 (.0506)
NR (H5)	.0176371 (.0074763) **	.0273343 (.0235104)	.0082416 (.0109266)
IMP (H6)	.2352576 (.0475871) ***	.253069 (.095068) ***	.2320323 (.0580281) ***
PLINK (H7)	-.0092085 (.0123928)	-.069187 (.0387446) *	.0378887 (.0238195)
HLINK (H8a)	-.389553 (.2255172) *	.5364716 (.7236094)	-.5194454 (.3416836)
CP (H8b)	-.0602063 (7.770273)	-.4315342 (.9801585)	.6667609 (.6625219)
_cons	-5.04797 (7.28671)	-5.756622 (9.496137)	.2292359 (11.44843)
<i>N</i>	119	45	74
<i>Overall R²</i>	0.6618	0.5458	0.6596
LM test	Chi ² (1) = 0.000	Missing	Missing

*p<0.1, **p<0.05, ***p<0.01. Robust Standard Errors in parentheses

Appendix 3

Model 3

All the tables and figures are elaborations derived from STATA(14).

Table A.11 - Descriptive Statistics Model 3

Variable	Obs	Mean	Std. Dev.	Min	Max
OFDI	264	9.37E+07	5.61E+08	-1.53E+09	7.22E+09
GDP	360	2.15E+11	4.27E+11	5.32E+09	2.61E+12
GDPG	360	4.5159	3.384368	-7.7553	18.28661
PS	360	-0.3749656	0.6601157	-2.3857	0.954576
INS	360	-0.2007223	0.581572	-1.305594	1.364965
AW	346	4457.93	2737.482	988.2573	12926.17
TGDP	360	69.37877	29.49812	22.10595	157.0687
TF	360	73.40611	8.441905	44.4	88
NR	360	28.72084	28.46097	0.4213737	98.80975
ELINK	360	5.290467	6.29223	0.1074582	34.21847
PLINK	360	41.2821	17.57925	12.75862	79.31394
HLINK	300	3.223614	1.649335	0.3051084	6.588745
CP	360	0.2444444	0.4303555	0	1
CD	360	0.5	0.5006959	0	1

Table A.12 - Correlation Matrix Model 3

	lnOFDI	lnGDP	GDPG	PS	INS	lnAW	TGDP	TF	NR	ELINK	PLINK	HLINK
lnOFDI	1											
lnGDP	0.5361	1.00E+00										
GDPG	-0.0779	-0.21	1									
PS	-0.0923	-0.1662	-0.0252	1								
INS	-0.1467	-0.0544	-0.0675	0.7088	1							
lnAW	0.2647	0.4908	-0.0194	0.4607	0.5192	1						
TGDP	-0.3316	-0.6677	0.2194	0.2569	0.177	-0.0909	1					
TF	-0.061	-0.0219	-0.065	0.4387	0.6541	0.4662	0.2669	1				
NR	0.1474	0.1856	0.0639	-0.5307	-0.3204	-0.0539	-0.2717	-0.2685	1			
ELINK	-0.1813	0.1542	0.0218	0.0383	0.1692	0.3165	0.0642	0.2388	0.1359	1		
PLINK	0.2453	0.3785	-0.1771	0.1567	0.3789	0.2483	-0.3626	0.2498	0.1846	-0.065	1	
HLINK	0.1883	-0.1589	0.0922	0.0011	0.0229	-0.0401	0.1136	0.0771	-0.0794	-0.5019	0.1186	1

Model 3 – Robustness Tests**Breusch-Pagan / Cook-Weisberg test for heteroskedasticity (For China alone)**

Ho: Constant variance

Variables: fitted values of lnOFDI

chi2(1) = 7.53

Prob > chi2 = 0.0061

Model 3 POLS regression without interactions

Table A.13 – China (No interactions)

	<i>POLS</i> 2003-2012	<i>POLS</i> 2003-2007	<i>POLS</i> 2008-2012
Variable	Coeff.	Coeff.	Coeff.
lnGDP (H1a)	.7249528 (.3428454)**	1.006098 (.5368737)*	.3013313 (.3802996)
GDPG (H1c)	.0073276 (.0499314)	-.0321033 (.041125)	-.0108312 (.1078064)
PS (H2b)	1.467927 (.4341292)***	.7467371 (.8504479)	1.838259 (.3022911)***
INS (H2a)	-1.458985 (.5646136)**	-1.072201 (.8666056)	-1.403961 (.6837205)**
lnAW (H3)	-.6330831 (.7276751)	-.6877473 (1.235231)	-1.33049 (1.066748)
TGDP (H4a)	-.0114466 (.0129686)	.0027024 (.0198099)	-.0179611 (.0154742)
TF (H4b)	.0325456 (.0450198)	-.0009465 (.0593127)	-.0747532 (.0643395)
NR (H5)	.0297215 (.0094982)***	.0273343 (.016875)	.0094147 (.0125738)
EXP (H6)	.2672062 (.0675009)***	.2645311 (.1111991)**	.431176 (.0937027)***
PLINK (H7)	-.0239403 (.0201521)	-.069187 (.0305568)**	.0692126 (.0322037)**
HLINK (H8a)	-.4976675 (.4997933)	.5364716 (.5646353)	-1.219084 (.3655738)***
CP (H8b)	.4342649 (.7640395)	-.4315342 (1.100848)	1.524947 (1.129797)
_cons	-.801079 (9.291199)	-5.756622 (11.62289)	20.79686 (9.662875)
<i>N</i>	92	45	47
<i>R</i> ²	0.6387	0.5458	0.7739
<i>F-Test</i>	0.0000	0.0000	0.0000

*p<0.1, **p<0.05, ***p<0.01. Robust Standard Errors in parentheses

Model 3 POLS regression without interactions
Table A.14 - Netherlands (No interactions)

	<i>POLS</i> 2003-2015	<i>POLS</i> 2003-2007	<i>POLS</i> 2008-2015
Variable	Coeff.	Coeff.	Coeff.
lnGDP (H1a)	.7212927 (.2315326)**	.9333716 (.343062)**	1.673871 (.7128322)**
GDPG (H1c)	.0616425 (.038185)	.1070075 (.0588128)*	-.0117358 (.1064282)
PS (H2b)	.1084529 (.3834099)	.6645777 (.5794463)	.0055404 (2.179443)
INS (H2a)	1.298695 (.514643)**	1.93731 (.6445355)***	-.0555591 (1.855266)
lnAW (H3)	.5877864 (.5151952)	-.4294116 (.7952351)	1.146486 (2.278781)
TGDP (H4a)	-.0199902 (.0093882)	-.0238774 (.0125323)*	.032627 (.0316926)
TF (H4b)	-.0725598 (.0259392)***	-.0832143 (.0309349)**	.0034046 (.1613692)
NR (H5)	-.0124198 (.0084405)	-.0026677 (.0141096)	.0001728 (.0231264)
EXP (H6)	.0588751 (.5059045)	-.0995891 (.5144038)	.0221555 (1.12849)
PLINK (H7)	.0187231 (.0190122)	.0020577 (.0269937)	-.023679 (.049926)
HLINK (H8a)	.4295565 (.1677816)**	.6781494 (.2173785)***	-.2281263 (1.019457)
CP (H8b)	-.2903854 (.3965078)	-.7099167 (.43818)	1.153636 (1.252525)
_cons	-1.47413 (4.201435)	2.409752 (5.55047)	-35.53914 (41.54059)
<i>N</i>	64	43	22
<i>R</i> ²	0.6618	0.5458	0.6596
<i>F-Test</i>	0.0000	0.0000	0.0000

*p<0.1, **p<0.05, ***p<0.01. Robust Standard Errors in parentheses

Model 3 RE regression with interactions
Table A15 – Model 3 – Random Effects

	REs 2003-2012 Coef.	REs 2003-2007 Coef.	REs 2008-2012 Coef.
lnGDP	0.541422 (0.2774259)*	.8302305 (.2145318)***	0.3193201 (0.5693794)
CD*lnGDP	0.349947 (0.1901504)*	.3738163 (.1810227)**	0.6248388 (0.434231)
GDPG	0.0199715 (0.0429351)	-.0069568 (.0276527)	0.003735 (0.1115442)
PS	1.315108 (0.2242508)***	.78659 (.4239748)*	1.654667 (0.2950203)***
CD*PS	-1.101573 (0.4046165)***	.0501086 (.4643622)	-1.614681 (1.076814)
INS	-1.230359 (0.4757785)**	-.4891025 (.3877757)	-1.678496 (0.811202)**
CD*INS	1.995252 (0.3867013)***	1.593062 (.2602945)	3.333201 (0.6173948)***
lnAW	0.1127018 (0.6049141)	-.3100625 (.4250883)	-0.5556151 (1.281626)
TGDP	-0.010741 (0.0075579)	-.0038009 (.0073528)	-0.0111447 (0.0195988)
TF	-0.0224498 (0.0287186)	-.0469133 (.0175809)***	-0.0844747 (0.0656003)
NR	0.0219968 (0.0106625)**	.0241446 (.0098308)**	0.0093758 (0.0126819)
CD*NR	-0.0259333** (0.0116609)	-.0091381 .0136788	-0.0310891 (0.0123933)**
IMP	0.2843406 (0.0729656)***	.2919263 (.0835824)***	0.3971751 (0.1308481)***
CD*IMP	-0.0845343 (0.6541874)	-.3254383 (.5816045)	-0.4375018 (0.9386616)
PLINK	-0.0114381 (0.0127584)	-.0728145 (.0151924)***	0.0807705 (0.0243231)***

CD*PLINK	0.0213597 (0.0204063)	.0514723 (.0207359)**	-0.0719228 (0.0397229)*
Hlink	-0.6804713 (0.3986162)*	.1150531 (.3197453)	-1.154002 (0.255714)***
CD*Hlink	0.9259461 (0.4646701)**	.2978283 (.3913486)	1.419814 (0.6400485)**
CP	0.1896695 (0.8119135)	-.4724217 (.4466804)	1.584746 (2.015489)
CD#c.CP	-0.4068807 (0.976426)	-.0266392 (.5736465)	-0.4338689 (2.023152)
1.CD	-6.121949 (5.367442)	-6.752628 (4.19894)	-8.680677 (12.33607)
_cons	1.268956 (7.127422)	-.1137084 (4.488297)	13.50984 (9.867136)
<hr/>			
<i>N</i>	157	88	69
<i>Overall R²</i>	0.7338	0.7719	0.8188
<i>Chi²</i>	Missing	Missing	Missing

*p<0.1, **p<0.05, ***p<0.01. Robust Standard Errors in parentheses

Appendix 4

Labor Cost – AW

This section is intended to illustrate the steps to calculate the final average wage measure that are being applied within the thesis.

To quickly recall, the average wage proxy was calculated by multiplying real average wage indices (base year = 2005) with real GDP per capita (base year = 2005) in USD. In order to do so, the GDP deflator was readjusted to have a base year of 2005.

Deflator readjustment-calculation for country i in time t:

$$GDPDF_t = \frac{GDPdef_t}{GDPdef_{2005}}$$

Where GDPdef relates to the GDP deflator that has not yet been adjusted to the base year of 2005, obtained from the World Bank Database (2017).

Calculation of average wages for country i in time t:

$$AW_{it} = GDPDF_{it} \times GDPP_{it} \times WageIn_{it}$$

Where WageIn relates to real wage indices with a base year 2005, obtained from the Economic Observatory of Latin America and GDPP relates to GDP per capita in country i in time t, obtained from the World Bank Database (2017).

Note: The resulting values do not correspond to actual average wages, for reasons such as GDP being based on the entire instead of just the employed population. As the same method was used for every country, comparability is given and relations of wage levels across countries reflect reality. To test this, a sanity check with the World Development Report showed a rough match in ratios of ‘true’ wage levels with proxied wage levels.

Appendix 5

Political Linkages Index - PLINK

This appendix aims to present a detailed explanation of the methodology behind the construction of the variable PLINK. As mentioned in section 7.1.2, five different measures of political closeness between governments have been selected by the authors. Five independent indexes were created based on such measures; each index follows the same procedure: once certain values (i.e. numbers) are attributed to each host country, a ranking is created, from the highest to the lowest number. Then, the country with the highest score is given the value of 100, while the others are then calculated as a ratio of 100. Once all five indexes are built. A weight of 20% is attributed to each index in order to create an average score, before they are added together. The resulting number between 0 and 100, is therefore an average of the 5 different indexes, merged into the final one, i.e. PLINK

The motives, the data sources and the steps to the single building of the independent indexes are illustrated below.

1.

Number of annual arms exports from the home country (either China or The Netherlands) in millions USD for the time span in question for the analysis of this thesis. For the what kind of products are included into the definition of arms in this case, detailed descriptions can be found in the SIPRI Arms Transfers Database, where data were retrieved from (SIRPI, 2017).

The ratio behind the inclusion of such measure is based on the argumentation that because the military one is a sensible industry for the government's security, exports to of such commodities would be directed towards host countries' governments (or private firms into other countries) which the home country government has established friendly relations with. However, one of the limitations of such measure is that occasionally, rebel groups within one country are sold such weapons, although these are substantially opposed to their ruling government.

2.

Number of international organizations which both the home country (either China or The Netherlands) and the host country are both taken part in.

Data collection was conducted by the author through individually counting each single one of the memberships within such organizations. A final number was then determined for each host country, in relation to the home country in question. Data were obtained from the CIA Fact book database (C.I.A., 2017).

The ratio behind the inclusion of such measure is due to the fact that the intrinsic purpose of international organization is to produce common policies of regulations; ergo it enhances inter-governmental cooperation.

3.

Number of Embassies, Consulates and honorary consulates that the home country (either China or The Netherlands) possesses in the host country. Data was collected through the official websites of the ministries of foreign affairs of both China and The Netherlands (FMPRC & NLGOV, 2017).

Once the such numbers were collected, each different representative entity was weighted based on their diplomatic importance; The total number of embassies was given the value of 1,

Consulates a value of 0.5 and honorary consulates 0.25. Then these weighted values were added together into a single index. The ratio here is similar to the one for the international organization.

It is indeed argued by the authors that the better the diplomatic relations between two governments, the more number of embassies, consulates and honorary consulates are established.

However, one limitation relates to the fact that such argumentation does not take into account the size of the country; i.e. small countries, though sharing good relations with the home country, may simply not need more consulates, due to limited administrative needs.

4.

Number of Bilateral Investment Treaties (BIT) in place between the home country (either China or The Netherlands) with the host country. Data was collected through the Foreign Trade Information System Database (SICE, 2017). Once the final number for each host country was determined, a natural ranking was created, without any further data processing.

The ratio behind the choice of including such measure relates to the political aspect of such agreements. Indeed, although related to economic matters, the authors agree that bilateral inter-governmental relations are a main part of the creation of such economical agreements. As an argumentation in support of the fact that government adopts economic measures as political weapons, the following example is brought. The current crisis in North Korea has raised concerns from governments which are in hostile relations with. As a political response, economic sanctions were imposed by such governments, with the intent to damage the ruling North Korean government (Cohen & Roth, 2017).

5.

Number of Free Trade Agreements (FTA) in place between the home country (either China or The Netherlands) with the host country. Data was collected through the WTO database (WTO, 2017). For the construction of this index, as well as for the ratio of its inclusion for the building of PLINK, it can be referred to index number 4.

Appendix 6

Country sampling process

Table A.9 - List of Countries, sampling process

Country	Data availability	Dropped
Argentina	✓	No
Bolivia	✓	No
Brazil	✓	No
Chile	✓	No
Colombia	✓	No
Costa Rica	✓	No
Cuba	X	Yes
Dominican Republic	X	Yes
Ecuador	✓	No
El Salvador	✓	No
Guatemala	✓	No
Honduras	✓	No
Mexico	✓	No
Nicaragua	✓	No
Panama	✓	No
Paraguay	✓	No
Peru	✓	No
Puerto Rico*	n.a.	Yes
Uruguay	✓	No
Venezuela	✓	No

*This country was removed from the initial sample as it is a U.S. oversea territory.

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