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Determinants of Chinese Outward Foreign Direct Investment

Bachelor's Thesis

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I have written this Research paper/Bachelor Thesis independently. Any ideas or data taken from other authors or other sources have been fully referenced.

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Introduction

It is expected that at the beginning of the 2030s, China will overtake the United States of America as the world's largest economy in GDP (CEBR, 2020). Due to this change, some of the dynamics in the world order are expected to change. As one example, since 2002, the Chinese government has been promoting the „going global" idea, which has resulted in drastic increases in the flow of foreign direct investments made by China (OECD, 2021). Additionally, in 2013, the Chinese Communist Party announced a new plan for global infrastructure development called „The Belt and Road Initiative," which seems to secure current and future China's energy security (OECD, 2018). It is quite evident that China is increasingly shifting their focus more abroad for their own self-governance benefits, and as the total amounts of Chinese outward direct investment are already relatively crucial on the global scale, it is important to study what influences their investment decisions and where their investments are targeted geographically.

The aim of this work is to identify key determinants that affect China's outward foreign direct investment (OFDI) based on the most recent available data. As most of the studies on this topic use relatively old data, the main contribution of this work is providing more up-to-date information on the topic of Chinese OFDI. There is a fair amount of previous work Yao, et al. (2017), Wei and Alon (2010) and Buckley, et al. (2007) in the field of Chinese OFDI in general; however, all these studies are limited to the timeframe between 2000-2009.

The following research tasks will achieve the aim:

- Providing relevant background information in the case of China to understand if some key determinants could be different in China's case.
- Overview of main theories of FDI to address how the mainstream theories on determinants of FDI can be applied to China's situation.
- Comparison of different empirical studies on chosen determinants and their final results to better understand what methods can be used and what has been done previously.
- Build the dataset for analysis of determinants of Chinese OFDI
- To model the key determinants of Chinese outward FDI in the gravity model's framework
- Compare own results with those from prior literature on determinants of FDI.
- Discussion of the implications of the econometric analysis done.

Following different theories of FDI, the one that seems most credible is the eclectic paradigm theory put forth by Dunning (1977), according to which, there are three main advantages an organization can have: ownership advantages, location advantages and internalisation advantages. However, the theory needs to account for some changes due to developing countries' not always having these advantages, yet they are engaging in FDI. Based on the eclectic paradigm theory Dunning identifies four groups of economic FDI determinants, which will also be used to choose the final determinants for the economic model as they offer a wide range of explanatory power and are easy to understand.

The method used for the economic model will be based on a gravity model of trade, which in its simple form explains how the size of bilateral trade between two countries is based on their economic size (GDP) and proximity to each other. To estimate the model, additional variables will be added on top of proximity and size. Finally, natural logarithms of all variables will be taken, which will be followed by an ordinary least squares regression to obtain a log-linear equation, such as the one created by (Anderson & Wincoop, Gravity with Gravitas: A solution to the Border Puzzle, 2003)

China-specific data will be collected either through SAFE or MOFCOM, which are the most popular approaches to gaining China-specific data for FDI. All the other data, the host country-specific information will be gathered from UNCTAD databases, World Bank databases, or from World Development Indicators.

The structure of the research paper is divided into two main chapters and additionally into five different subchapters. In the first part of the work, the work focuses on providing the relevant theoretical background for FDI and FDI determinants, and this is done by subchapter 1.2. Subchapter 1.3 will describe the relevant empirical studies and try to arrive at the most suitable empiric methodology by comparing different studies, their methodology and sources of data.

In the second part of the work, the author will be conducting an empirical study, based on which the further discussion will be based. More specifically, subchapter 2.1 will be showcasing the relevant data and methodology used in the study, subchapter 2.2 will analyse and discuss all the relevant data gained from the model comparing the results to other relevant studies.

Keywords: China, Outward FDI, Theory of FDI, Belt and Road

1. Theoretical framework of outward foreign direct investment

1.1. Theory for FDI in the case of China

The study of foreign direct investment (FDI) can be traced back to the 1960s, where due to the increasing number of international trade and globalization, people were led to research how and why those investment decisions were made (Velde, 2006). In this section, a concise overview of the main FDI theories will be given to finally provide the best theory or theories suited for this paper.

Table 1

Main FDI theories

Author	Year	Theory
Hymer, S.H.	1976	Capital Market Imperfections theory
Buckley, P.J., Casson, M.	1976	Internalisation theory
Dunning, J.H.	1977	The Eclectic Paradigm theory
Mathews, J.A.	2006	Dragon multinationals theory
Kedia, B., Gaffney, N. & Clampit, J.	2012	Knowledge-seeking FDI theory

Source: compiled by the author

One of the earliest theories that was developed during the 1970s is the theory of imperfect markets, as can be seen in Table 1, the theory was published posthumously by (Hymer, 1976). It hypothesized that FDI was the result of capital market imperfections, a more specific example, the difference between host and home country currencies (Aliber, 1970). The main idea is that countries with weaker currencies can attract more FDI when compared to countries with stronger currencies, and source countries with stronger currencies can get financing on cheaper terms, thus giving them an advantage to invest in host countries. (Aliber, 1970) However, different authors have considerably criticized this theory (Lall, 1980; Morgan & Katsikeas, 1997). There are too many scenarios where the theory does not

apply (in the case of most developing countries with imperfect capital markets and how some developing countries' MNEs can invest in more developed countries. Overall, the theory has some value in describing why FDI might occur.

The second theory, created by Buckley and Casson (1976), is known as the internalization theory, which established two axioms for the MNEs: first, companies choose the least cost location for each action they might perform; secondly, firms internalize markets up to the critical point where the benefits of further internalization are neutral or negative. Nowadays, the term internalization is a well-known term within the business literature, and the benefits of internalization are well understood, such as reducing resource-based costs (stable supply, predictable prices), market-based costs (reducing transaction costs, information costs, trade and distribution costs (Goldstein, 2007). However, like the capital market imperfections theory, internalization also requires imperfection and inefficiencies in the market. Simultaneously, it is vital to notice that both theories are different and use different variables to explain the reason for FDI. One obvious drawback of this theory is the fact that MNEs continue to engage in FDI even though there are no direct benefits to internalization. Thus, there must also be other reasons that must explain FDI. In a more recent study, Casson and Wadeson (2018) showed that the internalization theory could also apply to Emerging Market Multinationals (EMNEs), which applies to the following framework provided.

Inspired by the two previous theories and adding a location aspect, Dunning (1977) combined these three concepts to create the holistic approach to FDI, called The Eclectic Paradigm or the OLI model. The "O" refers to ownership advantages unique to the organizations, which usually must be higher than the costs of entering a foreign market to be profitable for the firm. The "L" stands for location advantages, for example, the number of natural resources in the host country or the reduced costs of labor and other costs. It can be seen quite clearly how location can be an essential indicator of FDI decisions. Lastly, "I" stands for internalization, which has been explained above and refers to the benefits a firm can expect due to its more advanced organizational structure. Generally, all three of the O-L-I conditions must be met for the firm to engage in FDI. However, in the case of EMNEs, the theory is vulnerable to critique as developing countries very often do not have any ownership advantages or internalization advantages before the other competing MNEs. Still, the theory itself has become the standard model to use within the literature due to its high explanatory power and different layers, being only open to some criticism in the case of EMNEs (Goldstein, 2007).

The concept or theory of dragon multinationals, spearheaded by Mathews (2006), takes a different approach than the OLI eclectic framework, where MNEs expand due to their superior resources, not to gain access to resources that are otherwise not available, which is the case for Dragon Multinationals – a term coined by him. He argues that many of the newcomers, especially in the Asia-Pacific region, do not fit into the OLI framework. Rather they go beyond it, and some alternative frameworks need to be used (Mathews, 2006). This idea challenges the known theory of globalization, where it is mainly viewed that MNEs will gain more prominent and larger status in society. Eventually, smaller firms will be pushed to the side. Instead, smaller firms might have a strategic advantage over already established MNEs. To better explain the success of dragon multinationals, a framework called LLL was created by Mathews (2006). The first "L" in the theory stands for linkage, which establishes that newcomer or latecomer firms use globalization as an advantage to acquire resources otherwise unreachable. The second "L" refers to leverage, which shows how established links with partners can be used to leverage different resources. Lastly, the last "L" represents learning, where repeated use of linkage and leverage may result in the firm performing such operations much more effectively. (Mathews, 2006) It is important to notice how this specific theory contrasts with the OLI framework developed by Dunning (1977) taking an external approach rather than an internal one. In the context of this paper, most Chinese firms would seem to follow the trajectory of dragon multinational firms rather than the traditional MNEs.

Lastly, the last theory suggests that rather than being a side effect of FDI, as it is currently in the case of the OLI framework, knowledge-seeking could very well be a key motivation on its own, especially in the case of EMNEs. This idea is presented by Kedia, et al. (2012), further elaborating that EMNEs are more likely to engage in asset augmentation rather than asset exploitation because EMNEs do not have the same competitive advantages as traditional MNEs to exploit their host countries, thus being more likely to engage in exploratory rather than exploitive approaches. However, it should be kept in mind that these two approaches are not mutually exclusive, and they could be seen more like a two axes system, implying that firms go through different strategic phases.

Based on these FDI theories, in the case of EMNEs, the traditional OLI framework lacks some accuracy to explain the unique situation that those firms find themselves in and is better equipped for traditional MNEs. However, Casson and Wadeson (2018) showed in the example of the internalization theory that it can also apply to EMNEs. The LLL framework combined with knowledge-seeking provides a convincing argument that in the case of EMNEs, additional factors should be considered to analyze their FDI. Thus, to proceed, there

are two options: first, modify the OLI framework to make it applicable to Chinese firms or use these newer theories to explain Chinese OFDI.

1.2. Determinants of FDI

Moving on from the theory of FDI itself, it would be useful to examine what determines the determinants themselves. A popular and straight-forward way to explain why a home country invests in host country FDI is based on the Eclectic Paradigm Theory advanced and created by Dunning (1977). Based on the three advantages outlined in the framework, Dunning comes up with four different categories of determinants that motivate FDI. These are: market-seeking, resource-seeking, efficiency-seeking and strategic asset-seeking, each class having distinct economic variables.

Market-seeking FDI as the name implies is when firms or large organizations (countries) seek to invest due to the host country's market conditions, be it the size or income of the population. The general idea here is that countries with favorable market conditions can attract and offer better returns to all parties involved. Some variables that could be measured to identify the motives for FDI are market size and per capita income, market growth, access to regional and global markets, country-specific consumer preferences, and structure of markets (United Nations, 1998).

Resource-seeking investments are significant when considering Chinese OFDI, specifically in Africa, where resources are one of the main determinants of FDI in the region (Kolstad & Wiig, 2011). The main determinants worth considering here are the availability of raw materials & natural resources, the cost of raw materials and physical infrastructure.

Efficiency-seeking is the type of investment where the home country aims to take advantage of the host country's low cost of labor and other input costs to gain an advantage in the international markets. It is important to point out that not only does the home country usually gain some benefit from these types of investments, but the host countries also have an opportunity to receive financial benefits, but also create new jobs and even support technology/idea transfer. China itself, was used (and still is being used) by the developed countries due to low costs of labor. Acting as the hub for manufacturing, through this gradual process, they were able to retain knowledge and develop their own economy and lift people out of poverty.

The last motive for investment, strategic asset-seeking, the term defined by Dunning (1991) referring to the process of gaining access to resources that complement already

existing conditions. These types of investments are usually seen from the lens of an MNE to gain competitive advantages both domestically and internationally. These determinants will be important, because over time the total amount of OFDI from Chinese state-owned enterprises has been reducing and like-versa the number of investments made by private companies has increased, making strategic asset-seeking more relevant. Main ways to measure these types of investments is to track cross border M&As for specific countries, to measure the availability of unique firm-specific assets (United Nations, 1998).

Even though there are four main reasons for FDI in general, all these motives are in turn influenced by policy frameworks and business facilitation conditions, both in the home and host country. These involve rules regarding entry and operations; general stability; standards of treatment for foreign parties, the level of infrastructure, privatisation policies (United Nations, 1998). To illustrate it further, there might be a host country with the best possible natural resources, yet if the policy framework and the general business environment is poor, it is very unlikely that any investment will be made into that location.

Lastly, to expand a little bit further on the location aspect of the OLI framework, a framework created by Ghemawat (2001) called CAGE differentiates between four different types of distance: cultural, administrative, geographic and economic. Based on further exploration of these ideas, appropriate measures will be adapted to the study. The main contribution by Ghemawat comes from his ability to connect these different concepts of distance to create an intuitive model to understand the importance of distance.

Cultural distance shows differences between norms, values, and language. The idea was first put forward in a book “Culture’s consequences: International differences in work-related values” (Hofstede, 1980). He further stressed the importance of four different dimensions: power distance, degree of individualism, gender roles, uncertainty avoidance (Hofstede, 1991). His ideas have influenced how international business and cooperation is seen in the first place, as in a globalised world, a clash of different cultures is unavoidable. Furthermore, it is an important factor to consider when analysing trade flows, as cultural distance (difference) can alter how firms or countries are able to communicate with each other.

Administrative distance refers to differences or similarities in regulatory, cognitive, and normative institutional environments between the home and host countries (Kostova, 1999). It is mainly looked at to understand the risks involved in the market and how easy it is to do business in the destination market. This means that different institutional systems can have significant effect on international business decisions and thus a measure of some level

of institutional development should be measured in the final model to capture these differences.

Geographic distance, which has been intuitively reflecting the idea that distance is often one of the most basic restrictions to any form of trade, was unable to be proven in theory before the 1960s. The first to prove and introduce a gravity model of trade, which uses geographic distance as one of its main variables was done by Tinbergen (1962). Since then, there have been many developments in the gravity model of trade and geographic distance, and both are still used in economics to this day. Physical distance is still being used as the basic form of distance that should be measured in economics models as it is quite clear how it will influence the outcome of trade.

Lastly, economic distance applies to the differences mainly in economic structures and conditions, such as industry development, income levels and the size of market (Buckley & Casson, 1976). The idea is that economic distance, depending on the home country can have advantageous effects, for example cheaper labor, or it can have a negative effect on trade, which can be seen in the case opposite example of more expensive labor than in the home country. Since then, Ghemawat (2001) has adopted the idea of economic distance to his CAGE network and given more rise to the study of economic distance in economics.

According to Ghemawat (2001) It is fair to assume that all these factors can influence the trade flow between countries depending on their unique circumstances. Thus, for the sake of this paper, relevant aspects of the CAGE theory will be adapted to make the final model more effective.

1.3. Empirical studies on the effects of Chinese OFDI

The selected works for empirical comparison were chosen based on their relevance to the topic and, if possible, to consider different studies with different methodology to consider different approaches to the issue. Some works took a broader focus looking at a larger sample size of countries, and some countries chose to

The most famous and well-known study by Buckley et al. (2007) called “The determinants of Chinese outward foreign direct investment”, where the authors focus on the period between 1984 and 2001. Their study is unique, because they are the first to use the official data from one of the key agencies working on China’s investments processes, the State Administration for Foreign Exchange (Buckley, et al., 2007).

Table 2

Data & Methodology of chosen studies.

Author	Year	Name of the Study	Nr. of variables	Source of Data	Method of analysis	Implications
Buckley et al.	2007	The determinants of Chinese outward foreign direct investment	14	SAFE, WBDI, IMF, CSY,	Panel data (1990-2003), POLS, RE	Natural resources, market size, and political risk drive OFDI
Kolstad & Wiig Casson, M.	2012	What determines Chinese outward FDI?	6	UNCTAD, WBWDI 2008	Time series (2003-2006), OLS,	Institutions and natural resources affect Chinese OFDI
Liu, et al.	2017	The Determinants of Chinese Outward FDI in Countries Along "One Belt One Road"	8	WDI, WBD, IFS,	Panel data (2013-2015), SYS-GMM estimator, FGLS	Exchange rate level, market potential, openness of host countries has a positive effect on OFDI
Wei & Alon	2010	Chinese outward direct investment: a study on macroeconomic determinants	7	SAFE, NBS, MOFCOM, MOST	PLS, Panel data (1987-2006)	Interest rate, exchange rate, import & export, and foreign reserve drive OFDI
Yao, et al.	2017	Location Determinants of China's Outward Foreign Direct Investment	3	MOFCOM,	Gravitation model, Panel data (1991-2009) fixed-effects model	Natural resources drive Chinese OFDI

Source: Compiled by the author

Buckley et al. (2007) took the approach to analyse whether the theory of FDI applied to China's case and if not, what would the edited theory be? They identify three arguments that might explain why the general theory of FDI does not apply: capital market imperfections, the special ownership advantages of Chinese MNEs and institutional factors. Considering these potential imperfections, they come up with different hypotheses they wish to approach in their final econometric model. Instead of taking the general FDI theory and trying to brutally make it for China, Buckley & Casson (1976) instead produced a modified

version of the theory to explain the potential irregularities. Their final econometric model is using the log-linear regression model, which uses fourteen hypotheses, based on different FDI determinants. The regression model is estimated using two different statistical methods, pooled ordinary least squares (POLS) and random effects (RE) generalised least squares method, additionally, in the final part of the data analysis a Lagrangian multiplier test is used to identify that RE method is preferable to the POLS method. Their work finds that several variables, such as natural resources, market size (proximity) have positive effects on Chinese OFDI. Additionally, one interesting observation to point out is that their study finds a link between Chinese OFDI and countries with bad institutions, meaning that political risk does not affect their investments as it affects developed countries.

Additionally, in a study by Kolstad & Wiig (2012), the focus is to test the effect of both natural resources and institutions on Chinese OFDI, because there have been mixed results (Buckley, et al., 2007 and Cheung & Qian, 2009) on the importance of both factors. Based on OLS regression, their results show that there is a negative relationship between institutions and natural resources – the worse are the local institutions, that much more is China incentivised to invest there into natural resources. These findings add on top of Buckley, et al. (2007), but at the same time conflict with the study by Cheung & Qian (2009). There seems to be a relationship between these variables and because the effects are uncertain, this specific relationship might need more data to verify and establish in China's case.

In a study focusing primarily on the One Belt One Road (OBOR) Liu, et al. (2017) uses a wider range of variables (nine) and the combination of their large sample size and a specific focus on a region, provides them a unique perspective into Chinese OFDI. This type of study allows us to make more general conclusions and provide much needed literature in this field. The authors focus on a specific region, which allows them to compare results between different regions (OBOR and non-OBOR). Their findings show that within the OBOR region different determinants are having an effect when compared to outside of OBOR. They find exchange rate level, market potential and openness of host countries have a positive effect on Chinese OFDI and infrastructure facilities have a negative effect in the OBOR region. These findings are interesting and point out why China is such an interesting case in terms of OFDI.

In a different study, Wei & Alon (2010) take a narrower approach, focusing on home country macroeconomic determinants only, their reasoning being that there is not much previous work in the field at that time, thus providing new data for the field. They identify 6

relevant macroeconomic variables, which are used to create hypotheses for the final model. All their data is from the National Bureau of Statistics (NBS) of China and the time is from 1987 to 2006. The authors are using linear regression with partial least square (PLS) method with no dummy variable. Interestingly, their adjusted R-square is 0.933, showing that the final model explains very well that interest rate, export & import, exchange rate and foreign reserve rate affect OFDI in China's case. (Wei & Alon, 2010) The econometric study itself is like the one used by Buckley et al. (2007), however the methodology differs in the sense that Wei & Alon (2010) did not use different methods to verify if their model could have been better in the first place.

In another study, Yao et al. (2017) base their empirical study on the location determinants only. One strength of their work is the fact that they use theoretical background to build up their hypotheses with good reasoning and data, leaving little room for ambiguity. All in all, they come up with 4 different location-based hypotheses, which are presented in their final econometric model, which uses the gravity model of trade. Their study focuses on the 1991-2009 period and their large panel dataset consisting of 132 countries. The model uses the economic mass of China and the host country, a set of variables and a function of resistance factors. (Yao et al. 2017) The benefit of the gravitational model is that it can be used easily to test all the hypotheses separately and it provides relatively clear results. Their whole paper is built up clearly, the theory clearly explains the empirical side and different methods are used to increase the truthfulness of the final model. In the last part of the paper, they additionally test the robustness of the results to verify the results, which is not always the standard practice. In the end, their work reaches the conclusion that natural resources are the primary location based OFDI determinant in China's case.

All the studies take a different approach to interpret Chinese OFDI, ranging from focusing on very specific variables, such as natural resources and institutions (Kolstad & Wiig, 2012) or taking a much broader approach (Buckley, et al., 2007 and Cheung & Qian, 2009). Both approaches have their advantages, taking a narrower approach allows to verify specific relationships without much noise in the data, however the analysis is quite limited. On the other hand, taking a broader approach gives the author more space for analysis, but at the same time increases the possibility that not all relationships are as straightforward and verifiable.

Most of the studies have used either China's State Administration of Foreign Exchange (SAFE) or Ministry of Commerce (MOFCOM) to obtain the necessary data for their dependent and independent variables. Both SAFE and MOFCOM measure FDI

differently, because they adopt different statistical approaches, the former being easier to use with macroeconomic variables and the latter is better to establish the direction of the relationships and to see where the money is exactly going (Huld, 2022). The study by Wei & Alon (2010) used the National Bureau of Statistics of China (NBS) to gain access to relevant annual data that they were looking for, such as interest rate and one of the studies used the United Nations Conference on Trade and Development (UNCTAD) for their data. This last option has only become available since 2003 for China specific information. Nonetheless, it seems that most studies still prefer to use information directly from China's sources. For other variables, popular sources of data are either from World Bank databases or from World Development Indicators (WDI). Other sources of data seem to be more specific and will depend on the point of interest and likely will not be relevant for my study.

Four of the five studies chose regression as their method of analysis, some using PLS, POLS or RE and two of the four studies using two methods simultaneously to remove the likelihood of mistakes. Yao et al. (2017) take a different approach compared to the previous works done in the literature and use the gravity model of trade to create their model and analyse their results. Using this method has a few advantages over the standard regression approaches, providing better explanation how different relationships interact with each other, especially in the case of FDI flows. Three of the selected studies have focused their research on less recent data (between 1987-2009 timeframe) and two of the selected studies have used a bit more recent data, 2013-2015 and 2003-2006, however, both more recent studies use a quite narrow time window (4 years) compared to other studies averaging about 17.5 years. Lastly, all but one study use panel data as their chosen type of data,with only one opting for time-series data.

Based on these previous studies, it seems that most of the relevant data for the current study can be gathered from either SAFE or MOFCOM, and for data outside of China World Bank databases combined with different indicators will likely be sufficient. As one of the aims of this work is to provide more up-to-date research on the topic of Chinese OFDI determinants, it makes sense to adapt more recent data, but, if possible, to look at a wider range than 4 years. For the final model, the easier approach would be to create a standard regression based econometric model, which seems more popular and perhaps a more flexible approach than the gravity model. However, as the gravity model provides better explanations for the relationships between FDI flows and general trade, the economic model will be based on the gravity model of trade. Finally, the ideal range of determinants or variables would be in the range of 4-7 to provide a general, yet most explainable model under the constraints.

Although there are alternative approaches, according to the theory presented in the first section, there is enough evidence and reasoning to base the methodological approach on Dunning (1977) model of the eclectic paradigm. Additional changes should be adopted to make the theory presented more applicable in China's case, which is possible and has been empirically established by Casson & Wadeson (2018).

Finally, based on these empirical works, depending on the type of hypotheses both econometric models can be used, there is not a stark difference in implementation. The more popular approach so far has been to use the regression-based analysis, which may be a reason on its own to use a different model, namely the gravity model for the analysis. Additionally, the gravity model provides some advantages, providing better explanation of the relationships between variables and FDI flows. Furthermore, there are differences between the number of variables chosen for the analysis, based on the current focus of the study, the focus should be to make it as generalisable as possible, thus they should be chosen carefully.

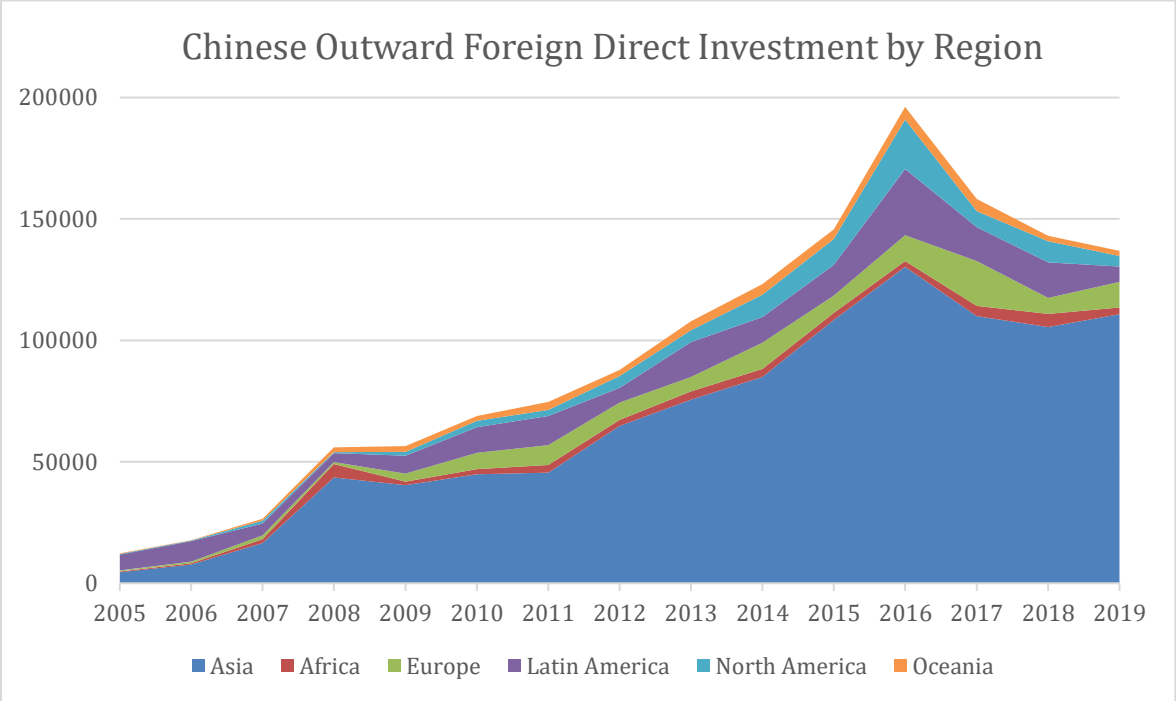
Following from theory, 6 different groups of determinants could be identified, these are: policy, business facilitation, market-seeking, resource-seeking, efficiency-seeking and strategic asset-seeking determinants. Additionally, in the empirical literature several determinants were found to be important and significant. Determinants that were found significant in explaining Chinese OFDI were natural resources, market size, institutions, political stability, interest rate, export & import. By combining both theory and empirics, a final model with 7 independent variables was reached. The idea is to have one type of variable for all the seven different determinants to be able to create a model with as much explanatory power as possible.

2. Empirical study to identify key Chinese OFDI determinants

2.1.Data and Methodology

Figure 1

Chinese Outward Foreign Direct Investment by Region from 2005 to 2019.



*Note one unit refers to 1 000 000 US Dollars.

Source: combined from different reports done by MOFCOM (2020)

Figure 1 provides a simple visual overview of patterns in Chinese OFDI in recent years. One interesting factor directly observable is the fact that most of the other empirical work used as analysis in this study are using data between 2000 and 2010. As can be seen, from 2000 till 2010, the total amount of FDI by the Chinese is roughly four times smaller than between 2011-2019. This is quite an important fact to consider because if the total amount of investment increases by such a considerable margin, it is possible that the determinants or the effects of the determinants can change altogether. This may explain some results in the later parts of the work that do not entirely align with previous empirical studies done in this field. Also, we can see that from 2005 to 2016 there was a general upwards trend in FDI made by China, which surprisingly was unaffected by the global financial crisis in 2008. After reaching an all-time peak in OFDI in 2016, Chinese investments started decreasing to pressure from the domestic regulators to reign in some larger conglomerates

and reduce the leverage of the financial sector by making fewer international deals (Hanemann & M.Huotari, 2017). Since then, the total FDI flows have been decreasing year-to-year and are likely expected to reduce even further due to COVID-19. Moving on, a deeper look into the year 2019 is conducted using the gravity model of trade to better understand the most recent landscape of Chinese OFDI.

The gravity model of trade is an economic framework first developed by Jan Tinbergen (1962), where he showed that the trade flow between any two countries can be estimated using the gravity model. The initial model, as the analogous Newtonian theory of gravitation, used size (in GDP) and proximity as the independent variables. A major criticism at the time was the lack of theoretical foundation to provide a basis for the model that would provide legitimacy to the extraordinary stability of the equation (United Nations; World Trade Organization, 2012).

The first theoretical basis was provided by Anderson (1979) using the Armington assumption, where goods produced in each country are not perfect substitutes for each other no matter the quality of the product itself, creating preferences for consumers. He showed that a country will consume at least a good from every country, meaning that national income is the sum of home and foreign consumption of goods. Furthermore, he showed how trade costs influence the total amount of trade flows, for example, transportation costs reduce the total amount of trade flows.

Subsequent developments have shown that the gravity model can be derived from a range of theories. Bergstrand (1985) showed that a gravity model can be developed based on Paul Krugman's theory of monopolistic competition Krugman (1980), where countries with identical characteristics end up with differentiated goods. Additionally, his model showed that cultural and institutional factors influence the trade flow, expanding the gravity model in the process. Eaton & Kortum (2002) derive their model from the Ricardian model and Chaney (2008) derived it from a theory based on firm heterogeneity and differentiated goods (United Nations; World Trade Organization, 2012).

In its most general form, the multiplicative form of the gravity equation is:

$$X_{ij} = GS_i M_j \varphi_{ij}$$

Where X_{ij} is the monetary value of exports from i to j, G denotes an independent variable (often used as the level of liberalization), S_i represents exporter's factors (most commonly GDP). M_j portray all importer's factors that make up the total import's demand, and finally, φ_{ij} denotes the ease of i to access the market of j (trade costs).

As the simplest form of the gravity equation is in a multiplicative form, the common approach to estimating the equation in practice is to take the natural logarithm of all the variables to obtain a log-linear equation. This results in the following equation:

$$lnX_{ij} = lnG + lnS_i + lnM_j + ln\varphi_{ij}$$

Based on this, the final econometric model consisting of main variables is this:

$$lnX_{ij} = lnGDP_j + lnNatRes_j + lnCost_j + lnTech_j + \ln InfstrucC_j + \ln PolStability_j + \ln Dist_{ij} + BeltandRoad_j + \varepsilon_{ij}$$

Where X_{ij} is the flow of outwards foreign direct investment from China and country j, GDP_j denotes the exporter's GDP per capita income. $NatRes_j$ shows how much the country j is dependent on natural resources from in their total GDP, $Cost_j$ illustrates how effective or cheap is the cost of starting a business in the host country, $Tech_j$ portrays how innovative the host country is based on number of patent applications. $InfStruc_j$ denotes how well both the physical and organizational systems have been built in country j, $Dist_{ij}$ is the physical distance between country i and j, and finally, $PolStability_j$ shows the overall risk of doing business in the host country.

The relationship between the dependent variable and independent variable will be tested using data from the year 2019 and all the countries that China has OFDI flows to.

Additional control variables are added to test different hypotheses and models, which can provide different results.

The dependent variable is the total combined foreign outward direct investment by three combined Chinese actors: China Macao, China Hong Kong, China Mainland. All their separate investments were combined into single flows between all countries in the study. Additionally, the author chose to prefer investments reported by China itself when the information was available, if the information was unavailable or confidential, the information from the destination country was used. In this dataset, there were in total 179 countries, where China had a flow of foreign direct investment in 2019. The data itself is from the Coordinated Direct Investment Survey (CDIS) database (IMF, 2022).

The GDP variable, cost variable and distance variable are from the same database CEPII gravity database (Conte, Cotterlaz, & T.Mayer, 2022). This database provides foreign trade profiles for all countries and collects different data that might be useful to analyze trade. In this case, GDP measures the total size of the economy in thousands of of 2019 US dollars $; the cost variable is measured by the cost of start-up procedures in a destination country, measured by % of total GNI per capita. Distance shows the simple distance in kilometers between the two most populated cities for the pair of countries. Natural resources information

is obtained from the UNCTAD database. In the host country, it is measured by ores and metals, fuels, pearls, precious stones, iron and steel, and non-monetary gold in thousands of 2019 $US dollars in yearly exports (UNCTAD, 2023). Then, this information is divided by the total size of the country's economy (total GDP) to obtain a variable that accounts for the size of the economy. Giving us a final variable that shows how large of a share of an economy's natural resources exports are compared to their total GDP.

The proxy for technological asset seeking was the number of patents created in 2019 by the destination country. This included only patent registrations by residents (not including non-residents). The data originates from the World Intellectual Property Organization (WIPO); however, the drawback is that a limited amount of data is available for each country. Out of the 179 countries that China has invested in, only 90 countries have relevant data for them. This will be considered in later procedures as it limits the number of observations (WIPO, 2023).

For the infrastructure variable, data was taken from the Global Competitiveness Report as the total score of the infrastructure pillar from (0-100) measured as the combination of transport infrastructure and utility infrastructure (World Economic Forum, 2019). There was enough data for 140 countries, which is sufficient for the context of this study. In the broader context, considering infrastructure as a variable is important as it can explain the relationship between the Chinese OFDI and the Belt and Road Initiative.

The last independent variable chosen was Political stability, which is used as a proxy for the level of institutions in the country. As previous literature suggested, institutions are often important determinants of foreign direct investment. In this study, data from World Governance Indicators (WGI) was used, and the political stability and absence of violence/terrorism indicator was chosen as the variable (The World Bank, 2023). The level of political stability is measured on a percentile basis (to what percentage of all the world countries the specific country falls into) from 0-100 basis.

An additional dummy variable was introduced as beltandroad, which is a list of all the countries that participate in the global project. The theory behind this is that as BRI is perhaps the main direct device that China is using to gain influence in the world, there should be a correlation between the dependent variable and being a BRI country. The countries are classified as 1 if they are a part of the project and 0 if not.

All the final variables are then finally taken in a natural logarithm to make it appropriate to use in the context of the gravity model of trade. This only excludes the beltandroad variable as it only has values 0 or 1.

Lastly, a correlation matrix between the variables was created to show if there is any potential for collinearity between the variables. As can be seen, due to the nature of economic variables, a level of correlation is expected between the variables; however, the relationship between Patents and GDP is too strongly correlated, either an alternative variable for GDP will be used, or patents will be kept outside of most models due to the similarity.

2.2.Results and Discussion

Table 3

Regression Results. Chinese OFDI.

VARIABLES	(1) Model 1	(2) Model 2	(3) Model 3	(4) Regression 4	(5) Regression 5	(6) Regression 6
Natural Resources	-0.0185*	-0.0206**	-0.00270		-0.00277	-0.0210**
	(0.00943)	(0.00957)	(0.00365)		(0.00361)	(0.00917)
Infrastructure	-3.117**	-2.998**	-3.727***	-3.613***	-3.745***	-3.081**
	(1.258)	(1.282)	(0.964)	(0.940)	(0.946)	(1.229)
Technology	-0.0448	0.0704				0.0443
	(0.144)	(0.143)				(0.138)
Political Stability	0.387	0.895**	0.771***	0.757***	0.944***	0.687*
	(0.324)	(0.367)	(0.259)	(0.253)	(0.264)	(0.359)
GDP	1.080***		1.027***	1.025***	0.526*	
	(0.216)		(0.120)	(0.109)	(0.280)	
Distance	-0.873**	-0.728*	-1.085***	-1.076***	-0.887***	-0.481
	(0.372)	(0.384)	(0.307)	(0.295)	(0.332)	(0.378)
Belt and Road	-0.144	-0.376	-0.0484		-0.0309	-0.264
	(0.439)	(0.433)	(0.404)		(0.396)	(0.417)
Entry Costs	-0.448***	-0.384***	-0.275**	-0.274**	-0.280**	-0.466***
	(0.139)	(0.142)	(0.120)	(0.119)	(0.120)	(0.139)
GDP per capita		0.951***				0.108
		(0.226)				(0.366)
Trade flow					0.535**	0.875***
					(0.269)	(0.306)
Constant	7.037	4.615	10.52**	9.977**	9.356**	6.605
	(6.034)	(6.388)	(4.731)	(4.377)	(4.649)	(6.160)
Observations	95	90	126	126	120	90
R-squared	0.562	0.550	0.545	0.543	0.572	0.592

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Source: compiled by the author

Table 5 presents the main findings of the empirical study. Six different versions of the model were tested to see which variables were most relevant. The regressions were estimated using

the Ordinary Least Squares regression (OLS). It is important to note, that even though OLS is effective and easy to use when estimating models, where there are many independent variables, this method has the limitation of strictly providing associative relationships. Meaning, that it provides only correlation no causation. Model 4 is used as the final and most accurate model without any noise from nonrelevant variables. Another control variable was added to the model at the last stage of regression to test if adding a trade variable (total exports) would add interesting results.

Regression 1 and regression 2 (column 1 & column 2, Table 6) use all the original variables together, except two of the control variables, the natural logarithm of GDP per capita and trade flow (export from the destination country to China) and the second regression uses GDP per capita instead of total GDP. In the first regression, five independent variables are significant: infrastructure, GDP, natural resources, entry costs, and distance. According to the literature, all these variables are expected to have a statistically relevant relationship with the dependent variable. Thus, based on the first regression, most of the relationships that have been identified are verifiable. Model 1 itself has an R-squared of 0.562, and model 2 has 0.550, meaning that 56.2% and 55.0% of the change in the dependent variable is explained by models, respectively. Based on other works in this field by Buckley, et al. (2007) as well as Kolstad and Wiig (2011) and Liu, et al. (2017), these results for the R-square are well within a normal range of 40-65. Of the five variables, GDP and Entry Costs are the only ones significant at the 99% confidence level, and all others except natural resources are significant at the 95% confidence level, which is significant at the 90% level. It is worth mentioning that even though Political Risk is not statistically significant in the first model, it is significant in the second model; thus, we can expect some relationship between political stability and Chinese OFDI. This connection will be explored more thoroughly in the following parts. Other than model 2 using GDP per capita instead of total GDP, the models have no distinct differences. The second model explains less of the dependent variable, and the values for both distance and GDP are further away from -1 and 1 (in order). A more accurate model should be closer to these values as they have been replicated and verified (Tinbergen, 1962).

Model 3 and Model 4 eject the insignificant variables to show significant relationships as clearly as possible. Model 3 discards the Technology variable, and Model 4 removes natural resources as a determinant. Both models have five significant variables: Infrastructure, Political Risk, Distance, GDP, and Entry Costs. Moreover, they illustrate strong relationships between the independent variables and dependent variable; in the case of

Model 4, three variables (GDP, distance and infrastructure) are significant at the 99% confidence level and two of the variables are significant at the 95% confidence level (political risk and entry costs).

Models 5 and 6 act primarily as controls to test if trade flow (destination country exports to host country) could work as an independent variable in the regression. At first glance, both models provide interesting results with the highest R-squared scores. However, some mixed results can be seen. For example, distance does not even affect Model 6, which should not be the correct outcome. This could be caused by multicollinearity or other factors; thus, we will return to this topic later.

For now, the focus will primarily be on interpreting the results from the first four regressions because they provide some results that should be looked further into. Starting with the variable natural resources, based on the six regressions done, in three, the variable had a statistically significant effect. This is a result well aligned with intuition, and as identified in theory and empirical findings, natural resources are a location-based advantage, and it makes sense for countries to do their foreign investment at least sometimes considering these factors. Confirming this, Buckley, et al. (2007) as well as Kolstad and Wiig (2012), and Yao, et al. (2017) found at least some effect on natural resources in their studies. Because the effects in all these studies were small and sometimes non-existent, there should be a few reasons for this, first, this effect may come out in the case of non-OECD countries that are poorer and perhaps more easily taken advantage of from the point of resource extraction. The studies done mostly focused on using a broader sample size for countries, which could hide some region-specific patterns in the larger sample size. Another reason could be the fact that all three studies above, each of them uses relatively old data (the latest being 2009), mostly 1990-2005 data. This study is using 2019 data, which is significantly more recent and could mean that there have been some slight changes in the patterns of Chinese OFDI. In the context of this work, as the results are inconclusive, it is hard to determine what is the exact relationship between FDI and natural resources. The variable has an effect in Models 1, 2 and 6. However, all these three models are statistically less accurate as they have larger error margins, wider confidence intervals, and in none of them the constant (FDI) itself is statistically relevant. Based on this, either there is a small significant correlation between FDI and natural resources or it could very well be that there is no significant effect anymore at all. Thus, a newer region-specific study could verify these points.

Infrastructure is one of two variables in all 6 models that is statistically significant in every regression. Based on all the results, we can conclude that the variable is statistically

significant at the 99% level, and using Model 4 as a base, infrastructure is associated with a -3.613 effect on the dependent variable. This means that Chinese OFDI will increase by 3.613 when the infrastructure level decreases by 1 or the other way around. This creates an association that countries with higher levels of infrastructure have relatively lower levels of Chinese OFDI. This finding is backed by Liu, et al. (2017) study about countries along Belt and Road and the determinants that affect these countries. They also found that infrastructure had a negative effect on both OBOR (One Belt One Road) countries and non-OBOR countries. Interestingly, out of the six different regressions they ran, infrastructure also had an effect at the 99% confidence interval level. There are strong grounds to believe that infrastructure is a good determinant of Chinese OFDI and why other authors have not included it in their study (Buckley, et al., 2007; Kolstad & Wiig, 2011; Yao, Zhang, Wang, & Luo, 2017).

Patents also did not have a significant effect in any of the regressions, which is somewhat conflicting with other results in the literature. For example, Liu, et al. (2017) found that technology had an effect on non-OBOR countries, and Yao, et al. (2017) found that technology was significant for their base model between 2003-2009, however, at the same time (Buckley, et al., 2007) found no effect for technology as the independent variable. In the case of the first study, their significant effect could perhaps be explained by the fact that they divided countries into two categories (OBOR and non-OBOR) and thus they received an effect for OBOR countries. In the case of this current study, all the countries are divided into the same category, making it harder for the effect to manifest. As was the case with natural resources, another explanation can be due to time, because the second study by Yao, et al. (2017) also used a larger country set with one category. Their data is significantly older, all in all, with moderate confidence we can say that technology was not a significant determinant of Chinese OFDI in 2019.

Political stability was significant in almost all the studies, with an effect of 0.757 in Model 4 at a 99% confidence level, meaning that one unit increase in political risk index (0-100, and 100 is best) is associated with an increase of Chinese OFDI by 0.757 units. These results conflict with the findings of Buckley, et al. (2007) who found that in their earlier models, political stability had the opposite sign (negative), implying that countries with lower levels of political stability attract more Chinese FDI, even though this effect lost its significance in their later models. As the sign for this variable is completely different, further research should be done to verify the exact relationship with the newest Chinese data. It is

possible that this relationship has changed due to Chinese FDI becoming more mature, however, it is difficult to be certain.

Both GDP and distance were highly significant in all the regressions except one (due to multicollinearity) as was expected. These results are easily verified by all the other studies. For GDP, close to 1 positive effect is expected and for distance close to -1 negative effect is expected. Based on Model 4, GDP had an effect of 1.025 at the 99% confidence interval and distance -1.076 at the 99% confidence interval. These results are quite close to what is expected, and with confidence these results and effects are valid. ‘

The control variable added for the Belt and Road Initiative countries had no effect whatsoever in any of the regressions. This is quite a surprising result, considering the agenda China is actively pushing with its grand infrastructure project. One would expect that being an infrastructure project, countries that partake in the project would also receive more Chinese OFDI, but this is not the case at least on the FDI level. The best explanation for this is that China is not simply yet in the stage of using FDI to finance these projects. Instead, these projects are financed by loans made by different Chinese government banks, such as the China Development Bank, Bank of China, Industrial and Commercial Bank of China, and many others (OECD, 2018). As loans are not considered to be part of FDI, it does make sense to not find a correlation between these variables when most of the investments are done in that way. This finding could motivate someone to have a deeper look into this topic, perhaps looking into countries that are further along in their BRI projects and whether they might be starting to attract some Chinese FDI. Because, in theory, establishing favourable relationships between governments might later convert into private capital investments.

The last main variable is entry costs, which is a proxy for business facilitation. Entry costs are also one of the variables that had a significant effect in all six of the regressions. In Model 4, it had an effect of -0.274 at the 99% confidence level, meaning that a decrease of 1 unit in entry costs to start business procedures in the destination country increases Chinese FDI by 0.274. This is quite a logical finding, and it is not exactly measured in other studies. Thus, based on this study and the general theoretical literature, increasing business facilitation should have a positive effect on FDI, which is also demonstrated here by lower entry costs.

Models 5 and 6 were used to test the hypothesis of whether trade flows between countries would help to explain the OFDI coming from China, and if possible, these determinants would instead better work to explain trade instead of foreign direct investment. Trade flow itself shows the annual flow of trade between China and a host country. Both

models are similar except for the fact that model 5 uses total GDP as its measure of economic size and model 6 uses GDP per capita and model 6 does not include technology as one of the determinants. It is widely known that in the case of estimating trade between countries, distance and economic size explain roughly 90% of the change in the dependent variable, thus it raised the question if this connection could also have a meaningful impact on foreign direct investment.

As can be seen from Model 5, when using both total GDP and trade flows in the same regression, the multicollinearity within the model gets bigger, as GDP almost completely loses its effect, which makes sense when looking at the multicollinearity between GDP and trade flows in Appendix A. Instead of GDP, trade shows a similar, but smaller relationship as earlier in the case of GDP, an increase is associated with an increase of 0.535 increase in Chinese OFDI, and the relationship itself is quite strong. However, the issue is that the rest of the model does not give especially relevant results that would give a strong reason to include trade flows in the final model. As direct multicollinearity could be observed between GDP and trade flows, in Model 6, GDP per capita was used instead as they do not have a directly prohibitive relationship between them. Using a different measure for GDP provides more unique results in the final model, however, instead of strengthening existing relationships, they got weaker and, in some cases, disappeared. In the sixth model, both distance and GDP per capita lose their statistical significance and infrastructure's and political stability's effect gets weaker. In the case of infrastructure, the effect moves from 99% confidence level to 95% and political stability moves from 99% confidence interval to 90% confidence level. Interestingly, the effect for natural resources becomes statistically relevant again, but all other effects are either weaker or with bigger standard errors. All in all, the results from model 5 are relatively straightforward, but there still is an issue of GDP not having a strong effect in last two models. This is quite an issue, as per the theory and empirical works, distance and economic size are two of the primary drivers of foreign direct investment. Also, including trade as a variable to the final model increases the R-square by roughly 2%, which is not enough to make a case to keep it in the final model. Perhaps using a different measure for trade could remove the collinearity between distance and GDP, but in the context of this study it is not a necessary endeavour.

Finally, it is possible to say that the chosen determinants were useful in explaining the change in Chinese outwards foreign direct investment. The most accurate results were provided by Model 4, which found statistically significant effects for 5 determinants, and surprisingly natural resources, technology and being a BRI country had no effect whatsoever.

Furthermore, adding trade flows as a determinant does increase the model's capacity to explain the change in OFDI, but the results are harder to interpret due to higher levels of multicollinearity.

Conclusion

The aim of this work was to look at which determinants drive Chinese OFDI based on the most recent available data. Using the theory of FDI and then the theory of determinants both in general and in the case of China, the most important and relevant determinants were found. Based on the four different reasons for FDI from Dunning (asset-seeking, strategic asset-seeking, market-seeking, and efficiency-seeking), in the context of this study, all different indicators were true except strategic asset-seeking as this variable had mixed results in the empiric model. Other than that, Dunning's framework mostly worked in the Chinese context, but it required improvements.

Adding an additional variable in the context of policy frameworks or business facilitation made sense, as Dunning's OLI framework does not capture these. For these, political stability and entry costs were used as proxies, and they both had a significant effect on the final model illustrating that understanding the local environments in the host countries is highly important to understand how FDI moves.

In the context of this study, some interesting results were reached. First, as expected from the literature, GDP and distance had a very clear relationship with the dependent variable, furthermore entry costs, the level of infrastructure and political stability were significant predictors of Chinese OFDI. However, some of the results obtained, such as political stability having an opposite sign when compared to the study by Buckley, et al. (2007), which raises the importance of validating these current results. It could very well be that Chinese foreign investments have had some structural changes over the last 20 years, but as of now, the evidence is still not enough to conclude. The situation is with other variables, such as natural resources. In this study, natural resources had very mixed effects on the dependent variable. It is worth keeping in mind that other authors like Buckley, et al., (2007) as well as Kolstad and Wiig, (2012) had some models, where natural resources did not end up having an effect. However, in the end, their results and effects were more conclusive to point in the direction of natural resources being an important indicator. In this study, the results are leaning more towards natural resources not having an important statistical relevance when considering all the other factors. However, to completely validate this result a separate study looking at countries for example on OECD and non-OECD levels is required (with more up-to-date data.)

Perhaps, one of the most interesting findings of this study is the fact that being a BRI country does not attract additional Chinese OFDI, at least yet. This is rather unexpected and raises the opportunity for further research on this topic. It would be interesting to see if BRI

projects eventually lead to FDI or not. If not, the case for foreign countries associating themselves with China is less beneficial and could have some repercussions for China itself. Here, a more thorough, preferably using panel data for higher quality data and better analysis capabilities would be very beneficial and timely focusing primarily on countries that have already finished some successful projects.

Interestingly, other works analysed in this work did not look intensively into infrastructure as a determinant of Chinese OFDI. The effect found here in this thesis was very significant and indicates that China still follows some interesting investment patterns, as lower levels of infrastructure were associated with higher levels of investment.

But the general trend at least in this study seems to be the fact that China's OFDI is becoming more like the "West" and less as an exceptional case. However, this transition is not complete as the relationship between infrastructure illustrates. There are other factors that still make China a unique case in the context of FDI, but these factors remained outside the scope of this study.

The importance of China is ever-increasing as the relationship between the US and China gets more tense. It is useful to try to understand how China might use its financial capabilities to spread some of its influence in the world. The results achieved in this study are promising and provide quite interesting results, still, further research into the topic is recommended to get a clearer picture of the specifics.

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Appendices

Appendix A. Correlation Matrix of Variables

	OFDI	Infra	Patents	Stability	GDP	Dist	Entry	BeltnR	Trade	NatRes
OFDI	1.0000									
Infra	0.3337	1.0000								
Patents	0.6031	0.5227	1.0000							
Stabilty	0.0868	0.5339	-0.0609	1.0000						
Gdp	0.6764	0.5089	0.8636	-0.0312	1.0000					
Dist	-0.2677	-0.2084	-0.3375	-0.0032	-0.1555	1.0000				
Entry	-0.2720	-0.4125	-0.2129	-0.3947	-0.1197	0.0628	1.0000			
BeltnR	-0.3195	-0.2164	-0.3223	-0.1280	-0.4356	-0.1441	0.1257	1.0000		
Trade	0.6788	0.4496	0.8317	-0.1015	0.9369	-0.2617	-0.0288	-0.3534	1.0000	
Natres	0.1692	-0.0111	0.0623	-0.0589	0.0982	-0.0223	-0.0984	0.0324	0.1203	1.0000

Source: compiled by the author

Appendix B. Determinants and Data

Dependent and independent variables	Proxy	Theoretical justification	Data source
Chinese OFDI	Annual outflow of Chinese FDI to host countries		IMF CDIS
Distance	Distance between home country capital and host country capital	Eclectic paradigm theory	CEPII Gravity
GDP	Size of host country in total GDP	Eclectic paradigm theory	CEPII Gravity
Cost of doing Business	Cost of starting business in host country	Internalisation theory	CEPII Gravity
Technology	Number of patents issued by host country (residents only)	Strategic Asset-seeking	WIPO database
Natural Resources	Yearly natural resources measured as total size of GDP	Asset-seeking	UNCTAD
Infrastructure	Total rating of infrastructure (0-100), compiled of both physical and utility infrastructure	Asset-seeking	World Economic Forum
Political Stability	Absence of terrorism/violence (0-100 scale)	Administrative distance	The World Bank

Source: compiled by author

Resümee

Hiina välisinvesteeringuid mõjutavad tegurid

Simo Järvela

Käesolevas töös alustab autor vaatepunktist, kus Hiina tegevused ja mõju maailmas on aina kasvamas. Kuna välisinvesteeringud on üsna lihtne viis nii Hiina ettevõtete kui ka riigi enda mõju suurendamiseks, vaadatakse siin töös, mis tegurid mõjutavad kui ka selgitavad Hiina välisinvesteeringuid.

Selleks on töö jaotatud kahte suurde etappi, esimene etapp, kus esmalt analüüsitakse erinevaid välisinvesteeringute teooriad, mille abil on võimalik jõuda konkreetsete teguriteni, mis võiksid selgitada just Hiina välisinvesteeringuid. Oluline etapp selles faasis on arusaamine, et Hiina välisinvesteeringud on ajalooliselt ainulaadsed, seetõttu, traditsiooniline teooria ei rakendu Hiina najal üks ühele, vaid vajab mõningaid muudatusi. Tuginedes Dunning (1977) arendatud ekleptilisele paradigma teooriale, mille järgi on kolm välisinvesteeringu põhjust: asukohaeelised, omandieelis ja siseturuloomise eelis. Lisaks uuriti lähemalt teisi välisinvesteeringuid mõjutavaid teooriaid, nagu näiteks Dragon Multinationals (Mathews, 2006) teooria, mille mis on Dunningu OLI teooriale natukene vastanduv teooria, mille järgi arenevate riikide ettevõtete või organisatsioonide välisinvesteeringuid võivad mõjutavad ka vahel teistsugused tegurid, mida ei ole käsitletud OLI raamistikus. Teooria peamine vastanduvus seisneb selles, et organisatsioonid võivad kasutada ka väliseid tegureid, et saavutada konkurentide ees eelis, OLI keskendub eelkõige sisemistele eelistele, mis tulevad organisatsiooni enda poolt välja arendatud eelistest. Seda konkreetset erinevust tuleb arvestada, kuna Hiina kvalifitseerub täielikult Mathewsi teooriale.

Vastavalt OLI teooriale, on Dunning väljatöötanud neli erinevat välisinvesteeringute tegurite kategooriat: turgu otsiv investeering, resursse otsiv investeering, efektiivsusel baseeruv investeering ja strateegilisi varu otsivad investeeringud. Lisaks, kuna eelnevas etapis selgus, et tõenäoliselt on vaja arvesse võtta ka teisi tegureid, siis lähtuvalt Mathews (2006) ja Ghemawat (2001) CAGE raamistikule jõuti veel kolme erineva teguri kategooriani: äritegevust soodustavad tegurid, infrastruktuur ja administratiivne kaugus asukohtade vahel.

Järgmises etapis uuriti lähemalt varasemaid töid, mis on tehtud Hiina välisinvesteeringute kohta, eesmärgiga esmalt kinnitada erinevad kategooriad ning lisaks leida milliseid täpseid tegureid kasutada, et valitud kategooriat mõõta. Selles etapis analüüsiti viite erinevat tööd, mis kasutasid erinevaid meetodeid ja ka tegureid, et analüüsida Hiina välisinvesteeringuid. Peamine leid selles etapis oli see, et esiteks, konkreetsel teemal pole väga

värskete andmetega põhjalikku tööd tehtud ning lisaks saadi kinnitust varasemas etapis väljatulnud kategooriatele.

Lähtuvalt nii teooriale kui ka varasemale kirjandusele antud teemal jõuti töö teises etapis seitsme peamise tegurini, mis võiks selgitada Hiina välisinvesteeringuid: kriitiliste tehnoloogiate omastamine, maavarade rohkus, infrastruktuuri tase, poliitiline stabiilsus, kaugus Hiinast, sihtriigi majanduse kogusuurus ning ettevõtte alustamise ja tegutsemisega seotud protsesside kulukus.

Järgmisena töötati välja vastavalt gravitatsioonimudelile lõplik ökonomeetriline mudel, mis selgitaks võimalikult hästi Hiina välissinvesteeringuid. Empiirilises osas selgus, et seistmest algsest tegurist osutus statistiliselt relevantseks viis tegurit: poliitiline stabiilsus, infrastruktuuri tase, sihtriigi majanduse kogusuurus, kaugus Hiinast ja ettevõtte alguskulud.

Lisaks lisati regressiooni käigus mudelisse kontrollmuutujad, mille eesmärk oli mõõta või leida lisaefekte mudelis. Esimeseks muutujaks oli kategooria “BRI” liikmesriigid, et näha kas liikmesriikidel on suurendatud välisinvesteeringud Hiina poolt, selgus, et mitte. Lisaks lisati muutja mis mõõtis Hiina ja sihtriigi vahelist vahetusvoo suurust, eeldusel, et ehk võib see suurendada mudeli täpsust ja selgitamisvõimet. Erinevate regressioonide käigus selgus, et vahetusvoog tõstab küll mudeli seletamisvõimet, aga kuna vahetusvoo ja majanduse kogusuuruse vaheline korrelatsioon on liiga suur, ei lisa see lõppmudelisse piisavalt väärtust, et seda seal hoida.

Lisaks, kuna mõned leitud tulemused vastandusid varasemast kirjandusest, avanesid uued potentsiaalsed tuleviku tööde suunad, mille abil oleks võimalik konkreetses töös saadud tulemusi valideerida.

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