

DETERMINANTS OF OUTWARD FOREIGN DIRECT INVESTMENT BY ENTERPRISES FROM THAILAND

35132303-9 PIMONPUN KITLUMLUEKUL

FRONTIERS OF BUSINESS STUDY

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Summary

Foreign direct investment (FDI) is one of the principle aspects of global economic integration and the primary drivers of a country's economic growth. For a long time, the source of global FDI used to concentrate mainly in developed nations, but the past decade has witnessed a dramatic increase in FDI outflows from emerging countries. In 2013, developing and transition economies accounted for 39 percent of total outward FDI in the world, up from a mere 12 percent in the beginning of the 21st century, and it is expected that their investment activity will continue to scale up in the foreseeable future. As a result, outward FDI from third world countries has recently generated considerable interest among the public and academic communities.

Conforming to this rising trend, outward FDI from Thailand also demonstrates a significant development during the past recent years. In 2012, Thai FDI outflows amounted to \$12.9 billion USD, surging from slightly over \$0.4 billion USD in 2001. The rapid growth is accompanied by noticeable changes in geographical composition and sectoral distribution of FDI outflows as Thai corporations become increasingly diversified in terms of where to locate their investment and which industry to participate in. With regard to foreign market entry mode, the most prevalent method is greenfield project, although recent years saw a handful of Thai multinationals being active in the global mergers and acquisitions market.

Given the increasing importance of FDI outflows from developing nations and the impressive growth of outward FDI from Thailand, this research thesis set out to analyze influential

factors which determine foreign investment decision made by Thai multinational enterprises. The underlying assumption is that the selection of an optimal location for foreign operations is dependent on the recipient country's characteristics, for instance, size of the market, openness of the economy, natural resource endowment, level of technological development, quality of institutions, and so on. In order to identify the correlation between Thai FDI and the host country's determinants, a number of hypotheses are developed on the basis of the existing literature and are subsequently tested by statistical method. The model covers time series data for thirty five countries and the period of investigation is from 2001 to 2012.

Through the use of a panel data analysis and a regression technique, the result confirms that overall, three main sets of determinants, namely market size, natural resources, and geographical distance significantly influence Thai FDI outflows. In general, Thai enterprises are more likely to locate their investment in countries with large market size, abundant supply of natural resources, and being in close proximity to Thailand. The disaggregate analysis also reveals that Thai firms have transitioned from undertaking mainly market-seeking strategies to the acquisition of stable supply of natural resource in foreign markets.

In addition to host country's market size, Thai outward FDI prior to 2007 is found to be associated with openness to foreign investors and currency depreciation. However, pre-existing imports from the host country to Thailand appears to act as FDI substitution before 2007, since the results point to a negative correlation between FDI and trade relations as measured by bilateral import flows. As for the impact of governing institutions on earlier Thai FDI, the analysis presents contradicting results that Thai investors preferred the location which is characterized by good control of corruption but weak rule of law. From 2007 onwards, there are significantly positive effects of openness to foreign trade and natural resource endowment, but negative effect of per capita GDP on the propensity of FDI from Thailand. In sum, there are both similarities and differences between the determinants of investment activity abroad by enterprises from Thailand and other countries.

The results also verify that Thai investors are particularly attracted by rich countries which are endowed with natural resources, while large market size, openness to international trade, and ownership of natural resources are significant conditions for less developed countries in order to

stimulate Thai FDI outflows. Interestingly, the findings suggest that Thai companies are discouraged by technological advancement in developing economies, indicating that strategic asset seeking FDI are given less priority than market seeking or resource seeking FDI.

Finally, this research thesis not only contributes to a better understanding to the international expansion of Thai enterprises but also provide supporting evidence for the arguments that more specialized theoretical extensions are needed for analyzing FDI from emerging countries. Since traditional FDI theories have been developed from a perspective of advanced economies, these theories do not always hold true in the context of firms from developing countries. Therefore, further in-depth analyses on the topic are necessary in order to offer a complete addition to the current international business literature.

<Inside Cover>

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CHAPTER 1. INTRODUCTION

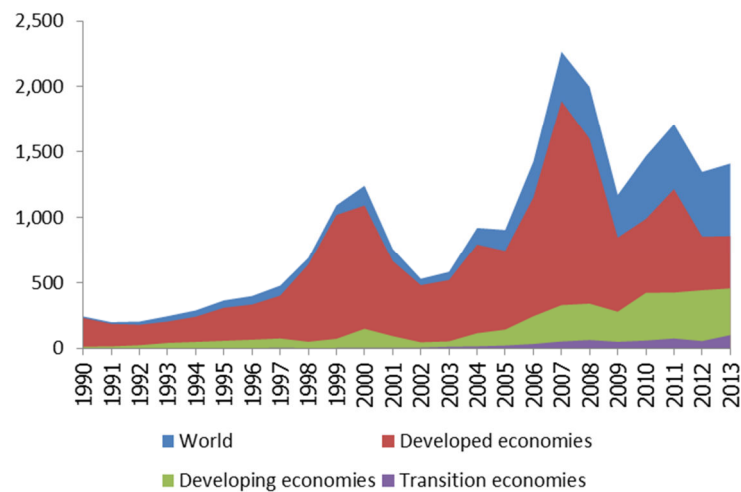
Section 1. IMPORTANCE OF FOREIGN DIRECT INVESTMENT

Foreign Direct Investment⁽¹⁾ (FDI) is widely recognized as an important component of global economic integration and a main driver of economic development in many countries around the world. In general, FDI is thought to bring various economic benefits and accelerate growth in the host country. Borensztein, De Gregorio, and Lee (1998) suggested that FDI contributes to economic growth more than domestic investment while Levine and Renelt (1992) found a positive robust correlation between economic growth and FDI. Specifically, the significance of FDI on economic transformation is much greater for less developed countries (Mallampally & Sauvart, 1999). Apart from it being an addition to the host economy's investible resources and capital formation, FDI is also a means of transferring technological know-how, skills, innovations, and managerial practices across country borders.

Section 2. GLOBAL FDI TREND

Over the last few decades, global foreign direct investment has grown at a phenomenal rate. According to the "World Investment Report 2014" published by UNCTAD (2014), global FDI outflows totaled just under \$241 billion USD in 1990 but the numbers amounted to a record \$2,267 billion USD in 2007. However, due to the global economic downturn and financial crisis, such investments dropped by almost half to \$1,171 billion USD in 2009 before picking up again in 2011 and reaching more than \$1,711 billion USD. Although the figures subsequently declined to \$1,411 billion USD in 2013, total FDI outflows still increased more than seventeen times between 1990 and 2013 (see Figure 1).

Figure 1: FDI outflows, globally and by group of economies, 1990-2013 (in billions of USD)



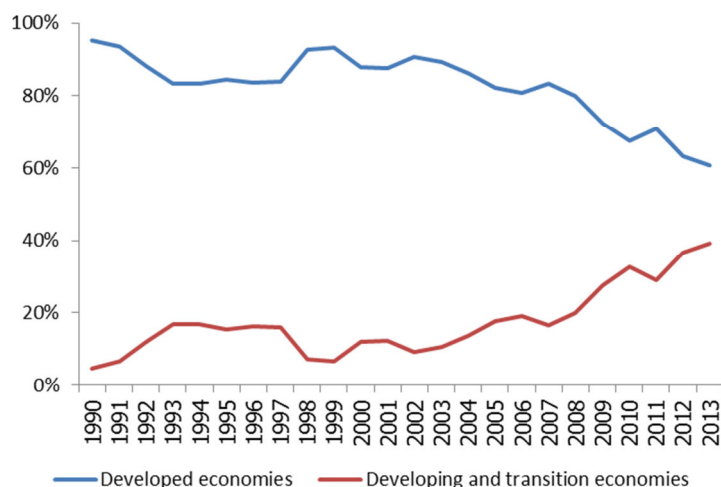
Source: UNCTAD, World Investment Report 2014

Section 3. FDI FROM DEVELOPING COUNTRIES

Interestingly, developing countries have steadily increased their share of global FDI over the past decade. Up until recently, FDI had been traditionally viewed as an exclusivity of highly developed economies since the investment mostly originated from major industrial countries and flowed to less developed ones. Although developed countries are still the primary source of FDI, their dominance is currently on the decline as many developing countries have gradually transformed from a recipient of FDI to a sender of FDI, both in the form of greenfield investments and overseas acquisitions.

Figure 2 shows that the share of global FDI outflows owned by developed economies fell from 95 percent in 1990 to 61 percent in 2013, while that of developing and transition economies remarkably rose from 5 percent in 1990 to 39 percent in 2013. Popular destination countries such as China, Russia, Brazil, Mexico, and India have emerged as a new source of FDI and actively contributed to the rapid increase in global investment flows. Moreover, multinational enterprises (MNEs) from third world countries are becoming players in the global economy and catching up with their western counterparts (Gammeltoft, Pradhan, & Goldstein, 2010).

Figure 2: Share of FDI outflows by group of economies, 1990-2013 (in percentage)



Source: UNCTAD, World Investment Report 2014

Table 1 depicts top ten home economies of outward FDI in 1990, 2000, 2010 and 2013. From the below table, it is visible that developing countries play an increasingly important role in being the source of global FDI outflows. Before the 21st century, the list contained mostly industrialized nations with Japan and United Kingdom taking the leading position in 1990 and 2000 respectively. However, 2010 saw three developing countries; Hong Kong, China and Russia emerge as top contributors of global FDI among other high-income countries. In fact, by 2013, 3 out of 5 economies with highest FDI outflows were developing countries. In particular, China and Russia quickly ascended the ranks as their outward FDI in 2013 almost doubled that of 2010, putting them in the leading spots together with far more advanced economies like United States and Japan.

Table 1: Top investor countries by FDI net outflows in 1990, 2000, 2010, and 2013

Rank	1990	2000	2010	2013
1	Japan	United Kingdom	United States	United States
2	France	France	Germany	Japan
3	United States	United States	Hong Kong	China
4	Germany	Netherlands	Switzerland	Russian Federation
5	United Kingdom	Hong Kong	China	Hong Kong
6	Sweden	Spain	Netherlands	Switzerland
7	Netherlands	Germany	France	Germany
8	Italy	Canada	Japan	Canada
9	Switzerland	Switzerland	Russian Federation	Netherlands
10	Taiwan	Sweden	United Kingdom	Sweden

Source: UNCTAD, World Investment Report 2014

Section 4. SIGNIFICANCE OF THE STUDY

Despite the phenomenal change in global FDI pattern, only a limited number of empirical researches have been made so far on the topic of outward investment from emerging economies, be it into more developed countries or into other developing countries. For a long time, the literature has largely focused on the determinants and impacts of outward FDI from capital-rich developed countries into recipient developing countries. As a result, traditional FDI theories have been developed from a perspective of advanced economies which might not be applicable to emerging country contexts. Therefore, a number of recent studies (Buckley, Tan, & Xin, 2008; Child & Rodrigues, 2005; Filatotchev, Strange, Piesse, & Lien, 2007; Ramamurti, 2009; Zhang & Daly, 2011) suggested that more specialized theoretical extensions are needed for analyzing FDI from emerging economies since these flows may differ from those of developed economies.

The increasing importance of FDI by firms from developing and transition economies was emphasized by the release of UNCTAD's World Investment Report 2006 which highlighted the emergence of these countries as new sources of FDI. The report spurred considerable academic interest in the subject and was followed by a number of rigorous researches into developing countries' investment activities abroad (Gammeltoft, 2008). However, most of the analyses were based on a relatively small number of countries and researches in the area remains far from complete. The discussion has been predominantly emphasized on studies of more advanced developing economies, like South Korea and Taiwan, and other large emerging economies, particularly the BRICs (Brazil, Russia, India and China) (Pananond, 2013). Much less focus has been placed on FDI development from countries in Southeast Asia despite the region's increasing prominence in the global economy as an important source of FDI (Pananond, 2007).

Likewise, the process of globalization of Thai firms through outward FDI has attracted little international attention so far, particularly when compared to the extensive research concerning Thailand's inward FDI. Most studies of FDI related to Thailand focused on the country as a location for FDI from other countries rather than as a source of FDI. This is understandable in the light of the fact that despite its significant increase in recent years, the size of Thai outward FDI still remains

modest in absolute terms especially when compared to the huge flows from other fast-growing economies such as China, India, or Russia. Although Thailand is not yet a major outward investor, it is home to some large MNEs such as Charoen Pokhphand Group (C.P. Group) which recently was ranked 8th on the Forbes World's Most Innovative Companies 2014. Moreover, the rise in Thai FDI is not negligible and the country's significant outward FDI potential is strongly evident (Wee, 2007).

The above-mentioned reasons make it an important case to study the driving factors and locational determinants of Thai FDI outflows. On the subject of outward FDI, Thailand remains insufficiently researched as few empirical studies have been conducted to test the motives behind the presence of Thai multinationals in other countries and more systematic analysis is needed to establish the importance of host country's driving factors for FDI. Therefore, the purpose of this research thesis is to contribute to the better understanding of Thai companies' underlying motivations which influence their overseas investment behavior. Also, analyzing FDI flows from Thailand may provide new insights regarding the internationalization of firms from emerging economies and may present supplemental perspective to the current international business literature.

Section 5. OUTLINE OF THE STUDY

Following this introduction chapter, the remainder of this paper is organized as follows. Chapter 2 draws on various data sources to provide an overview of Thai FDI characteristics, including its relative size, target locations, industries, and entry mode. Chapter 3 offers a review of the relevant literature and outlines the hypotheses to be tested. Chapter 4 describes the methodology adopted and introduces all variables. While Chapter 5 presents the empirical results and discussion, the paper concludes in Chapter 6 with a summary of the main findings and some recommendations.

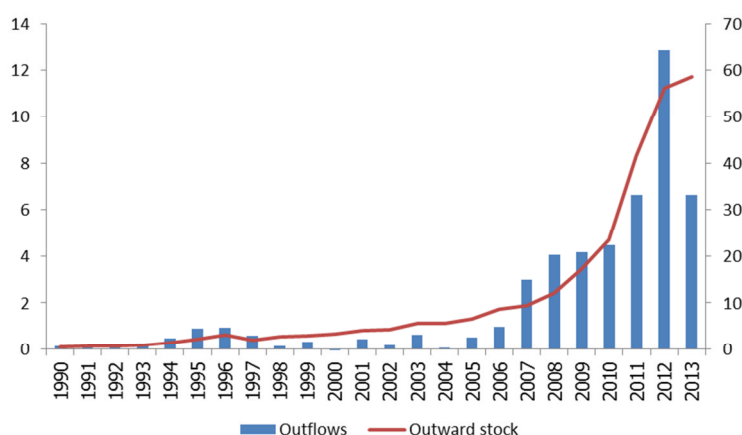
CHAPTER 2. OVERVIEW OF THAI OUTWARD FDI

Section 1. BACKGROUND INFORMATION

Thailand has long been known as a popular destination of global investment. According to UNCTAD's survey conducted in 2012, Thailand was named among the eight priority destinations for foreign investment for the period 2014-2016 (UNCTAD, 2014). The country's attractiveness stems from its strategic location, a skilled workforce, and investment-friendly policies.

However, 2007 witnessed a dramatic increase in overseas investment by Thai enterprises (see Figure 3). In 2012, FDI outflows from Thailand surged to \$12.9 billion USD, hitting the highest on record and making it the eleventh largest source of capital among developing countries. According to UNCTAD (2014), Thailand's outward FDI flows and stock in 2013 were \$6.62 billion USD and \$58.61 billion USD respectively, representing more than tenfold increase when compared to those of a decade ago. The growth in outward FDI from Thailand made the headlines in 2011 when Financial Times reported that "Thailand seems to be behaving more like a developed country than the emerging economy it is: inbound foreign direct investment is shrinking while outbound investment is growing." (Johnston, 2011).

Figure 3: Thailand's outward FDI flows and stock, 1990-2013 (in billions of USD)



Source: UNCTAD, World Investment Report 2014

Section 2. HISTORICAL DEVELOPMENT AND FUTURE OUTLOOK

According to Goldstein and Pananond (2007), Thai FDI outflows have gone through four different phases, namely early development (1977-1988), rapid rise (1989-1997), post-crisis decline (1998-2000), and resurgence (2001-present). In the early period, the low level of overseas investment could be mostly explained by government's restrictive outward FDI policy, including control of foreign exchange, and Thai companies' lack of capability and understanding in conducting business internationally (Wee, 2007).

Later, the financial liberalization policy in early 1990s accounted for the rapid increase in outward FDI until the Asian financial crisis struck Thailand in 1997 (Dacharux, Leelapornchai, & Udomkerdmongkol, 2009). The depreciation of Thai Baht remarkably increased the cost of foreign operations and the slowdown in the home economy forced most Thai firms which had been enjoying international expansion to instead focus on domestic survival (Pananond, 2009). As a result, the rising trend took a sharp downturn and did not recover fully until several years later.

However, starting in 2001, many Thai firms regained their strength and confidence in undertaking overseas investment once again (Goldstein & Pananond, 2007) and since 2005, the outward investment has recovered significantly. The improvement was also consistent with the global trend of increased FDI outflows from developing countries (UNCTAD, 2006).

Going forward, Thailand's FDI outflow is forecasted to reach more than \$18 billion USD in 2020 (Ernst & Young, 2012) as Thai enterprises continue to expand and strengthen their international presence. Over the coming years, many local and regional players will strive to become global players and join the same competing platform with traditional Western multinationals.

Thailand's participation in the ASEAN Economic Community (AEC) set to be established by 2015 is also expected to positively influence Thai outward FDI, according to The Board of Investment of Thailand. Through the required removal of trade barriers, the AEC would certainly open up many interesting opportunities for Thai companies looking to diversify their businesses, find new markets for their products and services, and expand their customer base.

Section 3. THAILAND'S FDI IN A GLOBAL CONTEXT

Although there has been an impressive improvement in Thailand's outward FDI, its absolute value and proportion is still relatively small at the global and regional level. The data in Table 2 help in understanding Thailand's position in the world and relative to neighboring countries as a source of FDI. Between 2008 and 2013, average annual Thai FDI outflows was still a mere 0.4 percent of global share while Southeast Asia accounted for around one-fifth of the total outflows from Asia. Among ASEAN countries, Singapore remains the sub-region leading investor followed by Malaysia, while in the past couple of years, Thailand has surpassed Indonesia to take the third place and increase its contribution to the rising share of ASEAN in the world's total outflows.

Table 2: Comparison of average FDI outflows, 1990-2013

Region/Economy	1990-1995	1996-2001	2002-2007	2008-2013
(a) Average total outflows (in billions of USD)				
World	255.6	775.4	1104.2	1517.9
Developed economies	223.4	690.4	929.0	1060.0
Developing economies	31.6	82.7	153.4	392.1
Asia	25.5	56.2	107.3	280.0
Southeast Asia	5.5	12.6	22.5	50.2
Indonesia	1.0	0.2	2.4	4.6
Malaysia	1.0	1.8	4.3	13.7
Singapore	3.0	10.0	13.5	21.7
<i>Thailand</i>	<i>0.3</i>	<i>0.4</i>	<i>0.9</i>	<i>6.5</i>
(b) Share in total world outflows (in percentage)				
Developed economies	87.4	89.0	84.1	69.8
Developing economies	12.4	10.7	13.9	25.8
Asia	10.0	7.3	9.7	18.5
Southeast Asia	2.2	1.6	2.0	3.3
Indonesia	0.4	0.0	0.2	0.3
Malaysia	0.4	0.2	0.4	0.9
Singapore	1.2	1.3	1.2	1.4
<i>Thailand</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.4</i>

Source: UNCTAD, World Investment Report 2014

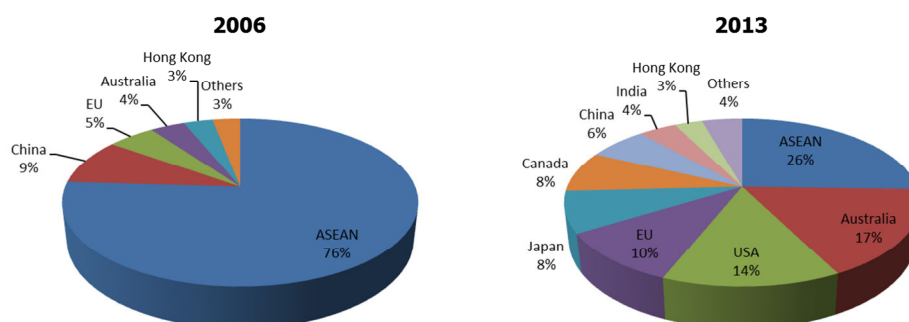
However, it is worth noting that the characteristics of Thai outward FDI are markedly different from those of the top regional investing countries. Unlike the case of FDI outflows from Malaysia and Singapore, where outward FDI has been significantly led by state-owned or

government-linked companies, Thai outward FDI is predominantly a private sector activity (Pananond, 2009) with less government involvement.

Section 4. GEOGRAPHICAL DISTRIBUTION

Over time, Thai enterprises have become more diversified in their locational choices as they continue to expand their investment scope to various target countries. Moreover, it can be seen from the data that Thai direct investment abroad experienced a dramatic shift from developing countries to the more economically developed nations. Figure 4 shows that in 2006, Thai firms geographically focused most of their investments in neighboring Southeast Asian countries as these countries accounted for more than three quarters of total Thailand's outward FDI recorded. However, by 2013, Thai companies have undertaken FDI in over thirty three countries worldwide and the share of investments directed to Southeast Asian nations went down sharply to 26 percent. On the contrary, investments directed to Southeast Asian nations went down sharply to 26 percent. On the contrary, developed countries such as Australia, USA, EU, Canada, and Japan used to host about 9 percent of Thai FDI in 2006, but their total shares increased considerably to 57 percent in 2013. Within Southeast Asia, the countries which consistently received the largest amount of Thai overseas investment are, in order, Singapore, Malaysia, and Indonesia.

Figure 4: Top destinations of Thailand's outward FDI flows, 2006 and 2013

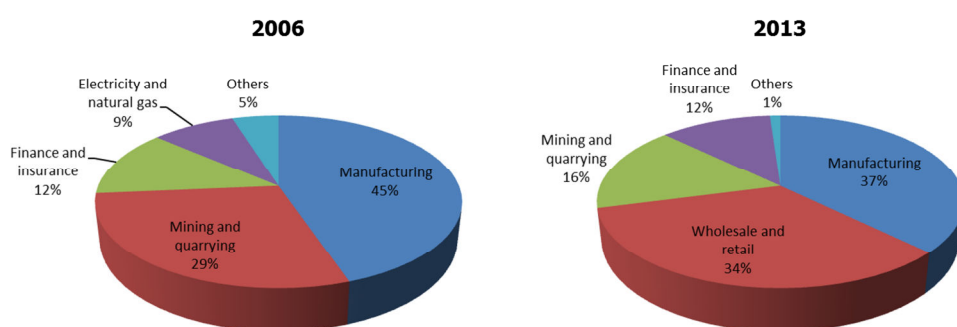


Source: Bank of Thailand

Section 5. SECTORAL DISTRIBUTION

The growth in overseas investment activity has also been accompanied by significant changes in the industrial distribution of Thai overseas investment in recent years (see Figure 5). Thai FDI was concentrated mainly in manufacturing as the sector made up the majority of outward flows in 2006 before dropping to 37 percent in 2013. By contrast, wholesale and retail trade became the second largest sector of Thai FDI in 2013, capturing 34 percent of invested capital. Finance and insurance remained key sector of Thai overseas investment while mining and quarrying's proportion decreased by almost half during the period from 2006 to 2013.

Figure 5: Distribution of Thailand's outward FDI flows by sectors, 2006 and 2013



Source: Bank of Thailand

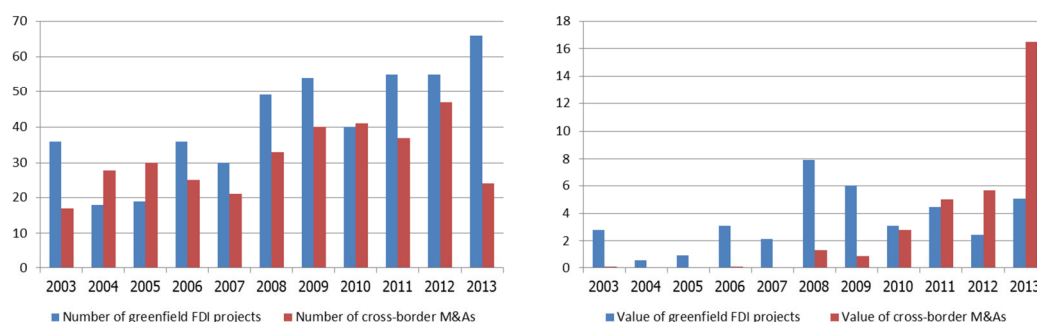
Section 6. MODE OF ENTRY

Regarding the choice of foreign market entry mode, the expansion of Thai outward FDI primarily took the form of greenfield investment. Figure 8 illustrates that except for the year of 2004 and 2005, the numbers of greenfield projects were consistently greater than those of mergers and acquisitions. In addition, the total number of greenfield investments increased significantly from 36 projects in 2003 to 66 projects in 2013 as Thai companies maneuvered their expansion abroad by setting up operational facilities from the ground up.

However, in recent years, mergers and acquisitions of overseas firms have increased in popularity as an alternative foreign market entry mode for Thai multinational enterprises. In particular, the surge in the value of cross-border M&D deals in 2013 could be mainly attributed to

the purchase of 16 percent stake in Chinese life insurer Ping An Insurance for \$9.4 billion USD by Charoen Pokhphand Group (C.P. Group), and the purchase of 62 percent stake in Singapore's Fraser and Neave Asia Pacific Breweries for \$6.9 billion USD by Thai Beverage PCL. Other examples of recent high value deals include the 2010 takeover of Australia's Centennial Coal for \$2.4 billion USD by Banpu PCL, the 2010 purchase of 40 percent stake in Statoil's Canadian oil sands project for \$2.3 billion USD and the 2012 acquisition of London-listed natural gas explorer Cove Energy for \$1.95 billion USD, both by PTT PCL.

Figure 6: Greenfield FDI and cross-border M&A by Thai companies, 2003-2013



Source: UNCTAD, World Investment Report 2014

CHAPTER 3. LITERATURE REVIEW

Section 1. FDI MOTIVATIONS

The topic of foreign direct investment has long been explored and studied intensively by many researchers and scholars, and a number of theoretical frameworks have been developed in an attempt to gain a better understanding of FDI activities by multinational firms. Hymer (1976) provided explanation of FDI as a means of transferring firms' knowledge and other intangible assets to operate internationally. In general, the mainstream perspective in international business assumes that when competing in a foreign market, a multinational corporation is at a disadvantage relative to domestic firms or as called "liability of foreignness". Therefore a foreign firm should possess some tangible or intangible assets which could help it overcome the disadvantages and allow them to secure sufficient return to cover the additional costs and risks associated with operating abroad (Buckley & Ghauri, 1999; Caves, 1971).

One of the most comprehensive and well-known frameworks is the eclectic paradigm of international production (also known as the OLI-Model or OLI-Framework) which was first put forward by John H. Dunning in 1976 and later published in 1993. By integrating all of the main determinants of the international business in general, his theory explained the activities of multinational firms in terms of ownership (O), localization (L) and internalization (I) advantages. The ownership advantages mean that a firm which desires to go abroad should have an advantage, such as superior technology, trademark, reputation, entrepreneurial skills, or other intangible assets, that could be exploited in the foreign market. The localization advantages show that the company should have a reason why locating its production in a host country is a better option than doing so in its home country. Finally, the internationalization advantages state that the firm should have ownerships advantages which are better exploited internally instead of licensing to some other firms in the foreign market. In sum, the greater the advantages of the investing firm, the more it is likely to engage in foreign production.

According to the mainstream international business literature (e.g. Behrman, 1972; Dunning,

1993; Khan, 1986; Wells, 1983), the various motivations for multinational to invest abroad can be classified under five principle categories: resource seeking, technology seeking, market seeking, diversification seeking, and strategic asset seeking. However, it is also possible that a company may pursue multiple objectives from one investment project at the same time, or change its motive for FDI during the course of its international expansion.

Based on the strategic purpose of the investment, FDI can also be classified into horizontal and vertical types. The former refers to the situation when a company duplicates its core activities at the same value chain stage in a foreign market, while the latter occurs when a company moves upstream or downstream in different value chains by dividing the production process and locating each stage of production in several countries. Moreover, the motivation for overseas investment can be characterized as either expansive or defensive. Expansive FDI arises when a company searches for oversea bases from which it can develop overseas markets or obtain necessary raw materials, while defensive FDI takes place when changes in the investment environment at home, such as fierce competition, make domestic investment unfavorable.

Section 2. HOME COUNTRY'S DETERMINANTS

3.2.1. Market Size

Market size has been the single most widely accepted significant determinant of FDI flows (Chakrabarti, 2001) and many studies have found that market seeking motivations appears to be the most robust and important factor driving FDI. In general, most firms invest in search of new market opportunities and a large market is necessary for efficient utilization of resources and exploitation of economies of scale and scope (Chakrabarti, 2001; UNCTAD, 1998). Theoretically, a bigger market is more appealing for foreign investors since the benefits of larger-scale production are more likely to be captured (Culem, 1988). Moreover, researchers agree that more opportunities exist for foreign investors if the market size is large. Lim (1983) found that foreign investors are attracted by market growth as a more rapidly growing economy provides greater profit opportunities than an economy that is growing slowly or not at all. Culem (1988) obtained empirical evidence for the fact that

foreign investors prefer faster growing markets which offer more potential and promising prospects. In sum, a country with a large GDP and a higher rate of GDP growth is expected to attract more FDI.

Market size is usually measured by total GDP or GDP by population, whereas GDP growth rates reflect the country's prospect for economic development. Akin (2009) found that FDI is concerned with the size of market in developing countries not in per capita basis but rather in aggregate size. However, Chakrabarti (2001) stated that absolute GDP is a poor indicator since it reflects the size of the population rather than the income per capita. Regardless, both variables as well as GDP growth are adopted in order to analyze the impact of host market size. To find out whether Thai FDI is driven by market-seeking motive, the following hypotheses are to be tested:

Hypothesis 1a: Thai outward FDI is associated positively with absolute host market size

Hypothesis 1b: Thai outward FDI is associated positively with host market size per capita

Hypothesis 1c: Thai outward FDI is associated positively with host market growth

3.2.2. Trade relations

With regard to how trade relations affect FDI, the literature presents two opposing views. On the one hand, numerous empirical studies suggested that trade (imports and exports) complements rather than substitute for FDI (Asiedu, 2002; Holland and Pain, 1998; Lankes and Venables, 1996; Sahoo, 2006). Firstly, trading provides firms with information on overseas markets such as characteristics of the markets, consumer preferences, government policy and other aspects of legal and institutional framework. With such experiences and insights, firms are likely to undertake direct overseas production in their trading partner markets which they are familiar with (Ranjan & Agrawal, 2011) and when they foresee opportunities and advantages in doing so. Similarly, regional economic integration generally enhances the volume of trade between countries and thus increases the propensity of FDI. In addition, exporting can create outward FDI when firms invest to set up distribution and marketing networks in the host markets to support the entire supply chain.

On the other hand, FDI displaces trade when firms set up subsidiaries in the foreign market instead of exporting. It is a generally accepted belief that firms normally progress from exporting to foreign-based production once the foreign market's demand for a particular export product reaches a

large enough scale. Moreover, firms may also invest abroad in order to overcome trade barriers. When foreign markets are restricted by import protection policies, the desire to access or service the local market normally leads to the replacement of exports by direct investment (Buckley & Casson, 1981; Horst, 1972).

Furthermore, strong trade relations between countries may reduce the incentive for firms to undertake FDI. The presence of regional economic cooperation such as free trade agreements (FTA) promotes trade between partner countries by necessitating reduction of tariff and non-tariff barriers. Since FDI requires substantial capital investment and involves high risk, firms may opt to continue to serve foreign markets through exporting when trade restriction is not an issue. Conversely, when trade barriers make exports difficult and not competitive with respect to domestic goods in a foreign market, FDI must be undertaken in order to circumvent those barriers and to secure foreign market access. This type of FDI is also known as “tariff jumping FDI”.

Still, an improvement in trade relations is expected to generate more FDI into that country. In order to test the impact of trade relations on FDI from Thailand, annual imports and exports between Thailand and the host country is introduced as explanatory variables to capture the intensity of trade relations. Also, the existence of FTA in effect between Thailand and the host country is represented by a dummy variable taking the value of 0 for no FTA and the value of 1 for active FTA. All these variables are expected to act positively on the level of Thai outward FDI. Thus, the hypotheses are:

Hypothesis 2a: Thai outward FDI is associated positively with Thailand's exports to the host country

Hypothesis 2b: Thai outward FDI is associated positively with Thailand's imports from the host country

Hypothesis 2c: Trade agreement between Thailand and the host country increases Thai outward FDI

3.2.3. Economic openness

In general, a higher degree of openness of the economy is expected to be associated with a higher level of FDI activity. Specifically speaking, multinational enterprises (MNEs) will choose to

invest in an export-oriented country rather than a country with closed economy (or low level of openness). Chakrabarti (2001) suggested that the higher the degree of openness of a country to international investors, the more attractive it is likely to be as a destination for FDI. Also, Helpman (1984) found that FDI is often encouraged in more liberal trade regimes, thus the positive relationship is expected between FDI and the openness of the economy.

Since the country's economic openness can be discussed from two perspectives, namely openness to trade and openness to FDI, two explanatory variables are adopted as proxies. The trade ratio, derived from the sum of total export and import values divided by GDP, is proposed as an approximation of the host country's openness to trade. Furthermore, the ratio of inward FDI stock to GDP of the host country is included so as to determine the country's degree of openness to international investment. A positive correlation between outward FDI and the host country's economic openness is hypothesized, thus:

Hypothesis 3a: Thai outward FDI is associated positively with the degree of openness of the host economy to international trade

Hypothesis 3b: Thai outward FDI is associated positively with the degree of openness of the host economy to international investment

3.2.4. Exchange rate

Theoretically, a change in currency exchange rate can have either positive or negative relation with FDI. On the one hand, it was proposed that investors tend to select locations characterized by depreciated currency value. Empirical evidences by Kohlhagen (1977), Logue and Willett (1977), and Stevens (1993) suggested that a weaker currency is more favorable for MNE's investment projects. Since the appreciation of the home country currency leads to higher relative wealth position of foreign investors and lowers the cost of foreign investments in domestic currency units, the investing abroad firms can raise the required capital easier than in the case of home country currency depreciation. As a result, firms from countries with strong currencies are able to support financially their foreign investments in better terms than firms from countries with diminished currency values (Aliber, 1970).

Besides, the home currency appreciation discourages exports but encourage outward FDI. (Kohlhagen, 1977; Logue and Willett, 1977; Stevens, 1993). In international trade, an appreciated currency value makes a country's exports appear more expensive for the resident of other countries and reduce export revenue and profits. Therefore, firms from countries with strong currency are likely to be motivated to choose FDI as their mode of servicing foreign markets since exports would not be competitive.

On the other hand, McCulloch (1989) argued that changes in the level of exchange rate would not alter the decision by a firm to invest in a foreign country. While the appreciation of a firm's home country's currency lowers the cost of investment abroad, the expected nominal return (in host country's currency) goes down as well. Busse (2010) agreed that it is not obvious that exchange rate would have an impact on FDI decisions because costs of setting up a firm and revenues from the investment are denominated in the same currency.

Nevertheless, the mainstream research appeared to suggest that exchange rate is more likely to affect FDI decision because it impacts the real value of an investment when investing and when transferring revenue. In particular, a diminished currency value tends to associate with larger FDI inflows. To test the linkage between currency exchange rate and FDI, the percentage change in host country official annual average exchange rate relative to Thai Baht is used as a proxy of the variable and the hypothesis can be written as:

Hypothesis 4: A relative depreciation of the host country's currency leads to an increase in Thai outward FDI

3.2.5. Inflation

It is arguable that FDI is more likely to flow to a host country with stable and predictable inflation rate. The reason is that rising level of prices for goods and services brings about higher investment risks since it creates uncertainty which impacts corporate planning, particularly in terms of price-setting and profit expectations. For example, the increase in the prices of locally sourced inputs may force the company to either increase its selling price or accept lower margin. High rates of inflation are also a sign of possible currency depreciation, which may cause foreign investors to

suspend their investment as a fall in the value of the host country's currency would reduce the real value of earnings in investing country's currency (Zhang & Daly, 2011). Moreover, foreign investors rely on the government to control inflation and the inability to do so may result in the loss of investor confidence, thereby discouraging FDI to the country.

The hypothesis is that the lower the inflation rate of the host country, the higher the propensity for FDI. Therefore, a negative association between Thai FDI and host country inflation is expected. Thus:

Hypothesis 5: Thai outward FDI is associated negatively with host country inflation rates

3.2.6. Natural resource endowment

Dunning (1993) and Root (1994) agreed that companies may establish foreign subsidiaries to exploit natural resources in order to acquire raw materials for their own industrial operations and secure a continual supply of the needed raw materials. Consequently, Thai firms may invest overseas with the motive to obtain greater security of access to raw materials. Although Thailand has a wide variety of industrial minerals, its resources of most metallic minerals and fuel minerals are small and insufficient. Thus, there is a need to acquire foreign resources in order to make up for the shortage of domestic resources and countries which possess large supply of natural resources are likely to attract more Thai FDI.

The share of fuels plus ores and metals exports in total exports of host country is used to capture the degree of resource-seeking motive. The expectation is that Thai FDI will appear with a positive relationship with host country's natural resource endowment. Thus:

Hypothesis 6: Thai outward FDI is associated positively with host country endowment of natural resources.

3.2.7. Geographical distance

Buckley and Casson (1981) suggested that market-seeking firms are more likely to serve geographically proximate countries through exports and more distant markets via FDI. In addition, Ghemawat (2007) found that firms from emerging economies may invest in countries that are

physically distant because their strategies are based on exploiting differences rather than similarities across countries. In this case, FDI would have positive correlation with geographical distance.

By contrast, greater distance brings about higher risk and higher transactions costs such as transportation, information and communication cost as well as cultural barriers. According to Sodsrichai, Panyanukul, and Pongpatthananon (2011), it is more likely that Thai companies are risk averse rather than opportunity seeking particularly when they are internationalizing. This may result in these firms venturing to host countries that are closer to home in order to benefit from geographical proximity and cultural similarities. Thus, it is predicted that distance discourages FDI and the hypothesis can be written as:

Hypothesis 7: Thai outward FDI is associated negatively with geographical distance from Thailand.

3.2.8. Infrastructure

Fung, Iizaka, Lee, and Parker (2000), Loree and Guisinger (1995), and Mody and Srinivasan (1998) indicated that there is a positive effect of infrastructure on attracting FDI. In general, well-functioning infrastructure is essential and fundamental for business operations. Thus, it can be argued that well established and advanced infrastructure facility attracts FDI as it depicts the prosperity of the country and provides more appealing environment for any company to operate in. Moreover, good infrastructure increases the productivity of investments and reduces operational downtime. Therefore, FDI and the level of infrastructure development of a country are expected to show a positive relation.

The percentage of individuals having access to the Internet in the host country is used as an approximation for infrastructure since the Internet has increasingly become an indispensable and vital tool in conducting business nowadays. This is especially true in the case of international ventures which require effective communication and information transmission across borders. Infrastructure is predicted to have positive effect on FDI, thus the hypothesis is:

Hypothesis 8: Thai outward FDI is associated positively with host country level of infrastructure development.

3.2.9. Institution

In new institutional theory, the institutional environment is defined as those fundamental political, social, and legal ground rules that establish the basis for production, exchange, and distribution (Davis & North, 1971), outlining the conditions under which business occurs (North, 1990). Kaufmann, Kraay, and Mastruzzi (2004) constructed six measurements of governance's quality from a definition of governance as the traditions and institutions by which authority in a country is exercised. The six composite indicators are voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption.

Based on the above mentioned indices, good governments are characterized by political stability, a high quality of the bureaucracy (measured by government effectiveness), a set of regulatory policies that encourage foreign trade and business development (measured by regulatory quality), a high degree of protection of property rights (measured by the rule of law) and an efficient control of corruption. On the contrary, weak institutions are measured by political instability, bureaucratic and judicial hurdles, issues of property rights and enforceability of contracts, and severe problem of corruption.

The quality of the country's institutions defines its investment climate and business environment, which is arguably one of the most important determinants of FDI. Blonigen (2005) suggested that countries with institutional environments that provide strong political, social, and legal institutions are more preferable as an investment destination because of the lower risks and costs associated with business activity. Anghel (2005) presented supporting evidence that countries whose governments are highly ranked according to various indices of the quality of institutions tend to do better in attracting foreign direct investment, while inefficient or weak institutions make the host country less attractive for any type of FDI. Wei (2001) analyzed a linkage between the structure of capital flows to a country and its degree of corruption and found that a corrupt country receives substantially less FDI. A number of empirical studies of total FDI flows also documented a positive relationship to host country institutions (Asiedu, 2006; Gani, 2007; Globerman & Shapiro, 2002;

Harms & Ursprung, 2002; Wei, 2000).

This analysis employs three institutional variables from the World Bank Governance Indicators which measure the level of governance in 200 countries. First, the Political Stability index reflects “perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism.” The second indicator is the Rule of Law index which measures “perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence”. Lastly, the Control of Corruption index reflects “perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as ‘capture’ of the state by elites and private interests.”

The index runs from -2.5 to 2.5, with higher numbers signifying better institutions. The expectation is that improved institutional qualities, measured by any of the above mentioned indices, positively affect the amount of FDI that the country receives. Thus:

Hypothesis 9a: Thai outward FDI is associated positively with host country level of political stability

Hypothesis 9b: Thai outward FDI is associated positively with host country level of rule of law

Hypothesis 9c: Thai outward FDI is associated positively with host country level of control of corruption

3.2.10. Technological capability

The search for strategic resources and capabilities is now recognized as another major driver of FDI (Deng, 2007). Multinationals from emerging countries are most likely to invest in developed countries in order to tap into sophisticated technology and to compensate for their competitive disadvantages (Monkiewicz, 1986; Pananond & Zeithaml, 1998). Child and Rodrigues (2005), Luo and Tung (2007), and Yiu, Lau, and Bruton (2007) proposed that firms from emerging markets tend to engage in OFDI in order to acquire strategic assets to augment the ownership advantages that they

lack. Luo and Tung (2007) argued that MNEs from emerging countries use outward investments as a springboard to acquire strategic assets to enhance their competitive advantages. When investing in developed countries, these firms seek advanced manufacturing know-how and sophisticated technology in order to be able to compete more effectively in the global marketplace.

Therefore, if Thai firms, in an effort to enhance their competitive advantage, use FDI as a mean to acquire strategic resources such as technological know-how and management expertise which are limited in the home country, their investment should flow to industrialized countries or advanced foreign economies with high levels of human and intellectual capital. The number of patents issued in the host country is used to approximate the ownership advantage endowment and it is expected to relate positively with Thai FDI. Thus:

Hypothesis 10: Thai outward FDI is associated positively with host country technological capability

CHAPTER 4. METHODOLOGY

Section 1. RESEARCH QUESTION AND HYPOTHESES

To summarize, the following research question and hypotheses are developed;

Research question: What are the host country determinants of Thai outward investment?

Hypothesis 1a: Thai outward FDI is associated positively with absolute host market size

Hypothesis 1b: Thai outward FDI is associated positively with host market size per capita

Hypothesis 1c: Thai outward FDI is associated positively with host market growth

Hypothesis 2a: Thai outward FDI is associated positively with Thailand's exports to the host country

Hypothesis 2b: Thai outward FDI is associated positively with Thailand's imports from the host country

Hypothesis 2c: Trade agreement between Thailand and the host country leads to an increase in Thai outward FDI

Hypothesis 3a: Thai outward FDI is associated positively with the degree of openness of the host economy to international trade

Hypothesis 3b: Thai outward FDI is associated positively with the degree of openness of the host economy to international investment

Hypothesis 4: A relative depreciation of the host country's currency leads to an increase in Thai outward FDI

Hypothesis 5: Thai outward FDI is associated negatively with host country inflation rates

Hypothesis 6: Thai outward FDI is associated positively with host country endowment of natural resources.

Hypothesis 7: Thai outward FDI is associated negatively with geographical distance from Thailand.

Hypothesis 8: Thai outward FDI is associated positively with host country level of infrastructure development.

Hypothesis 9a: Thai outward FDI is associated positively with host country level of political stability

Hypothesis 9b: Thai outward FDI is associated positively with host country level of rule of law

Hypothesis 9c: Thai outward FDI is associated positively with host country level of control of corruption

Hypothesis 10: Thai outward FDI is associated positively with host country technological capability

Section 2. DATA SAMPLE

In order to analyze the determinants of international location decision made by Thai firms, the data have been garnered from various publicly available data base. The sample covers thirty five countries⁽²⁾ which were host to Thai FDI over 12-year period between 2001 and 2012. Each observation thus pertains to a bilateral FDI relationship between Thailand and the respective country for a given year.

Section 3. DEPENDENT VARIABLE

The dependent variable is annual outward FDI flows from Thailand in millions of constant 2005 USD. The list of countries⁽³⁾ which received FDI from Thailand is obtained from UNCTAD (2014). The choice of years is basically determined by the availability of bilateral FDI figures, for which UNCTAD has the official data from 2001 to 2012.

Although there is yet a general consensus on the appropriate measurement of FDI⁽⁴⁾, this study adopts FDI outflows as the dependent variable. The reason for the selection to measure FDI in terms of flows rather than stocks is that annual variations in FDI stock may not be apparently visible, especially in relation to an absolutely large base value of accumulated FDI which represents

long-time ongoing investment activities. Therefore, it is assumed that FDI behavior can be more comprehensively measured for flows than for stocks. And because Thailand is the only investing country under study, FDI flows can be used without adjusting for the size of investing countries, which is the case when several of them are concerned.

Section 4. INDEPENDENT VARIABLES

Base on the previous discussion in Chapter 3, a relatively standard set of macroeconomic measures is employed, including host country GDP, GDP per capita, annual GDP growth, imports and exports between Thailand and the host country, a dummy for the existence of a bilateral or regional trading agreement, that is, a free trade agreement, ratio of foreign trade value to GDP of host country, ratio of inward FDI stock to GDP of host country, exchange rate variation, and inflation rate. Furthermore, ratio of fuels, ores and metals exports to total exports, geographical distance, and percentage of individuals using the Internet are incorporated to measure host country's level of natural resource endowment, location proximity, and infrastructure development, respectively. Indicators for institutional development are included as well, namely index of political stability, rule of law, and control of corruption. Finally, number of patents issued in each year is adopted as a proxy for host country's technological capability. All of the independent variables are assumed to influence the dependent variables and the expected type of correlation (negative or positive) is listed in Table 3. All monetary values are adjusted to constant 2005 prices using GDP deflator in order to allow for comparison across time.

Section 5. MODEL FUNCTION

Denoting the host country by i and the year by t , the estimated equation used in this study can be written as follows:

$$FDI_{it} = f(\ln GDP_{it-1}, \ln GDPC_{it-1}, \ln GDPG_{it-1}, \ln EX_{it-1}, \ln IM_{it-1}, FTA_i, \ln TR_{it-1}, \ln INS_{it-1}, \ln FOREX_{it-1}, \ln CPI_{it-1}, \ln EXORE_{it-1}, \ln DIST_i, \ln INT_{it-1}, \ln PSTA_{it-1}, \ln RLAW_{it-1}, \ln CCOR_{it-1}, \ln PAT_{it-1})$$

Table 3: The determinants of Thai outward FDI

Factor		Proxy	Expected Sign	Data Source
FDI (dependent variable)	lnOFDI	Annual Thailand's outward FDI flows to host country	n/a	UNCTAD
Host market size (H1a,b,c)	lnGDP	Host country GDP	+	World Bank; IMF; UN
	lnGDPC	Host country GDP per capita	+	
	lnGDPG	Host country annual GDP growth	+	
Trade relations (H2a,b,c)	lnEX	Thailand's exports to the host country	+	Bank of Thailand; Asian Development Bank
	lnIM	Thailand's imports from the host country	+	
	FTA	=1 when there is a trade agreement in effect between Thailand and the host country	+	
Economic openness (H3a,b,c)	lnTR	Ratio of foreign trade value to GDP of host country	+	WTO; UNCTAD
	lnINS	Ratio of inward FDI stock to GDP of host country	+	
Exchange rate (H4)	lnFOREX	Change in host country official annual average exchange rate relative to THB	-	World Bank; OzForex
Inflation (H5)	lnCPI	Host country annual inflation rate (consumer price index)	-	World Bank; Taiwan National Statistics; Index Mundi
Natural resources (H6)	lnEXORE	Ratio of fuels, ores and metals exports to merchandise exports of host country	+	WTO; ASEANstats
Geographical distance (H7)	lnDIST	Distance between host country's capital city and Thailand	-	CEPII (GeoDist Database)
Infrastructure (H8)	lnINT	Percentage of Individuals using the Internet	+	International Telecommunication Union
Institution (H9a,b,c)	lnPSTA	Political Stability index	+	Worldwide Governance Indicators
	lnRLAW	Rule of Law index	+	
	lnCCOR	Control of Corruption index	+	
Technology (H10)	lnPAT	Total (resident plus non-resident) annual patent grants in host country	+	World Intellectual Property Organization; Taiwan Intellectual Property Office; ASEAN Intellectual Property Portal

Details of the variables and proxies used as well as data sources are explained in Table 3. The model is consistent with all the hypotheses formulated as well as corresponds to the usual specification of the models of FDI determinants consistently applied to analyze FDI by other studies.

All explanatory variables are lagged by one period to allow for the independent variables taking time to influence investment behavior. Since the process of evaluating and implementing investments abroad is time consuming, firms cannot react immediately and instantaneously to changes in the environment. Thus, the assumption is that FDI reacts to these explanatory variables only with a lag. Therefore, the model function considers the predictor variables in a one-year lagged form given the long-run nature of FDI.

The model is specified such that all variables except dummy are measured in logarithms, with the coefficients measuring the elasticity. The data are transformed into natural logarithms in order to reduce the skewness of the data as we expect non-linearities in the relationships on the basis of theory and previous empirical works. To retain zero and negative values, the inverse hyperbolic sine (IHS) transformation is used and it can be expressed as:

$$ihs(x) = \ln(x + \sqrt{x^2 + 1})$$

Where x represents the variable of interest and $ihs(x)$ represents the transformed version of the variable of interest. The IHS transformation was first introduced by Johnson (1949) and has since been incorporated in many recent literature such as those of Berger, Busse, Nunnenkamp, and Roy (2013) and Friedline, Masa, and Chowa (2015). This transformation not only adjusts for skewness and keeps the zero and negative observations, but also preserves the value property by leaving the sign of x unchanged.

Section 6. STATISTICAL METHOD

A random effects model is employed on the panel data set consisting of 376 observations to identify the relationship between Thai FDI and the above mentioned determinants. Using the ordinary least square (OLS) estimation method might provide biased and inefficient estimators

because of the unobserved heterogeneity among the sample countries, while the panel data analysis technique can be applied to examine cross-sectional and time-series effects properly. These effects may be fixed or random, however, the fixed effects model is considered unfit because the estimator includes FTA dummy variable and distance variable, which are constant and do not change over time. Due to this nature of the dataset, the random effects model is considered more appropriate than a fixed effects model. The use of statistical technique in this research is also consistent with that of the study by Buckley, Clegg, Cross, Liu, Voss, and Zheng (2007) which analyzes the determinants of Chinese outward foreign direct investment. Finally, the data analysis was carried out by using the statistical software STATA version 13.

CHAPTER 5. RESULTS AND DISCUSSION

Table 4 presents results from the correlation matrix between Thai outward FDI and all explanatory variables used in the model. The highest positive correlation (0.24) is found between the dependent variable and the dummy variable for regional economic integration (FTA) while the lowest positive correlation (0.08) occurs between the dependent variable and openness to FDI (lnINS). In terms of negative relationships, the highest (-0.26) is that between the dependent variable and distance (lnDIST) and the lowest (-0.03) is that between the dependent variable and the number of patents granted (lnPAT).

The analysis results are reported in Table 5. The first column of the table shows estimation results for the full sample of thirty five countries for which data are available. In the second and third column, the sample is split into two subsamples of 2001-2006 and 2007-2012. Finally, the last two columns present the results when rerunning the main estimation for OECD and non-OECD countries, of which there are seventeen and eighteen countries in the sample respectively.

Section 1. DETERMINANTS OF THAI OUTWARD FDI

Looking at the first estimation result (column 1) which includes all observations in the sample set, the three explanatory variables found to be significant and correctly signed are absolute host market size (lnGDP), natural resource endowment (lnEXORE), and geographical distance (lnDIST), while the rest of the predictor variables are all insignificant. These findings support the expected relationships in terms of sign and statistical significance stated in Hypothesis 1a, 6, and 7 and are discussed in more details below.

Firstly, absolute host market size, as measured by GDP, positively influences Thai FDI outflows. This result suggests that increased size of the domestic market results in more FDI inflows and Thai firms are driven by market-seeking motives when they internationalize. However, the other alternative measures of host market size, namely GDP per capita and GDP growth, do not attain significance during the period under study. It can be implied that Thai companies pay more attention

to total current market size when they evaluate locational choices but they are less concerned about the market size in per capita basis which is less obvious, or about future market growth which is uncertain. Nevertheless, the evidence that larger host market size is associated with increased FDI is consistent with the general literature, implying that Thai MNEs are market seekers just like the majority of firms from other countries.

Table 4: Correlation matrix

	lnOFDI	lnGDP	lnGDPC	lnGDPG	lnEX	lnIM	FTA	lnTR	lnINS
lnOFDI	1								
lnGDP	-0.0388	1							
lnGDPC	-0.1974	0.5196	1						
lnGDPG	0.1006	-0.2602	-0.4446	1					
lnEX	0.2318	0.5699	0.0327	0.0240	1				
lnIM	0.1626	0.6084	0.1995	-0.0371	0.8634	1			
FTA	0.2403	-0.2678	-0.5382	0.3008	0.3202	0.3341	1		
lnTR	0.1220	-0.3581	0.1688	0.0678	-0.0425	-0.0730	-0.0293	1	
lnINS	0.0751	-0.2880	0.3153	-0.1077	-0.1833	-0.2344	-0.1881	0.6381	1
lnFOREX	-0.0761	0.0677	0.1848	-0.1474	-0.0602	0.0246	-0.0303	-0.0137	0.0199
lnCPI	0.0868	-0.2259	-0.4307	0.3662	-0.1232	-0.1760	0.1135	-0.1050	-0.1218
lnEXORE	0.1088	-0.0366	0.0798	-0.0089	-0.0931	0.0585	0.1330	-0.0287	0.0605
lnDIST	-0.2589	0.6438	0.7395	-0.3814	-0.1500	-0.0517	-0.7065	-0.2521	0.0314
lnINT	-0.1011	0.5484	0.8965	-0.4178	0.1479	0.2592	-0.4419	0.2288	0.2894
lnPSTA	-0.1483	0.2402	0.8822	-0.3660	-0.1000	0.0488	-0.4500	0.3303	0.4339
lnRLAW	-0.1683	0.5459	0.9462	-0.4163	0.0615	0.1785	-0.5247	0.1443	0.3340
lnCCOR	-0.1505	0.4996	0.9430	-0.4054	0.0833	0.1978	-0.5179	0.1953	0.3901
lnPAT	-0.0345	0.8926	0.5327	-0.2103	0.5417	0.6089	-0.1630	-0.1572	-0.2820

	lnFOREX	lnCPI	lnEXORE	lnDIST	lnINT	lnPSTA	lnRLAW	lnCCOR	lnPAT
lnFOREX	1								
lnCPI	-0.2216	1							
lnEXORE	0.0075	0.1870	1						
lnDIST	0.1352	-0.1650	0.1402	1					
lnINT	0.1129	-0.3542	0.2101	0.6696	1				
lnPSTA	0.1989	-0.4566	0.0808	0.5366	0.7867	1			
lnRLAW	0.1961	-0.4368	0.0634	0.7359	0.8709	0.8573	1		
lnCCOR	0.1990	-0.4467	0.0372	0.6869	0.8356	0.8680	0.9749	1	
lnPAT	0.0680	-0.2941	0.0682	0.5312	0.6239	0.3193	0.5684	0.5021	1

Table 5: Results for the determinants of Thai outward FDI

	REs	2001-2006	2007-2012	OECD	Non-OECD
	(1)	(2)	(3)	(4)	(5)
lnGDP (H1a)	0.9686 ** (0.3891)	0.8427 * (0.4697)	0.6605 (0.7289)	-0.3418 (0.9746)	1.5334 *** (0.5383)
lnGDPC (H1b)	-0.7489 (0.4599)	-0.5844 (0.5536)	-1.4231 * (0.7772)	2.8538 (1.9878)	-0.3079 (0.7463)
lnGDPG (H1c)	-0.0865 (0.1377)	-0.0195 (0.2122)	-0.1423 (0.2073)	-0.2390 (0.2211)	-0.1317 (0.2108)
lnEX (H2a)	0.2292 (0.2555)	-0.0051 (0.3347)	0.1483 (0.4058)	0.0225 (0.5072)	0.3790 (0.5236)
lnIM (H2b)	-0.2660 (0.2111)	-0.4651 * (0.266)	0.0256 (0.3732)	0.3428 (0.529)	-0.3696 (0.3095)
FTA (H2c)	0.2655 (0.5548)	1.0571 (0.6868)	0.0979 (0.9531)	-0.1222 (1.8525)	-0.0677 (0.796)
lnTR (H3a)	0.6514 (0.468)	-0.2540 (0.5532)	1.4974 * (0.7996)	0.7888 (0.9264)	2.0725 ** (0.8727)
lnINS (H3b)	0.3088 (0.2846)	0.8833 ** (0.3609)	-0.0749 (0.4774)	0.0971 (0.6293)	-0.2811 (0.4841)
lnFOREX (H4)	-0.0559 (0.0711)	-0.1358 * (0.075)	0.0957 (0.1337)	-0.0995 (0.0987)	-0.0198 (0.1201)
lnCPI (H5)	0.1049 (0.1839)	-0.1211 (0.1972)	0.1787 (0.3732)	0.1762 (0.407)	0.0996 (0.2344)
lnEXORE (H6)	0.5923 *** (0.1939)	0.2662 (0.2607)	0.5530 * (0.316)	0.8747 * (0.5002)	0.8149 ** (0.3315)
lnDIST (H7)	-1.2269 ** (0.6194)	-0.9721 (0.7925)	-0.5078 (1.087)	-0.4048 (2.2551)	-1.2608 (0.9448)
lnINT (H8)	0.2084 (0.3141)	0.5424 (0.4025)	-0.6043 (0.6426)	-0.2688 (1.032)	-0.2051 (0.4528)
lnPSTA (H9a)	0.5387 (0.5597)	0.4537 (0.601)	1.0954 (1.0426)	-1.0593 (1.5418)	0.8461 (0.7615)
lnRLAW (H9b)	-0.9479 (1.1554)	-3.3623 ** (1.3118)	1.3884 (1.9949)	-1.6309 (3.1085)	-0.4355 (1.481)
lnCCOR (H9c)	1.0702 (0.9689)	2.1746 *** (1.1075)	0.4693 (1.6652)	1.4329 (2.1895)	-0.1036 (1.7091)
lnPAT (H10)	-0.1439 (0.1378)	0.2161 (0.1805)	-0.1136 (0.2709)	0.4318 (0.4394)	-0.3789 *** (0.2269)
_cons	1.17482 5.9912	1.32639 7.19894	3.98883 10.0904	-33.338 25.7632	-11.9684 10.7063
N	376	181	195	196	180
R-sq	0.1820	0.3033	0.1690	0.1209	0.2312

Notes: Standard errors are in parentheses

***, ** and * indicate that the coefficient is significant at the 1, 5 and 10 percent levels, respectively

Moreover, the country's exports of natural resources as a share of total exports is found to have a highly significant and positive effect on Thai FDI, thus hypothesis 6 is also supported. This provides evidence for the existence of resource-seeking motive and it can be seen that Thai outward FDI is attracted to country with large reserves of natural resources. As previously mentioned, Thailand's reserves of most metallic minerals and fuel minerals are limited and insufficient. It is obviously true in the case of fuel resources since the significant portion of the country's oil consumption is currently being imported from foreign countries. The result that ownership of natural resources is a necessary condition for the host countries to attract FDI from Thailand is also in line with the arguments presented by most literature which have consistently found a positive role of natural resource endowment in attracting FDI.

By contrast, geographical distance has a negative influence on Thai FDI outflows. This indicates that location proximity between Thailand and the host country is another significant determinants affecting overseas investment decision as Thai firms are more likely to invest in nearby countries than in distant markets. Thus, hypothesis 7 is accepted as the result points to a negative correlation coefficient. This is again in accordance with the conventional prediction that firms are more likely to invest in host countries that are close to home.

However, the intensity of trade relations, the degree of host country's economic openness, the change in foreign exchange rate, inflation rates, and the quality of infrastructure, institutions, and advanced technology turn out to be insignificant. Since the results do not provide any evidence to support the interdependence between Thai FDI and these variables, it is inconclusive whether Thai FDI is influenced by these characteristics of recipient countries.

Section 2. CHANGES OVER TIME

In order to find out whether there has been any change in the significance of Thai FDI determinants during the period under study, the data are divided into two time periods; from 2001 to 2006 and from 2007 to 2012. The assumption is that FDI motivation might not remain the same over time as a company becomes more experienced investor through increased international operations.

In addition, the year 2007 saw a change in Thailand's monetary policy to more relaxed controls on capital outflows⁽⁵⁾, thus it is considered as one of the important milestones in the evolution of Thai outward FDI. The results are presented in column 2 and 3 of Table 5 which show a vast difference. This seems to confirm that Thai FDI has changed in characteristics over time and requires further discussion.

5.2.1. The first period (2001-2006)

During 2001 and 2006, absolute host market size (lnGDP), openness of host country to FDI (lnINS) and control of corruption (lnCCOR) appear to have a significant and positive relationship with FDI from Thailand, which are in agreement with the predictions in Hypothesis 1a, 3b, and 9c. Another variable, of which the analysis result shows an expected negative sign, is foreign exchange rate (lnFOREX).

In the earlier estimation of full sample, host country's market size has already been shown to positively influence Thai FDI. The result of the first period reinforces the idea that the size of market is one of the most important determinants of foreign investment. Furthermore, the findings indicate that the increased level of openness to FDI and control of corruption promote FDI, meaning that during 2001 and 2007, Thai firms preferred to invest in countries which are more open for FDI and have less corruption problem. This is comprehensible as the two factors are undoubtedly important conditions for providing business fundamentals and creating good investment climate.

In contrast, the negative coefficient of currency exchange's variable implies that from 2001 to 2007, host country's currency appreciation led to decreased Thai FDI. In other words, depreciation of exchange rate appears to encourage FDI inflows. This suggests that Thai firms tended to select investment locations in countries with weak domestic currencies because of the superior relative wealth position which lowers the cost of required capital in home currency.

However, the intensity of trade relations as measured by Thailand's imports from the host country (lnIM), and the quality of host country's institutions as measured by the rule of law index (lnRLAW), turns out to be statistically significant but with a sign contrary to expectation as

predicted in Hypothesis 2b and 9b respectively.

The findings that Thai FDI before 2007 was negatively correlated with prior imports contrasts with the basic presumption that trade relations promote FDI. The possible, though untestable on the basis of the evidence here, explanation is that a considerable portion of imports into Thailand may be capital goods importation. Examples include capital equipment, materials, and intermediate goods that are used in the production. If Thai firms are able to acquire inputs for production from foreign countries through importing, the need for them to relocate abroad in search of capital goods will be minimized and their tendency to participate in FDI will be weakened. In this case, imports act as FDI substitution thus pre-existing imports from host countries to Thailand may have a negative effect on FDI initiatives. However, this is not the only possible interpretation and further study is necessary to test whether this proposition is appropriate.

Also, the coefficient on the index of rule of law (InRLAW), which is adopted as one of the measurements for host country's institutional context, indicates a decreasing relationship between host country level and Thai FDI during 2001 and 2007. It can be interpreted that the better quality of the home country's governance dampened Thai FDI propensity. This contradicts to the view expressed in Chapter 3 that FDI is discouraged by weak institutions. However, in fact, a number of recent China-focused researches have showed that the prevalence of the rule of law is not always a necessary condition for a country to attract FDI. Wang, Xu, and Zhu (2011) demonstrated that good economic fundamentals can attract FDI inflows in the absence of the rule of law. Kolstad and Wiig (2012) also found that Chinese outward FDI is attracted to countries with a combination of large natural resources and poor institutions. Moreover, an in-depth case study of multinational oil companies in Angola by Wiig and Kolstad (2010) argued that institutional improvement may not be in the interest of corporations. They pointed out that while institution may reduce risk, costs and increase productivity, institutions also have an impact on the allocation of resource rents. Therefore, institutional reform might pose unfavorable effect to their returns by shifting resource rents from corporations to host country populations.

Based on the above discussion, it can be derived that before 2007, Thai firms were not

demotivated but instead attracted by challenging institutional setting because of greater potential gains which outweighed the risk and cost of operating in poorly governed countries. Other interpretations are also possible, for instance that Thai firms' familiarity with uncertain institutional environment which is similar to home country's situation enabled them to attain a competitive advantage over other multinationals, or that because of their latecomer position, the only opportunities left for FDI were in countries characterized by weak institutions. These assertions, though convincing, are yet inconclusive and need to be addressed properly by further analysis.

5.2.2. The second period (2007-2013)

In the later time period, only three controlled variables are found to have statistical significance and all the significant determinants in the first period lose their explanatory power. Thus, it can be seen that Thai firms are motivated by different set of motives as time passes by, or that Thai investors have gained enough knowledge and experiences to handle business constraints so the factors which formerly influenced Thai FDI are no longer relevant. That being said, natural resource endowment (lnEXORE, measured by the ratio of fuels, ores and metals exports to total exports) and openness to trade (lnTR, measured by foreign trade ratio) are instead significant determinants with positive relationship with Thai FDI. These findings suggest that during this period, Thai overseas investments were predominantly undertaken in an attempt to exploit natural resources in foreign countries and were directed to open economies in particular.

The outcome that abundant natural resources and trade openness are significant and positive for the later phase but not for the earlier one may be related to the fact that Thai FDI outflows have gone through cycles of rise and fall over time. Strictly speaking, the economic crisis which struck Thailand in 1997 has left a severe impact on the internationalization ability of Thai MNEs and it was only until several years later that these firms finally recovered and regained their strength to undertake investment overseas. Since securement of natural resources and raw materials usually requires firms to spend a massive sum of upfront capital, it is plausible that Thai enterprises did not have surplus investment funds to engage in the natural resource sector until their financial situation improved considerably. And because Thai MNEs focused on the acquisition of foreign natural

resources in this period, the openness to international trade increases the relative attractiveness of a host country as a potential investment location, particularly for export-platform FDI. Investing in a country with trade liberalization policy would provide the merit of reduction in trade costs and ensure ease of transferring those acquired raw materials to Thailand or to third countries for use in production process.

However, the coefficient on per capita GDP ($\ln\text{GDPC}$) is statistically significant but negative. This means that an increase in host country's GDP per capita results in a decrease in FDI inflows from Thailand, thus running counter to the standard assumption that FDI reacts positively to market size. However, many scholars also share a view that per capita GDP has an ambiguous effect on FDI and there is mixed evidences concerning the significance of market size considered on a per capita basis. Edwards (1992) uses the inverse of income per capita as a proxy for the return on capital and concludes that countries with lower real per capita income will tend to receive a greater share of FDI. High per capita GDP also reflects high labor costs which is a negative factor for FDI (OECD, 2000). Thus, it can be asserted that Thai firms are concerned with the lower return on investment owing to higher wages and therefore refrain from investing in countries with high per capita income. This proposition could be verified by looking at the relationship between labor costs and FDI inflows. However, since the time series data of labor costs is not available for a majority of countries in the sample, it is not possible to test whether this argument is valid and applicable or not.

Section 3. HOST COUNTRY LEVEL OF ECONOMIC DEVELOPMENT

According to an interview survey conducted by Ernst & Young in 2012, Thai firms appear to have different priorities depending on what kind of country they invest in. Thai companies predominantly focus on gaining access to intellectual property and skilled workers when they invest in developed markets. By contrast, they aim to gain access to raw materials or natural resources and access to new distribution channels in emerging markets.

In order to investigate whether there are similarities and differences in the determinants of Thai FDI between groups of host economies, the data are separated into two subgroups by the

recipient country's OECD membership status. By comparing results for the subsamples of OECD and non-OECD countries in columns 4 and 5 of Table 5 respectively, it can be seen that there is a distinctive pattern of outward FDI varied by host country's level of development.

5.3.1. OECD countries

Firstly, the result of the OECD group shows that the only variable found to be significantly and positively associated with Thai FDI is natural resource endowment (lnEXORE). Therefore, Thai FDI outflows to developed economies are stimulated by the country's abundance of natural resource. This is in line with the expectation of resource-seeking FDI and also consistent with the result of the full sample. However, none of the other predictor variables are statistically significant. Specifically, the asset-seeking variable (lnPAT) is insignificant which suggests that Thai firms are not motivated to acquire strategic intellectual capital assets in economically advanced countries. Contrary to the previously mentioned qualitative study by Ernst & Young, the empirical results contend that Thai FDI into rich countries is not particularly driven by strategic asset seeking motive but rather resulted from a specific motivating force varying by firm.

5.3.2. Non-OECD countries

In the case of non-OECD group, the statistically significant determinants variables are absolute market size (lnGDP), openness to trade (lnTR), and natural resource endowment (lnEXORE) and all show the expected positive signs. Precisely speaking, the coefficient of GDP which is positively significant at the 99 percent confidence level illustrates that Thailand's outward FDI to non-OECD countries is best explained by market-seeking motive. Furthermore, ownership of natural resource appears to have a significant influence in the expected direction on the amount of Thai outward FDI. This signifies that Thai firms also invest in less-developed economies because of the need to secure access to raw materials and natural resources. In addition, the result displays that trade openness contributes positively to Thai FDI outflows to developing countries.

However, the explanatory variable lnPAT has a significant and negative coefficient in the estimation of non-OECD economies, indicating a decreasing relationship between host country's

level of technological development and outward FDI from Thailand. Since this variable is adopted as a measurement of the presence of strategic resource seeking motive, it can be inferred that Thai firms are not attracted but instead hindered by innovation and technological advancement in developing countries. One possible explanation is that the acquisition of advanced technology from third world countries would presumably costs less than the purchase of that from developed markets. Thus, as many foreign firms combat for the possession of such technological capability, demand could be so overwhelming that it becomes too competitive and difficult for Thai enterprises to enter those emerging markets. Again, this explanation remains debatable as the data are not adequate to draw any firm conclusion.

CHAPTER 6. CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study is to examine the distinguishable characteristics and to investigate the determinants of outward foreign investment by enterprises from Thailand. A well-specified model is developed and the analysis, using official data on outward Thai FDI and employing a wide range of predictor variables, is undertaken in the context of the existing theory on international business and foreign direct investment. According to the regression results, the significant determinants and the direction of their correlations with outward FDI from Thailand are summarized in Table 6.

Table 6: Summary of results for the determinants of Thai outward FDI

Full Sample	2001-2006	2007-2012	OECD	Non-OECD
<ul style="list-style-type: none"> ▪ Market size (+) ▪ Natural resources (+) ▪ Distance (-) 	<ul style="list-style-type: none"> ▪ Market size (+) ▪ Imports from Thailand (-) ▪ Openness to investment (+) ▪ Exchange rate (-) ▪ Rule of law (-) ▪ Control of corruption (+) 	<ul style="list-style-type: none"> ▪ Market size per capita (-) ▪ Openness to trade (+) ▪ Natural resources (+) 	<ul style="list-style-type: none"> ▪ Natural resources (+) 	<ul style="list-style-type: none"> ▪ Market size (+) ▪ Openness to trade (+) ▪ Natural resources (+) ▪ Technology (-)

Overall, the findings reveal that for the studied period which covers 2001 to 2012, market size and natural resource endowment are the key factors attracting Thai FDI to a host country. In other words, Thai multinationals are driven by the need to explore and open up new market as well as to secure access to raw materials and natural resources. In particular, Market size is found to be very significant for outward FDI from Thailand to other developing countries, and for overseas investment carried out by Thai firms during 2001 and 2006. In terms of natural resource endowment, the results show that a host country's ownership of fuel, ore, and metal reserves exerts a positive influence on Thai FDI, especially for the period between 2007 and 2012. Since Thailand only has small reserves of most metallic minerals and fuel minerals, foreign resources are acquired in order to meet domestic demand and make up for the shortage. Moreover, Thai enterprises are equally driven by an abundance of natural resources regardless of whether such resources are located in developed

or developing countries. Also, it can be concluded that since 2007, Thai firms have moved away from undertaking mainly market-seeking strategies towards the securing of raw materials in foreign markets. A conventional result for geographical proximity, that distance in general negatively impacts FDI, is confirmed as well.

However, the growth rate of market does not play a significant role in attracting Thai FDI and the same can be said about the presence of regional economic cooperation between Thailand and a host country. In addition, the results present no evidence for the hypothesis that Thai firms are motivated by low inflation rates or high level of infrastructure development in a host country. As for strategic asset seeking motive, the expected positive correlation is not supported in all regressions, suggesting that Thai FDI is not stimulated by the desire to acquire superior technology or management know-how in foreign markets.

The results from the sub-sample consisting of FDI outflows prior to 2007 points out that Thai investors were concerned with the severity of corruption issue and the appreciation of host country currency since these factors bring about additional costs and give rise to uncertainty in overseas operations. Nevertheless, the effects are no longer significant in the latter period from 2007 to 2012. The possible explanation is that Thai companies used to be sensitive to factors like institutions and financial stability because of their lack of internationalization knowledge and experiences, but later they have become mature and grown accustomed to deal with challenges of managing a global business.

The unprecedented findings are that since 2007, prior imports between Thailand and a host country, and an improvement in host country's governance as measured by the rule of law index, have a significant negative impact on FDI location choice. Moreover, during 2007 and 2012, Thai FDI is deterred, rather than attracted, by an increase in per capita GDP. One of the probable assumptions is that Thai companies consider GDP per capita as a reflection of the country's standard of living and labor costs. As a result, they refrain from investing in countries with high per capita income and search for an investment location with low cost advantage in order to enhance their competitiveness. Despite the underlying rationale, these unexpected results suggest that Thai FDI

possesses distinct characteristics, and that Thai multinationals may not always behave according to the general theory and may not evaluate investment opportunities similarly to their counterparts from industrialized countries.

Splitting the sample into OECD and non-OECD countries also reveals that Thai companies are motivated by different sets of determinants associated with different kinds of host countries. The extent to which a host country economy is open to foreign trade and investment is another important determinant which influences the FDI locational decision-making of Thai firms. This is especially true in the case of less developed economies of which the results claims that the higher degree of trade openness leads to the greater propensity of Thai FDI flowing to those respective countries. However, Thai investors seem to be discouraged by the higher level of technological development in emerging countries, whereas the prediction that Thai enterprises go to developed markets in search for advanced technology is not empirically proven. In fact, not many patterns of Thailand's investment outflows to rich countries are uncovered except for the importance of natural resource ownership in boosting Thai FDI.

The results have direct implications to policy makers and host governments which desire to attract Thai FDI. This study contributes to a better understanding of Thai MNEs' investment motivations, thus allowing policy makers to come up with more suitable and effective measures to attract more FDI since investment driven by different motivations require different policy responses. The host governments also benefit from knowing what kind of role they should play in creating investment climate in order to maintain existing Thai FDI and attract more potential investors from Thailand.

However, this study still has a number of limitations. First of all, it examines a sample of countries on the basis of aggregate FDI since comprehensive firm-level data are not available. Thus, it is not possible to investigate the impact of firm specific advantages which are also important influential factors of FDI behavior. Furthermore, reliable data on outward FDI is available for a limited number of years, therefore it is difficult to monitor the evolution of Thai investment abroad and draw a proper comparison of the changing patterns of determinants over time. Data limitation

also has an effect on the selection of independent variables. Although a wide range of explanatory variables are incorporated in an attempt to explain Thai FDI propensity, some aspects have to be omitted due to the lack of complete data. Finally, there are signs of possible multicollinearity between the predictor variables which affects the robustness of the empirical results, although does not reduce the predictive power of the model as a whole.

With respect to future work, more empirical analyses at firm level are necessary in order to provide a better understanding of investment behavior of Thai multinationals. Additionally, expanding the dataset to include more observations or more controlled variables would also make a valuable contribution. There are other potential important determinants of FDI which have not been considered in this study and deserve further investigation. For instance, future research may take into account factors like domestic labor costs, return on investment, tax rate, and other institutional variables.

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(1) The general definition of FDI as provided by UNCTAD is “an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate), whereas The World Bank put it as “The net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments.”.

(2) The thirty four countries included in the sample are Australia, Austria, Bangladesh, Belgium, Brunei, Cambodia, Canada, China, Denmark, Egypt, Finland, France, Germany, Hong Kong, India, Indonesia, Ireland, Italy, Japan, South Korea, Lao, Lithuania, Luxembourg, Malaysia, Myanmar, Netherlands, Philippines, Romania, Singapore, Switzerland, Taiwan, United Arab Emirates, United Kingdom, United States, and Viet Nam.

(3) This study includes the maximum number of host countries for which bilateral FDI flows are available. However, data from financial offshore centers, namely Mauritius, Cayman Islands and British Virgin are excluded since they are highly likely to be biased and do not reflect the actual flows of investment.

(4) For example, Billington (1999) used total FDI, Culem (1988) adopted the share of FDI in GNP, Chakrabarti (2001) considered FDI per capita, and Asiedu (2002) preferred the share of FDI in GDP.

(5) Since 2007, the Bank of Thailand has relaxed exchange control regulations on capital outflows to allow Thai residents to invest abroad and to provide more alternatives for Thai investors in diversifying their investment. Companies registered on the Stock Exchange of Thailand (SET) are allowed to invest abroad with no limit while Thai parent companies and subsidiaries are allowed to transfer up to \$100 million USD per year offshore for direct investment or lending, which was previously limited to \$10 million USD and \$5 million USD respectively (Sodsrichai et al., 2011).