

## **Factors Influencing Outward FDI: case study of Thailand in comparison with Singapore and Malaysia.**

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### **Abstract:**

Thailand has experienced an inward foreign direct investment (FDI) driven economy for the past decades. However, several economic structural changes such as shortages of labor supply, wage rise policy and aging population has increased the importance of outward FDI. However, Thailand's outward FDI performance is still much lower than some of its ASEAN friends, such as Singapore and Malaysia.

In this study, we employ quantitative method to identify why the level of outward FDI of Thailand is lower than those of Malaysia and Singapore. In particular, we analyze factors explaining the low level of Thailand's outward FDI compared with Malaysia and Singapore. Thus, we employ the *Oaxaca-Blinder decomposition* method to study these factors as done in Wei (2005) for the case of inward FDI gap between China and India. Further, we use time-series regression analysis to explain the determinants of outward FDI of Thailand to CLMV countries since these countries have high potential to become Thailand's outward FDI recipients.

Keywords: Outward FDI, Oaxaca-Blinder decomposition

JEL classifications: F14, F21

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## 1. Introduction

Inward foreign direct investment (FDI) has been one of the important driving forces for Thailand's economic growth during the last decades. Similar to other countries in the region, Thailand is an important production and assembly base for many industries such as automobiles and hard-disk drives. As a result, the country attracts tremendous investment from multinational enterprises from developed countries including Japan, the European Union, and the United States. FDI from developed countries leads to technology transfers and knowledge spillovers. It also promotes employment, productivity and international trade in Thailand. Therefore, several literature such as Jansen (1995), Chen and De Lombaerde (2009) and Nicolas (2009) suggest that FDI is a crucial factor behind the miraculous economic growth in Thailand and East Asian countries during the 1990s. Jansen (1995) studies the impact of inward FDI on the Thai economy and finds that inward FDI can stimulate growth via investment and export channels. Similarly, Cheewatrakoolpong and Sabhasri (2012) shows that inward FDI in Thailand significantly promotes employment, total factor productivity (TFP), and economic growth.

However, the so-called flying geese phenomenon, as mentioned in Kojima (1973), starts to occur in Thailand. Thailand has experienced a lack of operational workers for several years. This problem comes from a mismatch between demand and supply in the labor market. While the demand for workers that graduate from vocational school has been increasing because of a rise in manufacturing bases in Thailand, a larger portion of the new generation chooses to pursue a Bachelor's or higher degree instead. Furthermore, Thailand has increased the minimum salary of workers with a Bachelor's degree to THB15,000 per month (approximately USD500) in 2011.<sup>3</sup> This policy further drives students away from pursuing vocational study. According to the World Bank (2012), Thailand faces the most severe problem of shortage in operational workers and skilled labor when compared with other ASEAN countries.

Additionally, Thailand is turning to be an aging society. Comparing with other ASEAN countries, Thailand has a more severe aging problem than all the others except for Singapore. The aging problem in Thailand causes a decline in labor force and intensifies the lack of operational workers.

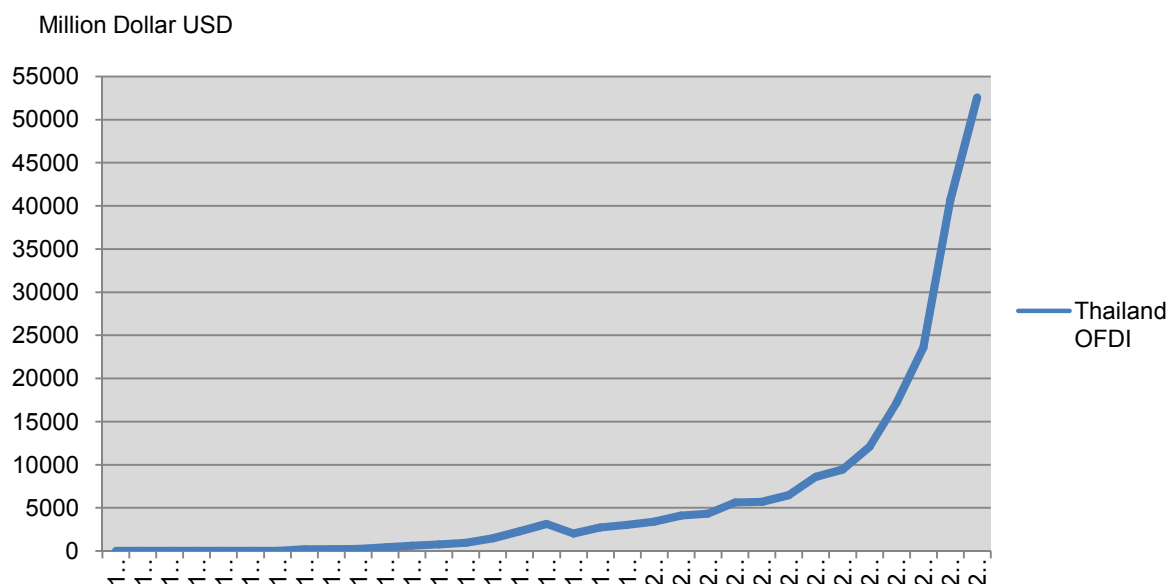
Further, Thailand faces a sharp increase in the wage rate. Thailand has enacted a national minimum and uniform wage that mandates a daily rate of nearly \$10 (around \$9.86 per day) in 2013. The minimum wage rate was around \$7.17 in Bangkok and \$5.40 in provincial areas in 2011 and became \$9.86 and \$7.44 respectively in 2012. The increase in the national minimum wage severely affects labor-intensive industries such as textiles, garments, electronics and leather wares.

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<sup>3</sup> The policy came from previous prime minister Yingluck Shinawatra.

Both, the shortage in operational workers and the higher wage rate, has led to a sharp increase in Thailand's outward FDI as seen in Figure 1. This pattern reveals the important economic structure of Thailand.

**Figure 1: Thailand's Outward FDI during 1980-2012**



Source: UNCTAD

Apart from the change in the domestic economic structure, several changes in regional policies, in order to promote connectivity within ASEAN community, are an important driving force for Thailand. The crucial regional policies worth mentioning are trade liberalization and economic reforms in the Greater-Mekong Subregional (GMS) countries, several trade agreements and economic cooperation programs in the region such as ASEAN Economic Community (AEC), and the transition of Myanmar.

The driving forces from both domestic economic structure and regional policies put outward FDI into a spotlight of Thailand's policy. Board of Investment of Thailand (BOI) has started to pay attention to outward FDI. In the BOI's current five-year strategic plan (2013-2017), BOI changes its mission from "promoting inbound investment" to "promoting both inbound and outbound investment". As a result, the BOI has set up Thailand Oversea Investment Support Center (TOISC) and Thai Overseas Investment (TOI) Plan: 2013-2017 in 2012.

However, when comparing with ASEAN colleagues, Thailand still has a relatively low level of outward FDI as seen in Table 1.

**Table 1: Stock of Outward FDI in the selected ASEAN countries (millions US\$)**

Country	Outward FDI (stock)		
	1990	2000	2011
Singapore	7,808	56,755	339,095 <sup>a</sup>
Malaysia	753	15,878 <sup>a</sup>	106,217
Thailand	418	2,203	33,226 <sup>a</sup>
Indonesia	86 <sup>a</sup>	6,940 <sup>a</sup>	9,502 <sup>a</sup>
Phillipines	406 <sup>a</sup>	2,044 <sup>a</sup>	6,590 <sup>a</sup>

Source: World Investment Report 2012

Note: a means approximated figures

The poor outward FDI performance of Thailand may affect its competitiveness and economic growth. Ohno (2009) points out that outward FDI is one of the important factors that make the newly industrialized economies (NIEs)<sup>4</sup> exit a middle income trap and become developed countries.

Hence, changes in both domestic economic structure and regional policies have driven Thailand to promote outward FDI. However, among its ASEAN counterparts, current level of Thailand outward FDI is still rather low. This paper thus studies the factors influencing differences of outward FDI between Thailand and two ASEAN colleagues, namely Singapore and Malaysia. Also, the study analyzes important determinants of Thailand's outward FDI in CLMV countries.<sup>5</sup> The results of this study can give insight about the way Thailand should set up its outward FDI promotion policy.

The rest of the paper proceeds as follows. We first provide our methodology to quantify the factors determining differences of outward FDI between Thailand and the other two ASEAN countries. We then depict data sources. In the next section, the quantitative results are shown. The last section concludes.

## 2. Methodology

Our quantitative studies are divided into two parts. First we adopt panel regression to analyze the factors influencing outward FDI of Thailand in the CLMV countries. Second, we employ the Oaxaca-Blinder decomposition method to study factors explaining the differences of Thailand's outward foreign direct investment compared with Malaysia and Singapore.

### 2.1 Panel regression

According to previous literatures, factors influencing outward FDI can be divided into three groups, namely, country-level factors, industry-level factors and firm-level factors. In this study,

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<sup>4</sup> NIEs include South Korea, Hong Kong, Singapore and Taiwan

<sup>5</sup> CLMV stands for Cambodia, Lao PDR, Myanmar and Vietnam. We consider CLMV countries here since the BOI's strategic plan prioritizes these countries as the most important outward FDI recipients of Thailand (the first cluster).

we consider only the country-level ones. Gao (2005), Buckley et.al. (2007), Zhang and Daly (2011), and Bhasin and Jain (2013) suggest the country-level factors influencing outward FDI are as follows:

- i) Market related factors such as market sizes (using GDP) and market demand (using GDP per capita)
- ii) Economic related factors such as inflation rate, real exchange rate, and real interest rate
- iii) The FDI recipient countries' policies such as trade openness, FDI openness, governance, political risks, and corruption
- iv) Production related factors such as capital, technology, and human capital

In this study, we consider the factors determining outward FDI of Thailand in CLMV countries using fixed-effect panel regression during 2005-2011.<sup>6</sup> Our regression is given in the following equation.

$$\log(OFDI_{it}) = \alpha_0 + \beta_1 \log(GDP_{it}) + \beta_2 \log(GDPPC_{it}) + \beta_3 \log(FDI_{it}) + \beta_4 \log(OPEN_{it}) + \beta_5 \log(ER_{it}) + \beta_6 INF_{it} + \beta_7 z_{it} + u_{it} \quad (1)$$

Given that  $OFDI_{it}$  is the outward FDI flows from Thailand to Country  $i$  at time  $t$ .

$GDP_{it}$  is the gross domestic product of Country  $i$  at time  $t$ .

$GDPPC_{it}$  is the per capita gross domestic product of Country  $i$  at time  $t$ .

$FDI_{it}$  is the total stock of inward FDI per GDP of Country  $i$  at time  $t$ .

$OPEN_{it}$  is the level of trade openness of Country  $i$  at time  $t$ .<sup>7</sup>

$ER_{it}$  is the level of real effective exchange rate of Country  $i$  at time  $t$ .

$INF_{it}$  is the level of inflation rate of Country  $i$  at time  $t$ .

$z_{it}$  is other related factors.

Production related factors are not included in our regression since TFP and human capital data of CLMV countries are not available.

## 2.2 Oaxaca-Blinder decomposition

In this study, we adopt Oaxaca-Blinder decomposition as done in Wei (2005) to analyze the factors determining differences between outward FDI of Thailand and two ASEAN countries, Singapore and Malaysia. The difference between outward FDI of two countries can be written in equation (2)

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<sup>6</sup> Both time fixed effect and country fixed effect are employed.

<sup>7</sup> We use two proxies for trade openness. First we adopt the level of total trade (exports + imports) over gross domestic products. Then we use exports and imports of the country.

$$\overline{\ln RFDI}_i - \overline{\ln RFDI}_T = \widehat{\beta}'_i \overline{X}_i - \widehat{\beta}'_T \overline{X}_T \quad (2)$$

Where  $\overline{\ln RFDI}_i$  is logarithm of outward FDI flows of Country i (Malaysia/Singapore) estimated from regression.

$\overline{\ln RFDI}_T$  is logarithm of outward FDI flows of Thailand estimated from regression.

$\widehat{\beta}'_i$  and  $\widehat{\beta}'_T$  denote vectors of coefficients estimated from Country i's regression and Thailand's regression respectively.

$\overline{X}_i$  and  $\overline{X}_T$  denote vectors of determinants of outward FDI used in the regressions of Country i and Thailand respectively.

Arranging equation (2) following Blinder and Oxaca (1973), we get total estimated gap as indicated in equation (3)

$$\overline{\ln RFDI}_i - \overline{\ln RFDI}_T = \widehat{\beta}'_i (\overline{X}_i - \overline{X}_T) + (\widehat{\beta}'_i - \widehat{\beta}'_T)' \overline{X}_T \quad (3)$$

According to Blinder and Oxaca (1973), the first term  $\widehat{\beta}'_i (\overline{X}_i - \overline{X}_T)$  is the difference due to explained factors in regression while the second term  $(\widehat{\beta}'_i - \widehat{\beta}'_T)' \overline{X}_T$  represents the difference due to unexplained factors or the factors which are not included in the regression. As a result, the contribution of each explanatory variable to differences between outward FDI of Thailand and Singapore / Malaysia can be written in equation (4).

$$\frac{\widehat{\beta}_i^j \overline{X}_i - \widehat{\beta}_i^j \overline{X}_T}{\widehat{\beta}'_i \overline{X}_i - \widehat{\beta}'_T \overline{X}_T} \times 100 \quad (4)$$

Where  $\beta_i^j$  denotes the coefficient of  $x^j$  in Country i's regression.

$\beta_T^j$  denotes the coefficient of  $x^j$  in Thailand's regression.

Our outward FDI regression is revised from Banga (2007) which includes push factors from Dunning (1993). In Banga (2007), the push factors can be categorized into 3 groups, namely, trade-related factors, domestic economic related factors, and technology-related factors. Our regression is shown in equation (5)

$$\log(OFDI_t) = \alpha_0 + \beta_1 \log(GDPPC_t) + \beta_3 \log(OPEN_t) + \beta_4 \log(ER_t) + \beta_5 TFP_t + \beta_6 \text{labor}_t + u_t \quad (5)$$

Where  $TFP_t$  denotes the growth rate of total factor productivity at time t.

$\text{labor}_t$  denotes the growth rate of labor force at time  $t$ .

We estimate time series regression in equation (5) of Thailand, Singapore, and Malaysia during 1980-2012 using Newey-West standard error estimation. Then we use coefficients from equation (5) to estimate Oxaca-Blinder gaps using equation (4).

### 3. Data Sources

Data sources of our study can be summarized in Table 2.

**Table 2: Data Sources**

Variables	Data Sources
OFDI of Thailand	Bank of Thailand
OFDI of Singapore	Singapore Department of Statistic via <a href="http://www.singstat.gov.sg">www.singstat.gov.sg</a>
OFDI of Malaysia	Statistics of Foreign direct investment in ASEAN via <a href="http://www.asen.org">www.asen.org</a>
Imports	Global Trade Atlas
Exports	Global Trade Atlas
GDP	Worldbank data via <a href="http://www.data.worldbank.org">www.data.worldbank.org</a>
GDP per capita	United Nation Conference on Trade and Development statistic via <a href="http://www.unctadstat.unctad.org">www.unctadstat.unctad.org</a>
Inflation	Worldbank data via <a href="http://www.data.worldbank.org">www.data.worldbank.org</a>
Real effective exchange rate	World Bank Data via <a href="http://www.data.worldbank.org">www.data.worldbank.org</a>
Labour force	United Nation Conference on Trade and Development statistic via <a href="http://www.unctadstat.unctad.org">www.unctadstat.unctad.org</a>
TFP	United Nations Industrial Development Organization via <a href="http://www.unido.org">www.unido.org</a>

### 4. Results

In this section, we illustrate our results from the regressions and Oxaca-Blinder gap decomposition.

#### 4.1 Regression results

Our estimation of equation (1) using fixed effect panel regression is shown in Table 3. We can see that per capita GDP which indicates market demands of recipient countries is the most influential factor determining outward FDI of Thailand in CLMV countries. Moreover, FDI openness, which is measured by the stock of FDI inflows in host countries per their GDP, significantly explains outward FDI of Thailand to CLMV countries. It is also important to note that trade openness variables, measured by imports and exports and the ratio of total trade to GDP, have an opposite sign from previous literatures. This comes from the fact that CLMV countries, with only Vietnam as an exception, have a very low level of trade. However, Thailand has high investment in Myanmar due to its proximity and natural resource abundance. As a result, the sign of coefficients for openness

variables in our panel regression contradicts a hypothesis that trade openness of host countries bring about higher outward FDI. Finally, economic-related factors of host countries including real effective exchange rate and inflation rate do not significantly determine outward FDI from Thailand to CLMV countries.

**Table 3: Panel regression of equation (1) in case of Thailand<sup>8</sup>**

Dependent Variables	model 1	model 2	model 3	model 4
logimport	-0.0116 (0.589)			-0.797* (0.379)
logexport	0.0456 (2.419)			-38.27** (12.98)
loggdppc	21.19*** (5.391)	21.22*** (4.862)	16.49*** (3.277)	2.887** (1.133)
loger	3.007 (1.825)	2.991 (2.204)		0.0822 (0.0779)
inflation	0.0116 (0.054)	0.0115 (0.0376)	0.0152 (0.0434)	-0.0222 (0.0116)
logfdi	10.30* (5.226)	10.32** (3.984)	7.641** (2.787)	2.450** (871.9)
logopen	-20.29* (9.753)	-20.21* (8.284)	-15.47** (6.147)	
country	-4.372* (2.147)	-4.364* (2.103)	-1.614** (0.451)	1.304 (0.845)
Constant	-152.3*** (40.05)	-151.8** (44.04)	-98.63*** (19.39)	-1,926** (706.1)
Observations	21	21	21	28
R-squared	0.867	0.867	0.839	0.672

Remarks: - parentheses denote standard errors

- \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

We estimate equation (1) for Singapore and Malaysia for comparison purpose. The results of estimations are shown in Table 4 and 5.

<sup>8</sup> Due to high correlation between GDP and GDP per capita, we remain only GDP per capita in our estimation.



**Table 4: Panel regression of equation (1) in case of Singapore**

Dependent Variables	(1)	(2)	(3)
logimport	0.125* (0.064)	0.0812 (0.0487)	
logexport	0.378*** (0.112)	0.362*** (0.103)	
loggdppc	1.096*** (0.331)	2.371** (0.775)	0.686*** (0.119)
loger	0.0178 (0.035)	0.175 (0.288)	-0.781*** (0.142)
inflation	-0.0171* (0.00878)	-0.0151*** (0.00414)	-0.00613 (0.00546)
logfdi	-1.889*** (0.288)	-1.192** (0.4)	0.638** (0.294)
country	0.278** (0.0896)	0.0847 (0.264)	0.996*** (0.0724)
logopenness		0.16 (0.241)	1.061*** (0.177)
Constant	-4.911 (2.734)	-16.28** (6.964)	-1.296 (1.622)
Observations	40	33	33
R-squared	0.981	0.994	0.993

Remarks: - parentheses denote standard errors

- \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

In case of Singapore, we can see that market size, FDI openess and trade openess significantly influence outbound investment from Singapore to CLMV countries. The estimation results in the first and second columns show high correlation between exports and inward FDI of host countries. Therefore, the coefficient of FDI openess has an opposite sign from literatures. However, when we use a ratio of total trade to GDP as a proxy for trade openess, the sign of FDI openess's coefficient conforms to the hypothesis from existing literatures. It is also important to point out that inflation rates of host countries are one of the significant explanatory variables of Singapore's outward FDI; however, the results are not robust across several estimations.

**Table 5: Panel regression of equation (1) in case of Malaysia**

Dependent Variables	(1)	(2)	(3)
logimport	-0.24		-0.787*
	(0.344)		(0.364)
logexport	0.294		1.653**
	(0.75)		(0.702)
loggdppc	14.31*	13.30*	13.15**
	(7.632)	(6.058)	(5.015)
loger	1.426	1.108	2.389**
	(1.223)	(1.382)	(0.908)
inflation	0.00541	0.0124	0.00408
	(0.0183)	(0.0149)	(0.0185)
logfdi	3.453	3.708	-1.642
	(4.733)	(2.763)	(4.992)
logopenness	1.993**	2.339**	
	(0.79)	(0.839)	
country	-1.855	-1.57	-2.766***
	(1.08)	(1.167)	(0.7)
Constant	-114.3*	-107.3*	-101.6*
	(60.22)	(47.27)	(44.43)
Observations	28	28	29
R-squared	0.805	0.801	0.831

Remarks: - parentheses denote standard errors

- \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Similar to previous estimations, trade openness and market sizes are important explanatory factors of outward FDI from Malaysia to CLMV countries. Exchange rates of host countries may also influence Malaysia's outward FDI. When host countries have a lower value of currency compared with Malaysia, Malaysia experiences more outward FDI. However, the impact of exchange rates is not robust across several estimations. Finally, unlike previous estimations of Thailand and Singapore, the level of FDI openness has no influence on Malaysia's outward FDI to CLMV countries.

In conclusion, our estimations illustrate the importance of market related factors of host countries and openness policies for both trade and FDI as explanatory variables of outward FDI from the selected ASEAN countries to CLMV countries. However, host countries' economic related factors have insignificant influence in determining outbound investment from the more developed ASEAN countries to CLMV.

#### 4.2 Oxaca-Blinder gap decomposition

In this section, we depict our results from Oxaca-Blinder gap decomposition. We start with the estimation of time series regression in equation (5). Then, factors explaining the gaps between outward FDI of Thailand and those of Singapore and Malaysia according to equation (4) are discussed.

Table 6 depicts regression results in case of Thailand. We can see that productivity and labor force are important explanatory variables for outbound investment of Thailand. Higher productivity leads to more outward FDI of Thailand. Also, a smaller size of labor force leads to more outbound investment from Thailand.

**Table 6: Regression results of equation (5) in case of Thailand<sup>9</sup>**

Dependent variables	(1)	(2)	(3)
logex	3.079** (1.42)	2.242** (0.858)	
logim	-0.837 (1.11)		
labor	-0.0308* (0.0165)	-0.0357** (0.0166)	-0.0293* (0.0145)
loggdppc	0.0803 (1.309)	0.0463 (1.369)	3.356*** (0.207)
loger	-1.212 (1.496)	-0.554 (1.341)	2.412*** (0.798)
tfp	0.0489*** (0.0108)	0.0413*** (0.0111)	0.0307** (0.0111)
openness			0.21 (0.394)
Constant	-5.781* (2.81)	-6.632** (2.444)	-11.70*** (1.299)

Remarks: - parentheses denote standard errors

- \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

In case of Singapore, Table 7 shows that its income level, outward FDI promotion policy, its productivity level, the value of its exchange rate and the level of the country's trade openness contribute to the level of Singapore's outward FDI.

<sup>9</sup> The dummy variable indicating the existence of outward FDI promotion policy cannot be included in case of Thailand as the country has started its policy in 2013.

**Table 7: Regression results of equation (5) in case of Singapore**

Dependent variables	(1)	(2)	(3)	(4)
logex	1.213		0.4	
	(1.464)		(1.674)	
logim	0.742		1.405	
	(1.386)		(1.539)	
labor	0.00798	0.0567	0.0125	0.0578
	(0.0263)	(0.0588)	(0.0418)	(0.065)
loggdppc	0.768	3.611***	1.46	3.850***
	(0.707)	(0.216)	(0.868)	(0.222)
loger	3.124**	3.915***	2.710**	3.141***
	(1.135)	(1.066)	(1.093)	(0.9)
tfp	0.0374*	0.0474	0.0745***	0.0770**
	(0.0195)	(0.0344)	(0.0187)	(0.0295)
fdipromotion	0.640***	0.567*		
	(0.21)	(0.294)		
openness		0.658***		0.603***
		(0.209)		(0.21)
Constant	-22.06***	-29.93***	-26.43***	-31.30***
	(5.042)	(2.186)	(6.045)	(2.275)
Observations	30	30	30	30

Remarks: - parentheses denote standard errors

- \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

As for Malaysia, the regression results in Table 8 indicate that the country's income level and its outward FDI promotion policy play the most important role in explaining its outbound investment. Other notable explanatory variables, that have some impact but are not robust across estimations, are trade openness and total factor productivity.

**Table 8: Regression results of equation (5) in case of Malaysia**

Dependent variables	(1)	(2)	(3)
logex	-1.539*		
	(0.886)		
logim	-0.493		
	(0.529)		
labor	0.135*	0.0585	0.0388
	(0.073)	(0.0719)	(0.0779)
loggdppc	9.928***	3.155***	6.227***
	(2.519)	(1.101)	(0.722)
loger	1.056	-0.0889	-0.614
	(1.13)	(0.707)	(1.045)
tfp	-0.203*	-0.228**	-0.128
	(0.102)	(0.0988)	(0.0912)
fdipromotion	2.160***	2.240***	
	(0.446)	(0.578)	
openness		-1.391**	0.296
		(0.609)	(0.559)
Constant	-8.993**	-3.623	-14.95***
	(3.827)	(3.884)	(2.558)

Remarks: - parentheses denote standard errors

- \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Using the regression results in Table 6-8, we can estimate the factors explaining the differences between Thailand's outward FDI and those of Singapore and Malaysia as shown in Table 9.

Table 9 shows that the difference between outward FDI of Thailand and Singapore is approximately 698.54% on average during 1980-2012. The best explanatory variables for such difference are the gap between the two countries' income level (335.11%) and the difference in their trade openness (20.69%).

Considering the difference between outward FDI of Thailand and Malaysia, we can see that, on average, the difference between outward FDI of the two countries is approximately 401.87% during the same period with the above mentioned case. The factors influencing such difference are outward FDI promotion policy (78.03%) and the difference between the two countries' national income level (22.75%). The rest of the explanatory variables do not have much influence on the outward FDI's gap.

Table 9: Oxaca-Blinder gap decomposition of outward FDI of Thailand and Singapore/Malaysia

Specification	Thailand-Singapore		Thailand-Malaysia	
FDI outflow difference	mean of Singapore's ln RFDI	9.972029457	mean of Malaysia's ln RFDI	7.005267101
	mean of Thailand's ln RFDI	2.986600526	mean of Thailand's ln RFDI	2.986600526
	OFDI differences	6.985428931	OFDI differences	4.018666575
Explanatory variables	% of gap explained (Singapore)		% of gap explained (Malaysia)	
labor	2.378975844		4.091684312	
loggdppc	335.1062009		22.75441488	
loger	-52.52423498		0.868455131	
tfp	-0.050891649		1.490672594	
Openness	20.68694769		-21.63756221	
FDI promotion	5.65723053		78.02621797	

Source: Author's calculation

In conclusion, the most important factors explaining the gap between outward FDI performance of Thailand and its ASEAN counterparts are income level and the adoption of outward FDI promotion policy. As a result, the introduction of effective outward FDI promotion policy in Thailand may help the country catch up with these ASEAN colleagues in term the outward FDI performance.

## 5. Conclusion

Due to a change in domestic economic structure and regional policies, there is an urgent need for Thailand to improve its outward FDI performance. However, Thailand still has a low outward FDI performance compared with Singapore and Malaysia. The country has started its outward FDI promotion policy in 2013 while its ASEAN counterparts have implemented such policies for several decades. Hence, this study analyzes the factors influencing outbound investment decision of Thailand in CLMV countries, the prioritized host countries of Thailand's outward FDI. Also, this study identifies explanatory factors for the difference between outward FDI performance of Thailand and its ASEAN counterparts using Oxaca-Blinder gap decomposition.

Using panel regression, we find that host countries' market demand, their FDI openness policies and their trade openness policies influence the level of outward FDI of Thailand the most. The estimation results of Singapore's and Malaysia's outward FDI indicate similar outcomes.

Finally, Oxaca-Blinder gap decomposition suggests that difference in national income and implementation of outward FDI promotion policy contribute most to the difference between outward FDI performance of Thailand and the other two selected ASEAN countries.

## References:

- Banga, R. (2007). "Impact of government policies and investment agreements on FDI inflows." Working Paper No. 116, Indian Council for Research in International Economic Relations.
- Buckley, P. J., L. Jeremy Clegg, A. R. Cross, X. Liu, H. Voss and P. Zheng(2007). "The Determinants of Chinese Outward Foreign Direct Investment." *Journal of International Business Studies* 38 (4): 499–518.
- Chen, L. and P. De Lombaerde (2011). "Regional Production Sharing Networks and Hub-ness in Latin America and East Asia: a Long-term Perspective." in: *Integration & Trade*, 2011, 15(32):17-34
- Dunning, J.H. (1993). "Multinational Enterprise and the Global Economy." Wokingham, Addison Wesley.
- Jansen, K. (1995). "The macroeconomic effects of direct foreign investment: The Case of Thailand." *World Development*, 23(2), p.193-210.
- Kojima, K. (1975). "International Trade and Foreign Direct Investment: Substitutes or Complements." *Hitotsubashi Journal of Economics*, Vol. 16, pp. 1 – 12.
- Ohno, K. (2009). "Dynamic Capacity Development: What Africa can learn from Industrial Policy formulation in East Asia." Chapter 2 in *The Middle Income Trap: Implications for Industrialization Strategies in East Asia and Africa*, GRIPS Development Forum: Tokyo.
- Oaxaca, R. 1973. "Male–female wage differentials in urban labor markets", *International Economic Review* 14: 693–709.
- Wei, W. (2005) "China and India: Any difference in their FDI performances?", *Journal of Asian Economics*, Vol. 16, Issue 4, p.719-736.
- World Bank (2012), "Thailand Economic Monitor", December 2012.