

## **INTRA-ASEAN INVESTMENT: PUSH FACTORS FOR THAILAND IN COMPARISON WITH CLMV COUNTRIES**

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***Abstract:** The purposes of this paper are to identify the determinants that pushed outward foreign direct investment (FDI) from Thailand and the CLMV countries – of Cambodia, Lao PDR, Myanmar and Viet Nam – to invest in intra-ASEAN countries and examine the differences in their outward FDI. The results from the panel regressions revealed that, for Thailand, the factors that influenced Thailand's outward FDI are gross domestic product (GDP), the level of inward FDI stock, and the level of export. For Cambodia and Lao PRD, the factor that pushed outward FDI was the level of export. For Myanmar, the factors explaining outward FDI were the level of inward FDI stocks and exchange rate. Meanwhile, the factor that caused outward FDI from Viet Nam was the level of export. The Oaxaca-Blinder Decomposition was also applied to explain the differences of outward FDI by Thailand and the CLMV countries. The important factors that can explain such outward FDI performance were GDP and the level of export. In order for Cambodia, Lao PDR, Myanmar, and Viet Nam to enhance the performance of outward FDI, the governments should increase the level of exportation and expand GDP close to the level of outward FDI to Thailand and other advanced ASEAN countries.*

***Key Words:** Outward FDI, Inward FDI, Fixed Effects Regression, Oaxaca-Blinder Decomposition*

### **INTRODUCTION**

Although the Association of Southeast Asian Nations (ASEAN) has been known as a major recipient of inward foreign direct investment (FDI), it has also become a significant source of outward FDI to many developing countries and countries of the region (AIR, 2013). Mirza, Griound, and Wee (2011) stated that the number of enterprises from ASEAN that are becoming internationalized in nature has been on the rise. In 2000, outward FDI in the region stood at US\$84.5 billion, however, by 2011, outward FDI in the region stood at US\$495.7 billion, representing over a five-fold increase. Outward FDI from certain ASEAN countries constantly exceeded inward FDI over the past couple of years (AIR, 2011).

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ASEAN was established in 1967 between Indonesia, Malaysia, the Philippines, Singapore, and Thailand; and membership has grown to include Brunei, Cambodia, Lao PDR, Myanmar, and Viet Nam. The aim of the Association was to increase cooperation among Member States across a range of areas including economic, social, cultural, and technical. The ASEAN Economic Community (AEC) has as its goal the full economic integration of its ten Member States by the end of 2015. The AEC deepens and broadens integration of Member States based on the principles of an open, outward-looking, inclusive and market-driven economy consistent with multilateral rules and adherence to rules-based systems (Khomein, 1992; Rajaratnam, 1992).

Intra-ASEAN investment contributes to the region as an important source of outward FDI. In 2013, the outflows from intraregional investment made up 60 percent of inward FDI to Indonesia primarily in agriculture, manufacturing, and finance (AIR, 2013). This trend among ASEAN companies that invest in foreign countries, including in other ASEAN countries, is anticipated to continue, driven by the following factors: regional integration, corporate strategies, and increasing strong support from national governments.

In 2011, intra-ASEAN investment reached US\$26.3 billion, which was a record for intra-regional investment, and accounted for 23 percent of total FDI flows in ASEAN. The motivation that pushed ASEAN companies to invest and expand in the region is cross-border mergers and acquisitions (M&As). The annual average of intra-regional investment between 1995 and 1997 was only US\$4.7 billion. During the period following the Asian financial crisis of 1997, intra-ASEAN investment was US\$2.4 billion per annum between 1998 and 2002; and during the period of recovery and growth, it was \$6.3 billion per annum between 2003 and 2008. During the period 2010 and 2011, there was a new wave of intra-ASEAN investment, which rose to \$20.3 billion per annum.

**Table 1**  
**Five largest investors in ASEAN**

	2011	2012	2013	2014
1	ASEAN	Japan	Japan	European Union
2	European Union (EU)	ASEAN	ASEAN	ASEAN
3	Japan	United States	Netherlands	Japan
4	United States	Netherlands	United Kingdom	United States
5	China	China	China	Hong Kong (China)

Source: ASEAN Investment Reports 2011-2014

As shown in Table 1, the most significant investors in FDI flows to ASEAN was intra-ASEAN investment, followed by Japan and European Union (EU). Intra-ASEAN investment was different from those of the 1990s and during the period between 2003 and 2008. Those differences included nature, environmental setting, magnitude and share of outward FDI flows. More recently, the amount of intraregional investment

has been expected to rise as a result of growing capacity and an increasing pool of companies in ASEAN willing and able to be regionally involved.

CLMV countries are the key recipients of FDI inflows from both the region and other developed and developing countries. However, these countries do not receive the flows of FDI only, they also serve as investors who contribute to intraregional investment as illustrated in Table 2.

**Table 2**  
Thailand and CLMV countries outward FDI in ASEAN

Value: US\$ million

	2001	2008	2009	2013	2014
Intra-ASEAN	1,219.40	4,098.00	14,559.80	19,399.60	24,377.40
Thailand	1,710.70	508.40	1,463.20	1,256.80	653.90
Cambodia	37.20	240.90	174.00	298.80	372.50
Lao PDR	3.10	47.70	57.30	104.60	137.90
Myanmar	67.40	103.50	67.80	1,186.80	683.60
Viet Nam	241.50	2,705.00	428.70	2,078.60	1,547.10

Source: ASEANstats Database

Table 3 indicates the economic health of ASEAN, Thailand, and CLMV countries. As shown in the table, gross domestic product (GDP) of ASEAN was growing at an increasing pace between 2001 and 2014.

**Table 3**  
Thailand and CLMV countries: GDP

	2001	2008	2009	2013	2014
ASEAN	2.62	4.21	1.54	4.97	4.29
Thailand	3.44	1.73	-0.74	2.81	0.87
Cambodia	8.04	6.69	0.09	7.48	7.07
Lao PDR	5.75	7.82	7.50	8.47	7.52
Myanmar	7.82	N/A	N/A	8.24	8.50
Viet Nam	6.19	5.66	5.40	5.42	5.98

Source: World Bank and UNCTAD

## OUTWARD FDI BY THAILAND AND CLMV COUNTRIES

### Thailand

Thailand is a growing source of intraregional investment in addition to Singapore and Malaysia. Thai companies made significant investments in the region through greenfield projects and M&A. These companies are increasingly using the M&A channel to internationalize and regionalize. Thailand first began to invest in ASEAN countries during 1986-1996, with food processing and textile manufacturing being the pioneer areas of investment in neighboring countries such as Indonesia, Malaysia, the Philippines, Cambodia, and Viet Nam (Wee, 2007). However, Thailand could not

expand and maintain their businesses in foreign countries during 1997-2002. However, in 2003, manufacturing firms were the first companies to invest in ASEAN in large part due to the robust economy.

**Table 4**  
**Thai intra-ASEAN outward FDI**

	Value: US\$ million				
	2000	2011	2012	2013	2014
Thailand	389	-50.7	-342	1256.8	653.9

Source: ASEANstats Database

In 2013, approximately 58 percent of all global M&A purchases by Thai companies took place in the region, including the acquisition of foreign-owned assets based in Thailand. Companies such as Central, Siam Cement, Berli Jucker, Loxley, and Saha Group expanded regionally in 2013-2014.

**Table 5**  
**Thai key economic indicators**

	GDP	GDP per Capita	Export	Import
1978	40,041,643,911	881.52	7,481,226,342	10,895,410,837
1985	57,853,292,823	1,111.68	13,126,692,784	14,090,476,014
1990	94,476,980,970	1,669.71	32,343,036,725	39,132,371,550
1996	148,039,489,641	2,472.31	59,683,161,463	76,215,809,597
2000	145,249,029,981	2,316.82	90,738,808,055	78,556,368,536
2006	198,723,685,564	3,003.03	143,468,970,240	135,354,018,576
2012	246,139,191,582	3,664.74	190,108,542,150	181,617,573,080
2013	253,054,235,069	3,751.65	195,388,254,372	184,132,020,019
2014	255,244,833,670	3,768.79	195,473,361,427	174,245,310,826

Note: GDP, GDP per Capita, Export, and Import are in 2005 constant millions US dollars. Source: World Development Indicators.

Key factors driving Thai companies to regionalize include the emerging AEC, stronger cash reserves, the need to build stronger regional networks to expand their market base, the desire to follow customers that have regionalized, and the imperative to transfer labor-intensive operations to lower-wage countries to remain competitive (AIR, 2013).

### Cambodia

Cambodia is a major recipient of FDI flows and the Cambodian government has attracted FDI from ASEAN and other regions. The information pertaining to Cambodian outward FDI is difficult to find; however, Table 6 shows the only the figures that are available for Cambodia's intra-ASEAN investment.

**Table 6**  
Cambodianintra-ASEANoutward FDI

	Value: US\$ million				
	2000	2011	2012	2013	2014
Cambodia	0	223.8	523	298.8	372.5

Source: ASEANstats Database

Table 7 shows the key economic indicators for Cambodia. Between1993 and2014, the Cambodian economy remained healthy and the level of exports and importswasalso on the rise.

**Table 7**  
Key Cambodianeconomic indicators

	GDP	GDP per Capita	Export	Import
1993	2,436,535,851	253.19	347,899,401	714,700,130
1999	3,702,060,504	294.87	1,416,990,921	1,845,660,759
2000	4,026,612,205	299.56	1,846,275,390	2,283,481,462
2004	5,556,769,455	407.08	3,464,955,663	3,902,135,395
2005	6,293,046,162	472.45	4,032,880,210	4,578,016,313
2012	9,983,636,034	946.48	9,051,437,767	10,407,576,870
2013	10,730,412,374	1,024.61	10,320,642,922	11,980,135,952
2014	11,489,216,206	1,094.58	11,484,793,265	13,194,337,034

Note: GDP, GDP per Capita, Export, and Import are in 2005 constant millions US dollars. Source: World Development Indicators

## Lao PDR

In addition to Cambodia, Lao PDR is also a major recipient of FDI flows and the government has attracted FDI from ASEAN and other regions. The information pertaining to Laos'outward FDIis difficult tofind; however, Table 8 showsthe only the figures that are available forLao PDR's intra-ASEAN investment.

**Table 8**  
Lao PDR intra-ASEANoutward FDI

	Value: US\$ million				
	2000	2011	2012	2013	2014
Lao PDR	13.7	75	73.6	104.6	137.9

Source: ASEANstats Database

Table 9 shows the key economic indicators for Lao PDR. Between1998 and2014, the Lao economy increased but in a slow manner and the level of exports and importswasalso on the rise at slow pace.

**Table 9**  
Lao PDR key economic indicators

	<i>GDP</i>	<i>GDP per Capita</i>	<i>Export</i>	<i>Import</i>
1998	1,780,374,945	247.85	672,003,134	880,766,911
2000	2,021,239,009	324.02	631,533,550	927,800,246
2005	2,735,558,735	476.16	934,399,201	1,272,015,176
2012	4,693,802,074	1,445.87	1,823,208,710	2,284,066,597
2013	5,091,418,632	1,700.99	1,898,514,605	2,348,980,269
2014	5,474,052,495	1,793.47	2,214,464,882	2,719,523,374

Note: GDP, GDP per Capita, Export, and Import are in 2005 constant millions US dollars. Source: World Development Indicators

### Myanmar

Similarly to Cambodia and Lao PDR, Myanmar is a major recipient of FDI flows and the government has attracted FDI from ASEAN and other regions. The information pertaining to Myanmar's outward FDI is difficult to find; however, Table 10 shows the only the figures that are available for Myanmar's intra-ASEAN investment.

**Table 10**  
Myanmar intra-ASEAN outward FDI

	Value: US\$ million				
	2000	2011	2012	2013	2014
Myanmar	74	84.6	151.2	1186.8	683.6

Source: ASEANstats Database

Table 11 shows the key economic indicators for Myanmar. As Myanmar has recently opened its economy, some information has become more available.

**Table 11**  
Myanmar key economic indicators

	<i>GDP</i>	<i>GDP per Capita</i>	<i>Export</i>	<i>Import</i>
2000	4,026,612,205	N/A	1,620,170,000	N/A
2005	6,293,046,162	N/A	3,776,450,000	N/A
2012	9,983,636,034	1,421.50	8,876,910,000	N/A
2013	10,730,412,374	1,106.98	11,232,800,000	N/A
2014	11,489,216,206	1,203.84	11,030,700,000	N/A

Note: GDP, GDP per Capita, Export, and Import are in 2005 constant millions of US dollars. Source: World Development Indicators.

### Viet Nam

In 2013, FDI outflows by Viet Nam reached \$2 billion up from \$1.2 billion in 2012. The outflows by Viet Nam are conducted by state-owned enterprises and concentrated in resource-rich neighboring countries. Forty-seven percent of all Viet Nam's projects are

in Lao PDR and Cambodia. Hydropower, agriculture, and construction projects constitute the important portion of Viet Nam’s investments in its neighboring countries.

**Table 12**  
**Viet Nam intra-ASEAN outward FDI**

	Value: US\$ million				
	2000	2011	2012	2013	2014
Viet Nam	202.4	1517.3	1262.5	2078.6	1547.1

Source: ASEANstats Database

Regional integration is encouraging Viet Nam’s companies to pursue market expansion strategies as well as gain access to natural resources including agriculture and infrastructure and construction projects.

**Table 13**  
**Viet Nam key economic indicators**

	GDP	GDP per Capita	Export	Import
2000	41,288,646,006	433.33	462,349,782,417,900	16,766,086,241
2005	57,633,255,739	699.50	1,061,162,000,000,000	38,623,129,995
2012	87,531,301,194	1,755.27	1,991,636,000,000,000	72,311,529,845
2013	92,277,145,925	1,908.64	2,337,663,328,000,000	84,853,585,508
2014	97,798,691,646	2,052.29	2,607,899,941,000,000	95,718,793,580

Note: GDP, GDP per Capita, Export, and Import are in 2005 constant millions of US dollars. Source: World Development Indicators.

This paper contributes to the literature by examining push factors causing outward FDI from Thailand, and the CLMV countries of Cambodia, Lao PDR, Myanmar, and Viet Nam. The scope of the paper covers only intra-ASEAN investment by CLMV countries and Thailand. The determinants employed in this paper are outward FDI, GDP, level of inward FDI stock, exchange rate, level of export, and wages. The examination can provide important policy insights since governments and policy makers can have an impact only on the domestic factors pushing outward FDI.

**LITERATURE REVIEW**

Wei (2005) explored the determinants of inward FDI in China and India and the factors that significantly influenced the inward FDI. The random effects model was adopted to analyze the determinants of FDI from Organisation of Economic Co-operation and Development (OECD) countries to China and India and then examined the differences of FDI between OECD countries and China and India. The Oaxaca Blinder Decomposition was used to derive the results of the major differences, revealing that the factors that influenced FDI from OECD countries to China were the size of China’s domestic market and international trade which were larger than OECD

countries. In contradistinction, the determinants that encouraged FDI from OECD countries to India were cheaper labor cost, lower country risk, geographic closeness to OECD countries, and cultural similarity.

Saad, Noor, and Nor (2014) examined the determinants that caused outward FDI from Malaysia using Dunning's Push Factors theory as a conceptual framework. The findings indicated that GDP, level of inward FDI stocks, level of productivity, exchange rate, level of export, and patent were the determinants that encouraged the outward FDI from Malaysia.

Cheewatrakoolpong and Boonprakaikawe (2014) studied the factors that pushed Thailand's outward FDI to the CLMV countries in comparison to its neighboring countries using fixed effect regression to estimate the determinants that caused outward FDI from Thailand to the CLMV countries. Moreover, the Oaxaca-Blinder Decomposition was adopted to examine the gap between Thailand's outward FDI performance compared to Singapore and Malaysia. The results showed that the CLMV countries' demand, FDI openness and policies, and trade openness were the determinants that encouraged outward FDI from Thailand to the CLMV countries. The results from the Oaxaca-Blinder Decomposition showed that GDP per capita and the adoption of outward promotion policy were the factors that could describe outward FDI from Thailand that lagged behind Singapore and Malaysia.

Bhasin and Jain (2013) examined the determinants that caused outward FDI from Asian countries. With the rapid growth of outward FDI from developing countries, ten countries in Asia were selected to be investigated. The role model of push factors that encouraged outward FDI from those ten countries (China, Hong Kong, India, Republic of Korea, Malaysia, Bangladesh, Philippines, Thailand, Singapore, and Indonesia) was used in the study. A fixed effects using least square dummy variable model was employed to capture specific effects of the model. In addition, principal component analysis was applied to augment the analyzing richness of the model. The results demonstrated that GDP and FDI openness were the factors that explained outward FDI from the ten Asian economies. Furthermore, high GDP and more liberal and open FDI policy affected higher outward FDI.

Mihci, Cagatay, and Koska (2011) identified the determinants of outward FDI from the EU-12 countries (Bulgaria, Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Romania, Slovenia, and Slovakia), at the industry level taking both horizontal and vertical FDI approaches. They adopted the transaction cost/internationalization paradigm and the OLI approach as well as a panel econometric model to examine the determinants that pushed outward FDI from the EU-12 countries. The results indicated that cost related factors and potential demand were the main determinants that influenced outward FDI. Additionally, outward FDI from the EU-12 countries became a substitution for industry exports.



**METHODOLOGY**

The research methodology will be divided into three sections: (1) panel regression analysis (2) the Oaxaca-Blinder Decomposition method, and (3) data sources. For the panel regression analysis, this research adopted the factor theory or the OLI paradigm developed by Dunning (1971) for the identification of determinants of outward FDI which is similar to the study of Saad, Noor, and Nor (2014). OLI is an acronym standing for ownership advantages, location advantages, and internationalization advantages. Rugman (2010) explained that the OLI paradigm (or eclectic paradigm) was perfectly suitable for analytical framework of outward FDI into host economies.

As mentioned in the literature review section, this paper is intended to capture possible determinants of home country factors that influence outward FDI. The paper adopts five determinants that can possibly push outward FDI from Thailand, Cambodia, Lao PDR, Myanmar, and Viet Nam. Those five determinants are GDP, level of inward FDI stock, level of exchange rate, level of export, and labor cost (wages). More detail about these five determinants can be found in Saad, Noor, and Nor (2014).

**Panel regression**

The determinants that influence outward FDI are identified separately for each country. The following fixed effect panel regression expresses each country’s economic relationship.

$$\log(\text{OFDI}_{it}) = \alpha_0 + \beta_1 \log(\text{GDP}_{it}) + \beta_2 \log(\text{IFDI}_{it}) + \beta_3 \log(\text{ER}_{it}) + \beta_4 \log(\text{EX}_{it}) + \beta_5 \log(\text{Wage}_{it}) + \mu_{it} \tag{1}$$

Where

$\text{OFDI}_i$  denotes the outward flows from the home country to host country  $i$  and time  $t$ .

$\text{GDP}_{it}$  represents the gross domestic product of country  $i$  at time  $t$ .

$\text{IFDI}_{it}$  indicates the total stock of inward FDI as a percentage to GDP of country  $i$  at time  $t$ .

$\text{ER}_{it}$  is the level of exchange rate against US dollar of country  $i$  at time  $t$ .

$\text{EX}_{it}$  means the level of export of country  $i$  at time  $t$ .

$\text{Wage}_{it}$  is the level of average monthly minimum wage of country  $i$  at time  $t$ .

**Oaxaca-Blinder Decomposition**

For an explanation for the differences in Thailand’s outward FDI and its comparison with that of other countries, Oaxaca-Blinder Decomposition is applied for such explanation of differences. The differences in outward FDI from Thailand, Cambodia, Lao PDR, Myanmar, and Viet Nam can be explained by the differences in the characteristics of the home country. If the expected mean of error terms in the

regressions are zero, the total estimated gap in FDI outflows by Thailand and its surrounding countries can be expressed as follows:

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

The first section of equation 3 explains the gap from the Oaxaca-Blinder Decomposition, derived from the summation of the differences between Thailand and Cambodia, Thailand and Lao PDR, Thailand and Myanmar, and Thailand and Viet Nam in their observed characteristics weighted by Thailand's estimated coefficients. The second section of equation 3 is the unexplained section of the gap from the summation of differences in Thailand, Cambodia, Lao PDR, Myanmar, and Viet Nam's estimated coefficients weighted by Cambodia, Lao PDR, Myanmar, and Viet Nam's endowments.

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

Equation 4 indicates the contribution of the variables that explain the differences between Thailand and Cambodia, Thailand and Lao PDR, Thailand and Myanmar, and Thailand and Viet Nam.

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

### Data sources

Because the focus of this research is placed upon the intra-ASEAN investment by the ASEAN countries, the researcher used the data of outward FDI from ASEANstats Database and others covering the period 2000-2014 as shown in Table.

**Table**  
**Data Sources**

<i>Variable</i>	<i>Data Sources</i>
Outward FDI (Thailand, Cambodia, Lao PDR, Myanmar, and Viet Nam)	ASEANstats Database via <a href="http://www.aseanstats.asea.org">www.aseanstats.asea.org</a>
GDP	World Bank via <a href="http://www.data.worldbank.org">www.data.worldbank.org</a>
Inward FDI Stocks	United Nations Conference on Trade and Development (UNCTAD) via <a href="http://www.unctad.org">www.unctad.org</a>
Exchange rate	World Bank via <a href="http://www.data.worldbank.org">www.data.worldbank.org</a>
Export	World Bank via <a href="http://www.data.worldbank.org">www.data.worldbank.org</a>
Wage	International Labour Organization via <a href="http://www.ilo.org">www.ilo.org</a>

### Empirical results

This section presents empirical results from panel regression analysis that explains the determinants that affect the home country factors or push factors of outward

FDI from Thailand and the CLMV countries. A Hausman test, the LM test, and F-test are applied to derive the most appropriate model. A Hausman test helps to decide between fixed effects and random effects (Greene, 2008). The null hypothesis is “the preferred model is random effect” while the alternative is “fixed effects”.

The LM test is used for decision making between a random effects regression and a simple OLS regression (pooled OLS regression). The null hypothesis in the LM test is “variances across entities is zero” (Baltagi, 2008). If it fails to reject the null hypothesis, it means that random effects is not appropriate and no evidence of significant differences across countries.

F-test is the joint significance of the fixed effects intercepts. If it fails to reject the null hypothesis, the alternative will be used. The preferred model is OLS regression and the alternative is the fixed effect (Greene, 2008; Baltagi, 2008).

**Table  
Specification tests**

<i>Spec. Tests</i>	<i>p-Value</i>	<i>Tested</i>	<i>Selection</i>
Hausman	0.0000	Fixed/Random	Fixed
Breusch-Pagen	0.3510	OLS/Random	OLS
F-test	0.0000	OLS/Fixed	Fixed

According to Table 11, the specification tests run by Hausman, Breusch-Pagen, and F-test suggested that the panel regression model be based on fixed effect model. The Hausman test suggested fixed effect model with the 0.0000 p-value while Breusch-Pagen indicated that the model should adopt ordinary least square or OLS with the 0.3510 p-value.

**Table  
Panel regression of Thailand by equation 1**

<i>Dependent Variables</i>	<i>model 1</i>	<i>model 2</i>	<i>model 3</i>
logGDP	-36.69875** (12.57417)	-36.68276*** (13.26806)	-16.85533 (16.6304)
logIFDI	15.15603*** (4.125331)	15.75304*** (4.3275)	6.579945 (5.061482)
logER	4.916804 (3.670996)		
logEX	16.9062** (5.61661)	15.70116** (5.850028)	7.053144 (8.243205)
logWage	0.9248395 (1.579008)	-.4055386 (1.29519)	
Constant	465.0807** (179.508)	517.6652** (184.8282)	
Observations	12	12	13
R-squared	0.8006	0.7410	0.1705

\*\*\*, \*\* and \* indicate 0.01, 0.05 and 0.1 significant level, respectively. Those in parenthesis denotes standard errors.

For Thailand, the factors that encourage outward FDI to ASEAN are GDP, the level of inward FDI stocks, and the level of export. In the first two columns, GDP, the level of inward FDI stocks, and level of export illustrate high correlation of home country factors. However, it is obvious from the estimations that exchange rate and wages do not cause outward FDI from Thailand to ASEAN (see Table).

**Table**  
**Panel regression of Cambodia by equation 1**

<i>Dependent Variables</i>	<i>model 1</i>	<i>model 2</i>	<i>model 3</i>	<i>model 4</i>
logGDP	-2.306284 (4.380524)	2.732994*** (.5922159)	-3.80614 (3.700262)	
logIFDI	0.1324469 (.7523825)		-.1244134 (.6573623)	-.4107661 .5970738
logER	14.09801 (20.49997)			
logEX	3.329736 (2.193355)	24.26377** (9.710875)	4.306501 (2.075817)	2.202376*** .3538745
logWage	-.2857159 (1.610278)			
Constant	-151.5146 (129.3028)	-242.8054 (75.14386)	-29.22546 (20.15702)	-47.20761*** 10.06077
Observations	13	14	14	14
R-squared	0.8618	0.8228	0.8180	0.7988

\*\*\*, \*\* and \* indicate 0.01, 0.05 and 0.1 significant level, respectively. Those in parenthesis denotes standard errors.

For Cambodia, it can be seen that GDP and the level of export push outward FDI. In the second column, GDP and level of export demonstrate high correlation of home country. However, it is obvious from the estimations that the level of inward FDI stock, exchange rate, and wages do not cause outward FDI from Cambodia to ASEAN (see Table).

**Table**  
**Panel regression of Lao PDR by equation 1**

<i>Dependent Variables</i>	<i>model 1</i>	<i>model 2</i>	<i>model 3</i>
logGDP	3.115749 (4.441926)		
logIFDI	-3.971907 (3.341537)	.7389657 (1.866401)	
logER	-6.075966 -4.535054		-4.121306* (1.961991)
logEX	-1.926857 (1.421631)	3.176654*** (.6570041)	2.350791*** (.5560087)
logWage	.2905274 (1.421631)		
Constant	73.94051 (92.60399)	-80.09424*** (23.85922)	-15.47643 (30.55209)
Observations	14	15	15
R-squared	0.8297	0.7324	0.8018

\*\*\*, \*\* and \* indicate 0.01, 0.05 and 0.1 significant level, respectively. Those in parenthesis denotes standard errors.

For Lao PDR, it can be seen that the level of export that causes outward FDI. In the third column, exchange rate and level of export show correlation of home country factors. However, it is obvious from the estimations that GDP, the level of inward FDI stocks, and wages do not cause outward FDI from Lao PDR to ASEAN (see Table).

**Table**  
**Panel regression of Myanmar by equation 1**

<i>Dependent Variables</i>	<i>model 1</i>	<i>model 2</i>	<i>model 3</i>	<i>model 4</i>
logGDP	4.629245 (3.409098)			.9034323 (.772465)
logIFDI	-2.416219 (1.06414)	-1.333796** (.6393749)		
logER	15.0924 (8.540473)	.4241728*** -0.0947399	.397627*** (.124139)	.3890447*** (0.947399)
logEX	-4.286081 (.7944627)		.4272891 (.3713244)	
logWage	-.0822126 (.3397412)			
Constant	-94.64454 (80.26465)	21.68534*** (2.362288)	7.51842 (8.072876)	
Observations	9	15	15	15
R-squared	0.7589	0.7308	0.6696	0.7308

\*\*\*, \*\* and \* indicate 0.01, 0.05 and 0.1 significant level, respectively. Those in parenthesis denotes standard errors.

For Myanmar, it can be seen that the level of inward FDI stocks and exchange rate that push outward FDI. In the third column, the level of inward FDI stocks and exchange rate show high correlation of home country factors. However, it is obvious from the estimations that GDP, the level of export, and wages do not cause outward FDI from Myanmar to ASEAN (see Table).

For Viet Nam, it can be seen that the level of export determines outward FDI. However, it is obvious from the estimations that GDP, the level of inward FDI stock, exchange rate, and wages do not cause outward FDI from Viet Nam to ASEAN (see Table).

Table shows the differences in outward FDI performance between Thailand and Cambodia which is on average 238 percent during 2000-2014. The variables that explain those differences are mainly the gap of GDP (-753%) and the level of export (414%) of these two countries.

By comparing the gap of differences between Thailand and Lao PDR, the average of those differences is approximately 405 percent and the variables that determine such differences are GDP (-870%), the level of export (560%), and exchange rate (103%), respectively.

On average, the difference of outward FDI performance between Thailand and Myanmar is 369 percent and the variables that help explain the gap of such differences are GDP (-753%) and the level of export (415%) of these two countries.

**Table**  
**Panel regression of Viet Nam by equation 1**

<i>Dependent Variables</i>	<i>model 1</i>	<i>model 2</i>	<i>model 3</i>	<i>model 4</i>
logGDP	9.806679 (14.75895)			-.2339251 (9.021323)
logIFDI	3.757087 (4.323503)	3.02485 1.738576	4.123682 (2.615328)	3.10779 (3.678075)
logER	-5.887415 (5.963355)		-2.441757 (4.239024)	
logEX	1.456161 (5.660348)	1.656425*** (.3165725)	2.227849** (1.044145)	1.77764 (4.686359)
logWage	-3.42693 (3.125825)			
Constant	-220.0868 (165.2238)	-48.98926*** (12.83926)	-49.21379 (13.21814)	-47.68967 (51.88171)
Observations	14	15	15	15
R-squared	0.7546	0.7169	0.7252	0.7169

\*\*\*, \*\* and \* indicate 0.01, 0.05 and 0.1 significant level, respectively. Those in parenthesis denotes standard errors.

Comparing the difference between Thailand and Viet Nam in terms of outward FDI performance to ASEAN is approximately 405 percent and the explanatory variables that explain the differences of the gap from these two countries are GDP (-1156%) and the level of export (535%).

To summarize, the determinants that play an essential role in explaining the gap between outward FDI performance of Thailand and CLMV countries are GDP and the level of export. GDP represents ownership advantage of OLI theory and domestic market size; however, this does not correspond to the literature which stated that GDP is expected to have a positive relationship with outward FDI level. In this case, GDP with the negative sign means that the domestic market is decreasing; consequently, the home country is in need of looking for new potential markets. Export is considered an important source of outward FDI by a home country. Export dominates early stages of foreign market penetration and investment sequentially follows (Vernon, 1996). In this case, Thailand seems to have the highest level of export compared to CLMV countries.

## CONCLUSION

The purposes of this paper are to identify the determinants that encourage outward FDI from Thailand and the CLMV countries to intra-ASEAN investment and examine the gap of those differences in outward FDI. The results from the panel regressions revealed that, for Thailand, the factors that influence its outward FDI are GDP, the level of inward FDI stock, and the level of export. For Cambodia, the factor that pushes outward FDI is the level of export; while that of Lao PDR is also the level of export. For Myanmar, the factors explaining outward FDI are the level of inward FDI stocks and exchange

**Table**  
**Oaxaca-Blinder gap decomposition of outward FDI of Thailand and Cambodia, Thailand and Lao PDR, Thailand and Myanmar and Thailand and Viet Nam**

<i>Specification</i>	<i>Thailand-Cambodia</i>		<i>Thailand-Lao PDR</i>	
Outward FDI differences	mean of Thailand's ln ROFDI	20.93654	mean of Thailand's ln ROFDI	20.93654
	mean of Cambodia's ln ROFDI	18.55314	mean of Lao PDR's ln ROFDI	16.88166
	outward FDI differences	2.383402	outward FDI differences	4.05488
<i>Explanatory variables</i>	<i>% of gap explained (Cambodia)</i>		<i>% of gap explained (Lao PDR)</i>	
GDP	-753.00167		-870.9914	
IFDI	56.65133		64.55577	
ER	-76.24734		102.9849	
EX	414.7221		559.6906	
Wage	-5.381177		7.9291	
<i>Specification</i>	<i>Thailand-Myanmar</i>		<i>Thailand-Viet Nam</i>	
Outward FDI differences	mean of Thailand's ln ROFDI	20.93654	mean of Thailand's ln ROFDI	20.93654
	mean of Myanmar's ln ROFDI	17.24712	mean of Viet Nam's ln ROFDI	19.95613
	outward FDI differences	3.689418	outward FDI differences	0.9804158
<i>Explanatory variables</i>	<i>% of gap explained (Myanmar)</i>		<i>% of gap explained (Viet Nam)</i>	
GDP	-705.5302		-1156.147	
IFDI	50.21088		43.45513	
ER	9.097989		105.1401	
EX	452.8125		535.2434	
Wage	14.55412		14.26357	

rate. Meanwhile, the factor that causes outward FDI from Viet Nam is the level of export. The Oaxaca-Blinder Decomposition is also applied to explain the gap in differences of outward FDI by Thailand and the CLMV countries. The most important factors that can explain such outward FDI performance are GDP and the level of export. In order for Cambodia, Lao PDR, Myanmar, and Viet Nam to have increased outward FDI performance, the governments should promote exports and expand their GDPs to be more or less at a similar level of outward FDI to Thailand.

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