



## REGIONAL INTEGRATION AND FOREIGN INVESTMENT: THE CASE OF ASEAN COUNTRIES

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### ABSTRACT

*The importance of regional integration in stimulating foreign direct investment cannot be overemphasized. With a special focus on the ASEAN countries, this research paper investigates the role of regional integration in attracting foreign direct investment. We bring a novelty to this paper by dividing foreign direct investment into Inter-and Intra-ASEAN to see if both are determined by the same set of factors. If economic integration drives intra-ASEAN FDI we would expect such FDI to be unrelated to macroeconomic fundamentals in each country, while we would expect Extra-ASEAN FDI to be determined by macroeconomic fundamentals. We employed panel data model in the analyses and the findings show that FDI from rest of the world are determined by macroeconomic fundamentals especially market size (GDP) and exchange rate, while inter-ASEAN FDI is not significantly related to macroeconomic fundamentals but depends on previous investments in the region. This implies most investments in ASEAN from ASEAN are motivated by economic integration.*

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**Keywords:** Economic integration, Foreign investment, Panel data, Macroeconomic.

**JEL Classification:** C33, E22, F16, F21, P33.

### 1. INTRODUCTION AND RESEARCH PROBLEM

Regional integration has been on for more than four decades now, and countries have used it to pool their resources together to foster their political, economic and social interests. The idea behind regional association is that countries can better advance their common interest when they come together as a single bloc because what is difficult for an individual country to achieve may not be so when more countries pursue such interest collectively. Zhenqiang (2006), writing on the

rational for East Asia regional association states that Asian nation could effectively address their economic and political challenges by pooling their resources together for faster and sustained growth. The European Union has often been cited as the world's most successful regional association with the credit of using its strength achieve such goals of economic prosperity, peace and political stability in European states.

The ([Association of Southeast Asian Nations Secretariat, ASEAN](#)) was formed on August 8, 1967 by five member countries, namely, Indonesia, Singapore, Malaysia, Philippines and Thailand. Today, membership of the regional association has grown to ten with the joining of Brunei, Cambodia, Laos, Burma, and Vietnam. At its inception, the force behind ASEAN was politics, which is prevention of external interference in the internal affairs of member countries and nonsupport to opposition movements. As the first regional association in the East Asia region, ASEAN was able to promote better understanding among member countries and beyond, attracting more other five countries in its membership. The joining of the association by Brunei, Laos, Burma, and Vietnam makes ASEAN one of the most important regional associations in Asian continent today. With a population of over 500 million people and combined Gross Domestic Product exceeding \$1trillion ([Lohman and Kim, 2008](#)), what is happening in ASEAN countries is not only important to Asian continent and European nations but to the entire global community.

However, for nearly one and half decades after the declaration it appears not much has been achieved by the organization in the fulfillment of the objectives of the vision 2020. [Lohman and Kim \(2008\)](#) argue that despite its pledges, however, ASEAN economic integration remains more aspiration than reality.

## **2. EVOLUTION OF FOREIGN DIRECT INVESTMENT IN ASEAN**

The phenomenon of South-South FDI flows, particularly those arising from China and India, has generated significant interest from policymakers, academia and the popular press in recent times ([Hattari, 2008](#)). The rapid expansion of FDI from ASEAN countries has also been well documented by earlier studies, and the inter-regional interactions of these flows have equally been identified in the literature ([Hiratsuka, 2006](#)). Suffice it to note that the history of Intra-ASEAN FDI dates back to the East Asia financial crisis of 1997 which was characterized by serious region-wide depression and recession. Several economic processes of the ASEAN countries were also affected by the crisis. These include currencies, asset prices, stock market indicators, output and inflows of capital across ASEAN member countries. According to ([Thangavelu, 2007](#)), the experience of the ASEAN countries showed a drastic decline of net FDI inflows to about US\$12 billion between 1997 and 1998. Consequent upon the wave of liberalization in the mid-1980s, the ASEAN economies adopted free trade policies, capital account openness and a free market economy, thus, becoming an attractive haven for investment inflows between 1987-1994. For example, following the [ASEAN Statistical Yearbook \(2004\)](#), the FDI inflows into ASEAN countries grew from an annual average of \$8 billion in 1986-1991 to \$25.5 billion in 1997.

For nearly one and half decades, ASEAN FDI inflow has persistently fluctuated as a result of the Asian financial crisis in 1997-1998, the economic slowdown in US and Europe and the recession in Japan in 2001. After the Asian financial crisis in 1997-1998, the recovery of FDI inflow was remarkably swift in 1999, and it gradually decreased on account of the signs of the economic slowdown in US and Europe and the recession in Japan. However, ASEAN's FDI inflow recovered in 2003 with US\$ 20,304 million. As it were, from 1995-2003, Intra- and Extra- ASEAN FDI showed significant fluctuations. This was made evident by the fact from the previous year; Extra-ASEAN FDI in 2003 was up 74% compared to 2002, which was 43%. Also from 2006 to 2007, Extra- ASEAN increased from 83.3% to 86.0% and also rose to 86.2% in 2009. Indeed, this growth indicates a welcome return of foreign investors' confidences in this region (ASEAN Statistical Yearbook, 2011). Data from ASEAN Statistical Yearbook (2011) show that in 2010, FDI into the ASEAN yielded two-fold increase of US\$76.2 billion, from the pre-crisis level of US\$ 76 billion, in 2007. Also, in 2010, statistics showed that Singapore received more of the ASEAN FDI inflows, with 46.6% share of the total ASEAN FDI. This was followed by Indonesia (17.5%) and Malaysia (12.0%). In the same year, FDI inflows to the ASEAN accounted for 87% of total ASEAN capital inflows. FDI sources such as EU-27, intra-ASEAN, USA and Japan equally remained significant as providers of ASEAN FDI inflows for 2010. EU-27 contributed 22.4%, followed by intra-ASEAN (16%), USA (11.3%) and Japan (11%) (ASEAN Investment Statistics Database, 2011).

In the literature, foreign direct investment (FDI) has been identified as a key contributor to social and economic development (Chakrabarti, 2001; Asiedu, 2002; Durham, 2004). Also, FDI inflows are regarded as vital complements to development efforts of countries. FDI equally plays a crucial role as a vehicle for transferring technologies and enhancing competitiveness. UNCTAD (2011) suggests that countries' participation in Transnational Corporations' (TNC) regional production networks has become an effective way to build productive capacities and promote exports, industrial development and economic growth. This is also supported by empirical evidence which suggests that FDI Inflow raises national welfare by increasing the volume and efficiency of investment through accelerated spillover effects, improved competitiveness, technological transfer/diffusion and improvement in human capital (Borensztein *et al.*, 1998).

Overall, the flow of FDI to developing countries contributes to growth through two mechanisms, namely, increasing total investment in the host country and increasing productivity through technology and management spillover (De Mello, 1999). Against this background, the Association of Southeast Asian Nations (ASEAN) has agreed to function as an attractive investment destination and to contribute special conditions for multinational enterprises (MNEs) in order to stimulate the surge of FDI into this region.

### 3. BRIEF SURVEY OF LITERATURE AND MOTIVATIONS

Lim and Yi-Xun (2008) study the effectiveness of ASEAN network of arrangements in stimulating trade and foreign investment and also explore the characteristics of each arrangement

and how well they complement each other. The paper addresses these two areas by examining and evaluating past and present initiatives individually and collectively. Findings suggest that the fundamental impeding issues have endured over the years: lack of political will, ASEAN-style consensus-reliant negotiation, and insufficient management in implementing and harmonizing of initiatives.

Laifi (2008), in another study, investigates the impact of regional integration agreements (RIAs) on the location of banking sector FDI. The results showed that the impact of regional integration agreements vary significantly, depending on different kinds of regional integration. For example, he found that the response to integration between countries that are developed (that is North-North integration) differs from the response to integration between developing economies (that is South-South integration) or to an agreement between countries at different levels of economic development (that is North-South integration). According to (Laifi, 2008) this equally, depends on the locational advantage of the country or region, the nature and significance of environmental change brought about by the RIAs, and the degree of integration at the beginning.

Masron and Kamaruddin (2009) undertake an investigation into the impact of several macroeconomic convergences on the FDI flow into ASEAN. The study find that macroeconomic synchronization, which is believed to be a force in strengthening the formation of ASEAN Free Trade Area (AFTA) , has a significant impact on the inflow of FDI into the region. Ansari and Khan (2011) in another study find that the process of economic integration in South Asia gathered momentum with the implementation of the South Asian Preferential Trade Agreement (SAPTA) in 1995 under the broad framework of the South Asian Association for Regional Cooperation (SAARC). They also find that regional integration arrangements reduce trade costs among partner countries and this reduction in cost not only increase trade but also act as a stimulus to increase FDI flow.

Other works (for example,Zhang (2001) and (Aggarwal, 2008)) have also studied the impact and determinants of FDI inflow to ASEAN countries. But these research works failed to decompose FDI into intra- and extra-ASEAN FDI and some of these works used only five ASEAN countries thus ignoring the rest. To deepen our understanding of the role of economic integration in facilitating and driving FDI, we decompose FDI into these two categories, Intra-ASEAN and Extra-ASEAN FDI. Thus, if intra-ASEAN FDI is driven by economic integration, we expect macroeconomic fundamentals to be unrelated to FDI in each country. On the other hand, we would expect political conditions and macroeconomic fundamentals to determine Extra-ASEAN FDI. This paper is therefore novel because this particular subject have not been investigated by any other study to the best of our knowledge and filling these gaps would be a major contribution of this work to existing empirical literature. To this end we therefore ask: What is the extent of the mutual dependence among ASEAN countries in the area of investment flows as against their dependence on the rest of the world and do the same set of conditions determine intra-and extra-ASEAN FDI? These are our basic research questions and the key motivation for this research.

## 4. METHODOLOGY

### 4.1. Theoretical Framework

This study draws its framework from the hypothesis of Growth-led FDI. Contrary to the hypothesis of FDI-led economic growth, the GDP-driven FDI hypothesis is strongly based on the multinational corporation (MNC) theory. According to the Eclectic Paradigm, (Dunning, 1977) argues that MNCs with certain ownership advantages will invest in another country with locational advantages, and both advantages can be captured effectively by "internalizing" production, through FDI. The hypothesis of growth-led FDI, therefore, focuses on locational factors, such as market size (proxied by GDP or GNP), as the most significant factor in attracting FDI. As the market size (GDP) of the host country increases with a high rate of economic growth, ceteris paribus, FDI will increase, resulting from the expected higher level of profitability. High rates of economic growth will cause levels of aggregate demand for investments (both domestic and foreign) to rise (Corden, 1999; Zhang, 2001). In addition, better economic performance suggests better infrastructural facilities and greater opportunities for making profits. As a result the greater the market size, the greater the inflows of FDI into the recipient countries (Choong *et al.*, 2004).

### 4.2. Model Specification

In order to address the research question this study employs panel data model as specified in equation (1.1). FDI is decomposed into intra-and extra-ASEAN and trade openness, GDP, political risk and other macroeconomic factors in the ten ASEAN member countries are used as explanatory variables. The panel regression model is specified as follows:

$$FDI_{it} = \beta_0 + \beta_1 \log GDP_{it} + \mathcal{Z}_{it} + \phi_i + \mu_t \dots \dots \dots 1.]$$

where FDI=Foreign direct investment

GDP=Gross Domestic Product measured in US dollars

Z=vector of other macroeconomic factors such as interest rate, inflation rate, exchange rate, and volume of trade.

### 4.3. Data Sources

Secondary time series data were used in the analyses. The data for the analyses were obtained from the following secondary sources: ASEAN statistics updates; International Financial Statistics of the IMF; ASEAN Statistical Publications All available at: <http://www.aseansec.org/19230.htm>.

## 5. PRESENTATION AND INTERPRETATION RESULTS

Figure1 shows the evolution of intra-and inter-ASEAN FDI for all member countries. As can be seen from the figure, FDI from the rest of the world (extra-ASEAN FDI) has been consistently higher than the intra-ASEAN FDI. Again the figure shows that intra-ASEAN FDI fluctuates more

than inter-ASEAN FDI. This is further illustrated by overall standard deviations of the two variables reported in table3.

Table1 shows the model results. We reported both the fixed (FE) and random effects (RE) estimates. Hausman's test shows that the random effect estimates are not statistically different from the fixed effects estimates. Hence we chose to interpret the results based on random effects estimates. As shown in table1, market size (proxy by GDP) is statistically significant in the estimations. This implies that both intra-and extra-ASEAN FDI are market-seeking. However, the effect of large market size is more in attracting extra-ASEAN FDI than intra-ASEAN FDI (as measured by the size of the coefficients in columns 1 and 3 of table1). Investors go to invest in these countries primarily because of the market size since larger market is fundamental to ensure investment growth and reasonable returns on investment. The results also show that exchange rate behaviour in ASEAN countries have statistically significant negative effect on extra-ASEAN FDI while its effect on intra-ASEAN FDI is negative but not statistically significant. Surprisingly, except for few countries with substantial exchange rate volatility, exchange rate movements are similar in most ASEAN member countries (see figure 3).

The results in table1 also show that inflation in ASEAN countries have negative (though not statistically significant) effect on extra-ASEAN FDI. Surprisingly, inflation has statistically significant positive effect on the intra-ASEAN FDI. This might be interpreted as due to the effect of economic integration so that higher cross-border investments still occur within ASEAN despite high inflation in member countries. As shown in figure2, almost half of the member countries (especially Cambodia, Myanmar, and Lao) suffered high inflation volatility over the 7 sample period. The random effects estimates reported in table2 show that previous movements of investors into ASEAN (both from within and the rest of the world) have significant positive impact on the current levels of intra-and extra-ASEAN FDI. This implies that while FDI into ASEAN is market-seeking, investors are careful to monitor how FDI into ASEAN is evolving over time. The fact that they respond positively to previous investments imply that ASEAN has been a lucrative region for investment.

## 6. POLICY IMPLICATIONS AND CONCLUSION

Our results have important policy implications especially on policies that would be fundamental in attracting more extra-ASEAN foreign investment. First, growth enhancing economic policies would ensure continuous inflow of foreign investment into the region. Over the past decade following the ASEAN Financial Crisis, most ASEAN member countries have recorded substantial GDP growth and this was also the key to huge inflow of extra-ASEAN investments into the region after the Crisis period. Second, exchange rate stabilization and inflation control should occupy important positions in the monetary policy agenda of the central banks in member countries. After, the financial crisis many investors are still skeptical of the investment climate in the region. Therefore, the pursuance of good stabilization measures would help restore the confidence of foreign investors in the region. Based on our findings, rapid economic growth and

better economic policies (coupled with political stability) would set ASEAN as the next best destination for foreign investment in the coming decades.

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## Results Appendix

**Table-1.** Fixed and Random Effects Estimate of the Determinants of Intra and Inter ASEAN FDI (With Robust Standard Errors)

	<b>RE_Aseanfdi</b>	<b>FE_Aseanfdi</b>	<b>RE_ROWfdi</b>	<b>FE_ROWfdi</b>
log_exchr	-0.224 (0.069)	-0.887* (0.043)	-0.543*** (0.000)	-0.0949 (0.752)
log_gdp	0.297** (0.008)	0.814 (0.088)	0.507*** (0.000)	0.610** (0.008)
L.log_rowfdi	0.636*** (0.000)	0.510** (0.002)		
log_infla	2.882*** (0.000)	2.000** (0.007)	-0.589 (0.405)	-0.457 (0.507)
L.log_aseanfdi			0.131** (0.002)	0.115** (0.008)
_cons	-14.10*** (0.001)	-9.503 (0.087)	8.025* (0.017)	4.382 (0.262)
<i>N</i>	116	116	118	118

p-values in parentheses \* p< 0.05, \*\* p< 0.01, \*\*\* p< 0.001



**Table-2.**Fixed and Random Effects Estimate of the Determinants of Intra and Inter ASEAN FDI (With Robust Standard Errors and lags)

	RE_Aseanfdi	FE_Aseanfdi	RE_ROWfdi	FE_ROWfdi
log_exchr	-0.0202 (0.839)	-0.356 (0.423)	-0.141** (0.005)	0.142 (0.577)
log_gdp	0.0834 (0.356)	0.544 (0.197)	0.132* (0.012)	0.344* (0.035)
log_infla	1.004 (0.184)	0.625 (0.382)	0.245 (0.714)	0.0898 (0.890)
L.log_aseanfdi	0.616*** (0.000)	0.506*** (0.000)	0.0747* (0.040)	0.0587 (0.103)
L.log_rowfdi	0.336** (0.010)	0.331* (0.050)	0.721*** (0.000)	0.498*** (0.000)
_cons	-5.668 (0.129)	-4.985 (0.313)	0.216 (0.945)	-0.512 (0.894)
N	113	113	116	116

P-values in parentheses \* p< 0.05, \*\* p< 0.01, \*\*\* p< 0.001

**Table-3.** Panel Summary Statistics of the Variables

Variable		Mean	Std. Dev.	Min	Max	Observations
log_infla	overall	4.682032	.1248089	4.540098	5.490589	N = 140
	between		.0767557	4.610272	4.827704	n = 10
	within		.1011772	4.394426	5.371388	T = 14
log_exchr	overall	5.206718	3.531351	.3364722	9.744902	N = 140
	between		3.695968	.4867431	9.614855	n = 10
	within		.2963625	3.480207	5.947326	T = 14
log_rowfdi	overall	6.855789	1.79035	2.219203	10.45024	N = 133
	between		1.719469	3.605657	9.322365	n = 10
	within		.7095233	4.695532	8.824528	T-bar = 13.3
log_aseanfdi	overall	4.782714	2.080353	-2.302585	8.439556	N = 130
	between		1.709933	2.504959	6.792744	n = 10
	within		1.295247	-0.0248304	7.880611	T-bar = 13
log_gdp	overall	7.640259	3.48316	1.368639	14.59345	N = 140
	between		3.634098	1.93609	13.76234	n = 10
	within		.4011127	6.716259	9.228436	T = 14



