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THE IMPACTS OF OUTWARD FDI ON ECONOMIC GROWTH IN ASEAN-8 COUNTRIES: AN EMPIRICAL INSIGHT

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ABSTRACT

ASEAN's move to regionalise local enterprises has spurred outward foreign direct investment (FDI) flows as well as enabled sustained economic growth for ASEAN member states over the last two decades. This study examines the impact of outward FDI on economic growth in ASEAN-8 countries from 2000-2019. It employs the Pooled Mean Group (PMG) estimation approach to evaluate the effects of outward FDI on national economic growth. The findings indicate that outward FDI is positively and statistically significant in fostering economic growth in the ASEAN region over the short-run. However, such outward investments negatively impact the region's economic growth over the long-run. The results indicate that regional policy makers need to adopt a flexible approach when formulating policy initiatives that incentivise outward FDI to ensure the continued sustenance of economic growth in the ASEAN region.

1. INTRODUCTION

The past two decades have witnessed ASEAN establish itself as one of the fastest-growing regions in the world. In fact, ASEAN has maintained an impressive average annual GDP growth rate of approximately 5.7 per cent since 2000. This significant improvement in its GDP growth rate has been underpinned by local enterprise regionalisation as well as by continuous policy reforms at both regional and national levels. Today, outward foreign direct investment (FDI) is a crucial component of the region's growth narrative. In fact, FDI outflows in ASEAN have expanded dramatically in recent years, reaching more than US$ 125 billion in 2019. This transition to outward investment has empowered local ASEAN firms as they generate gains in competitiveness

and embed firm-specific advantages through increased exposure to international competition (Gómez-Mera et al., 2015). Amongst the benefits accrued by local companies via this government incentivised initiative include expanded market access, enhanced export channels, improved accessibility to partners and clients, and improved price competitiveness due to reductions in transportation and distribution costs. Consequently, outward FDI has become a significant catalyst in enhancing the capabilities of domestic industry while sustaining ASEAN's economic growth momentum. Given the critical nexus between outward FDI and economic growth, it is vital to examine how outward FDI affects ASEAN's economic performance.

Table 1: Outward FDI for ASEAN-8 countries.

Sources of outward FDI	2000-2009	2010-2019
	US$, Millon	US$, Million
Brunei Darussalam	1211.52	362.85
Cambodia	1012.85	2258.91
Indonesia	3681.67	16373.87
Malaysia	8614.72	9590.78
Philippines	4217.49	4445.76
Singapore	47691.47	65252.17
Thailand	12961.05	7195.13
Vietnam	10025.34	11396.96
Total ASEAN-8	**89416.12**	**116876.42**

Source: Data retrieved from *World Development Indicators* (WDI).
The values presented above refer to constant price in US$.

Table 1 shows the cumulative average of outward FDI flows from the ASEAN eight economies over 2000–2019. The data is divided into two periods: 2000-2009 and 2010-2019, with the goal of identifying the differences in outward FDI in ASEAN-8 throughout these two decades following the spike in outward FDI since the year 2000. With US$ 47,691.47 million and US$ 65,252.17 million in outward FDI from 2000 to 2009 and 2010 to 2019, respectively, Singapore is the greatest outward FDI investor (World Investment Report, 2020). From 2010 to 2019, Indonesia (US$ 16,373.87 million), Vietnam (US$ 7,195.13 million), Malaysia (US$ 9,590.78 million), and Thailand (US$ 9,590.78 million) are the other main contributors to total outward FDI in ASEAN-8. Outward FDI from Cambodia, Indonesia, and Vietnam, in particular, is growing rapidly. In a nutshell, ASEAN-8 countries' outward FDI increased between 2000 and 2019. This increased trend in outbound investment implies that ASEAN businesses are becoming more important in expanding their regional footprint and working in conjunction with multinationals to drive economic growth (AIR, 2019; AIR, 2021).

The effects of outward FDI on economic growth have been well documented by, amongst others. Outward FDI has greatly increased the economic growth of African countries, according to Obobisa et al. (2021). Furthermore, Amin et al. (2020) offered compelling evidence that outward FDI has a favourable and significant impact on Romania's economic growth, with the increase in outward FDI having a higher impact. Commonly, the studied literature has a gap in that some studies only looked at the influence of outward FDI on economic growth in developed countries (Lee, 2010; Herzer, 2010); others only looked at developing ones (Chen and Zulkifli, 2012; Wong, 2013; Al-Shawaf and Almsafir, 2016; Basar and Özkilbaç, 2016; Ameer et al., 2017; Lee and Sermcheep, 2017; Chen, 2018; Ahmed and Ibrahim, 2019; Mohanthy and Sethi, 2019; Amin et al., 2020; Obobisa et al., 2021). However, studies evaluating the impact of

outward FDI on economic growth in ASEAN is scarce. In addition, macroeconomic indicators such as domestic investment, exports, and political stability have often been overlooked as key control variables in previous studies. Generally, it is acknowledged that investment through capital accumulation is crucial in ensuring sustainable economic growth (Bayraktar, 2003; Acquah and Ibrahim, 2020). Apart from capital investments, exports also play an important role as they are a key measure of both productivity and aggregate demand and thus impact overall economic growth (Kalaitzi and Chamberlain, 2020). Finally, Hamdaoui et al. (2021) observed that political stability is also an important determinant of economic growth, as political instability is often cited as a major reason for economic malaise. Given the crucial role played by each of the aforementioned variables in enhancing economic growth, this study seeks to fill a gap in existing literature by investigating the effects of outward FDI, domestic investment, exports, and political stability on economic growth in the ASEAN-8 region.

This paper is structured as follows. Section 2 will outline the empirical model, methodology, and data used in the study, while Section 3, will delineate the study's findings. Finally, Section 4 will detail the relevant conclusions and policy implications.

2. EMPIRICAL MODEL, METHODOLOGY AND DATA
2.1 Empirical Model
The model adopted in this study is grounded by growth theory and is rendered as follows:

$$\ln\text{GDP}_{it} = \beta_1 + \beta_2\ln\text{OFDI}_{it} + \beta_3\ln\text{DI}_{it} + \beta_4\ln\text{X}_{it} + \beta_5\ln\text{PS}_{it} + \varepsilon_{it} \tag{1}$$

where ln denotes the natural logarithm. The dependent variable is the real gross domestic product (GDP) per capita measuring economic growth, $\ln\text{GDP}_{it}$. $\ln\text{OFDI}_{it}$ represents real outward FDI, $\ln\text{DI}_{it}$ is the real gross domestic investment, and $\ln\text{X}_{it}$ refers to the real exports of goods and services. $\ln\text{PS}_{it}$ represents domestic political stability, ε_{it} denotes the error term, and β_s represents the estimated coefficients. In this model, since real GDP per capita is the dependent variable which will be determined by OFDI, DI, X and PS, we can thus hypothesise that $\beta_2 > 0$, $\beta_3 > 0$, $\beta_4 > 0$, and $\beta_5 > 0$.

2.2   Data and Methodology
This study examines the impact of outward FDI, domestic investment, exports, political stability, and economic growth in ASEAN-8 countries, namely Brunei Darussalam, Cambodia, Indonesia, Malaysia, the Philippines, Thailand, Singapore, and Vietnam, from 2000–2019. Data on real GDP per capita, real outward FDI, real domestic investment, and real exports were retrieved from *World Development Indicators* (WDI) while that on political stability was derived from *World Governance Indicators*, World Bank. Table 2 presents the descriptive statistics of the aforementioned variables.

The Pooled Mean Group (PMG) estimator is then used to investigate the effects of outward FDI on economic growth in the ASEAN-8 countries. This estimate was selected as it resolves the heterogeneity problem by allowing short-run coefficients and error variances to vary between countries while simultaneously permitting long-run coefficient homogeneity by pooling countries over time (Pesaran et al., 1999). In addition, consistent coefficients are obtained despite the possible existence of endogeneity since the lag of both dependent and independent variables are included in the PMG estimations of the ARDL regression model (Pesaran et al., 1999). In other words, the PMG estimation is well equipped to determine both long-run and short-run dynamic relationships, while the panel ARDL is capable of addressing issues arising when variables have varying orders of integration, regardless of whether they are *I*(0) or *I*(1).

Table 2: Summary of descriptive statistics.

Variables	Mean	Min	Max	Std. Deviation
Economic growth, $\ln\text{GDP}_{it}$	8.540	6.060	10.992	1.409
Outward FDI, $\ln\text{OFDI}_{it}$	0.693	−1.655	3.578	1.009
Domestic investment, $\ln\text{DI}_{it}$	7.525	3.935	10.267	1.546
Exports, $\ln\text{X}_{it}$	8.749	5.709	12.193	1.818
Political stability, $\ln\text{PS}_{it}$	3.573	0.973	4.596	0.862

3. EMPIRICAL RESULTS

The results of panel unit root testing are as presented in Table 3. The findings illustrate that all variables are of mixed integration at *I*(0) and *I*(1). The estimations of the PMG method are as shown in Table 4. Using the Akaike Information Criteria (AIC), we chose a maximum lag length of 2 for all variables.

Table 3: Results of panel unit root tests.

Variables	LLC test		IPS test		Fisher-ADF test	
	Level	First Difference	Level	First Difference	Level	First Difference
Model with constant only						
$\ln\text{GDP}_{it}$	0.832	−6.523***	4.184	−6.102***	5.336	65.475***
$\ln\text{OFDI}_{it}$	−4.350***	−8.256***	−4.253***	−8.593***	52.025***	92.752***
$\ln\text{DI}_{it}$	−0.539	−10.173***	1.154	−8.787***	14.738	93.676***
$\ln\text{X}_{it}$	−1.110	−6.824***	1.032	−6.468***	11.080	68.075***
$\ln\text{PS}_{it}$	−5.215***	−11.816***	−5.196***	−10.245***	57.322***	124.543***
Model with constant and deterministic trends						
$\ln\text{GDP}_{it}$	−1.790**	−6.114***	−1.401*	−4.898***	22.796	52.203***
$\ln\text{OFDI}_{it}$	−2.453***	−5.760***	−2.217**	−5.609***	28.746**	61.108***
$\ln\text{DI}_{it}$	−4.234***	−7.707***	−3.051***	−6.133***	37.103***	62.465***
$\ln\text{X}_{it}$	−0.036	−5.563***	−0.321	−5.161***	18.465	53.194***
$\ln\text{PS}_{it}$	−4.977***	−7.158***	−4.702***	−8.083***	50.910***	81.080***

Notes: The asterisks ***, ** and * denote the significance levels at the 1, 5 and 10 per cent, respectively. LLC is the Levin-Lin-Chu and IPS is the Im-Pesaran-Shin. The optimal lag length is selected using the AIC, while the bandwidth is selected using Newey-West Barlett Kernel.

We obtained significant but negative coefficients for outward FDI over the long-run. This suggests that outward FDI has a negative impact on economic growth, wherein a 1 per cent increase in outward FDI will entail a reduction in economic growth of approximately 0.443 per cent. This finding is inconsistent with the results of Amin et al. (2020) and Obobisa et al. (2021), who disclosed that for many developing economies, economic growth responds positively and significantly to upswings in FDI outflows. This is, therefore, a wakeup call for ASEAN-8 countries to give special attention to outward investments and implement economic policies that encourage growth in sectors to realise the benefits of outward investment on economic growth.

In the short-run, however, the result shows that there is a positive relationship between outward FDI and economic growth, with an estimated coefficient value of 0.109 and one that was statistically significant at the 10 per cent level. This result affirmed the findings of Herzer (2010), Chen (2018), Ahmed and Ibrahim (2019), and Amin et al. (2020), who observed that outward FDI boosted economic growth over the short-run. This finding also revealed that outward FDI can be used by domestic businesses to expand into new international markets and import cheaper inputs from the host country, allowing them to

produce final goods in larger quantities with lower costs, boosting local production (Al-Sadiq, 2013; Knoerich, 2017; Amin, et al., 2020).

Table 4: Results of pooled mean group estimation.

Model: $\ln\text{GDP}_{it} = f(\ln\text{FDI}_{it}, \ln\text{DI}_{it}, \ln X_{it}, \ln\text{PS}_{it})$

Panel A: Long-run coefficients				
Variables	Coefficients	Std. error	t-statistics	*p*-values
$\ln\text{OFDI}_{it}$	–0.443*	0.227	–1.952	0.054
$\ln\text{DI}_{it}$	0.221***	0.064	3.447	0.001
$\ln X_{it}$	0.498***	0.075	6.620	0.000
$\ln\text{PS}_{it}$	0.061**	0.028	2.206	0.030
Panel B: Short-run coefficients				
ECT_{it-1}	–0.058*	0.034	–1.700	0.092
$\Delta\ln\text{FDI}_{it}$	0.109*	0.057	1.917	0.058
$\Delta\ln\text{DI}_{it}$	0.048***	0.018	2.708	0.008
$\Delta\ln X_{it}$	0.180***	0.056	3.221	0.002
$\Delta\ln\text{PS}_{it}$	–0.009	0.018	–0.493	0.623
Constant	0.191*	0.109	1.750	0.083

Notes: The asterisks ***, ** and * denote the significance level at the 1, 5 and 10 per cents, respectively. The lag structure of PMG-ARDL (1, 1, 1, 1) has been used for the above estimation.

As for the control variables, domestic investment, exports and political stability have a significant and positive impact on economic growth over the long-run. As a matter of fact, the results indicate that a 1 per cent rise in either domestic investment, exports or political stability enhances economic growth by 0.221 per cent, 0.498 per cent, and 0.061 per cent, respectively. In contrast, the results were somewhat mixed in the short-run. This is because although domestic investment and exports have a significant positive impact on economic growth in the short-run, the coefficients for political stability is insignificant and negative. The studies of Tran and Hoang (2019) and Shabbir et al. (2020), which evidenced a positive, significant impact of domestic investment on economic growth, are consistent with the results of this study. Further, the finding that exports drive economic growth means that higher international trade tends to increase competition in the local market, which in turn increases production efficiency and economic growth (Beaton et al., 2017; Okoro et al., 2020).

4. CONCLUSION AND POLICY IMPLICATIONS
Using the PMG panel estimation approach, this study examined the impact of outward FDI, domestic investment, exports, and political stability on the economic growth of ASEAN-8 nations. The findings reveal that outward FDI has a positive short-run impact on economic growth while having a negative long-run effect. Furthermore, domestic investment, exports, and political stability have a positive long-run relationship with economic growth.

The findings imply that ASEAN governments should deploy a variety of incentivisation strategies in order to achieve long-term economic growth via the outward FDI channel. Given outward FDI's potential as a catalyst for economic growth, the government should leverage on that potential by offering financial assistance, such as low-interest loans and subsidies for the relocation or offshoring of local enterprises. Taxation incentives such as tax exemptions on repatriation of profits and favourable provisions for tax expatriation should also be considered as alternative strategies. Finally, governments can provide support for outward FDI flows through non-financial measures such as enhancing outward investors' knowledge of technology and production skills.

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