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THE CONTRIBUTION OF EMERGING COUNTRIES' OUTWARD FOREIGN DIRECT INVESTMENT TO HOME COUNTRIES' ECONOMIC GROWTH*

BEE WAH TAN [a], CHOR FOON TANG [b] AND TECK KHUN LOO [c]

[a] *Universiti Utara Malaysia, Malaysia*
[b] *Universiti Sains Malaysia, Malaysia*
[c] *UOW Malaysia KDU Penang University College, Malaysia*

Using balanced panel data from 2000 to 2019 across 10 Southeast Asian economies, this study attempts to examine the effects of outward FDI and other factors on economic growth. FDI outflows, political stability, and savings have a positive impact on economic growth. Outward FDI is necessary for ASEAN's economic expansion because it facilitates knowledge and technology transfer, both of which are essential for sustainable growth. As such, the majority of the countries in Southeast Asia are embracing outward FDI with the goal of increasing productivity and, hence, promoting economic growth.

Keywords: ASEAN, Outward FDI, Economic Growth, Political Stability, Savings
JEL Classification: E22, F21, F43

1. INTRODUCTION

When a domestic corporation expands its operations to a foreign country, this is referred to as "outward foreign direct investment" (OFDI). This could happen as a result of, among other things, a merger, acquisition, or expansion. By acquiring enterprises or buying shares in industrially developed and technologically advanced countries and regions, and directly operating or participating in operations and management, one can absorb the advanced technology and learn effective management experience and methods, which will help improve the country's overall technological level, improve the efficiency of business operations (Herzer, 2011a). By increasing the firm's value chain, boosting trading channels, and cutting transportation costs, seeking outward FDI may

* Corresponding author: Chor Foon Tang.

also help to improve diversification and investment prospects (ASEAN Investment Report, 2012). Consequently, outward FDI improves a country's investment competitiveness by transferring knowledge and technology (Stephenson and Perea, 2018; Lee and Sermcheep, 2017). As a result, empirical validation of outward FDI's economic impact on emerging economies, especially Southeast Asian countries, is critical.

In 2020, the worldwide economy decreased by 3.2 per cent because of the catastrophic impact of the new crown coronavirus disease (COVID-19) epidemic on the global economy. The pandemic resulted in a more significant drop in foreign direct investment in 2020 (International Monetary Fund, hereinafter, IMF, 2021). Global FDI flows fell by 35 per cent to US$1 trillion in 2020, from US$1.5 trillion in 2019, according to the United Nations Conference on Trade and Development (UNCTAD, 2021). As a result, global FDI declined more dramatically in 2020 than global GDP (GDP). Despite the COVID-19 pandemic, Southeast Asia remained a popular target for foreign direct investment (FDI), both inflows and outflows. As a result, ASEAN's share of global investment outflow increased from 6 per cent in 2019 to 8 per cent in 2020 (IMF, 2021). In some countries, Singapore is the largest investor group, accounting for 40 per cent of FDI in Vietnam and 25 per cent in Indonesia (IMF, 2021). In addition, Thailand's outward FDI more than doubled to US$17 billion by 2020, while Indonesia's and the Philippines' outward investment increased to US$4.5 billion and US$3.5 billion, respectively (IMF, 2021). In turn, ASEAN's overall FDI outflows accounted for 48 per cent of global flows in 2020, an increase of 36 per cent from 2017 (17 per cent) (ASEAN Investment Report, 2021). The ASEAN Investment Report highlighted that annual outward FDI consistently exceeded inward FDI, with Singapore remaining the largest regional investor, followed by Malaysia, Thailand, Indonesia, and Vietnam (see ASEAN Investment Report, 2012, 2019, 2021). Henceforth, the governments of these countries will resolutely implement the decisions and arrangements, focusing closely on the development of a new pattern, and coordinating the promotion of epidemic prevention and control of overseas enterprises and project personnel, as well as foreign investment and cooperation reform. Therefore, a study on how outward FDI contributes to economic growth is vital in order for governments to design a dedicated outward FDI programme to assist home country investors in hunting outside their countries.

In our review of past literature, many studies on the impact of outward FDI on economic growth have been conducted in developed countries (Murthy, 2015; Imbriani et al., 2011; Barry et al., 2010; Lee, 2010). Due to their earlier realisation of the industrial revolution, these developed countries have greatly improved their productivity and accumulated excess capital in foreign trade. In addition, previous research has looked into the impact of outward FDI on economic growth in emerging economies (e.g., Amin et al., 2022; Abdulsalam et al., 2021; Chen, 2018; Ameer and Xu, 2017; Kazemi et al., 2017; Lee and Sermcheep, 2017; Basar and Özkilbaç, 2016; Wong, 2013; Herzer, 2011b; Lee, 2010; Ghost and Wang, 2009). However, most of them are country-specific studies, while collective research work, particularly in the Southeast Asian region, is almost non-existent.

Additionally, the model used in earlier studies has omitted the role of savings and interest rates in explaining growth, violating the neoclassical and post-Keynesian monetary theories. According to these theories, savings and interest rates are two important factors that affect growth. Hence, omitting these variables as in previous studies may provide biased estimation results. We take the initiative to address the shortcomings and contribute to the body of knowledge by examining the impacts of outward FDI, savings, interest rates, and other determinants on ASEAN economic growth, using the static panel regression approach. The estimation results from panel data analysis are more reliable and comprehensive concerning the time-series. This is because the sample size is larger and considers both the time-series and cross-sectional variations. By doing so, the findings may not only enrich the outward FDI-growth literature but also contribute to policymaking to further accelerate the economic growth of ASEAN economies.

The remainder of this paper is organised as follows. The empirical model, methodology, and data are presented in Section 2. Section 3 reports the empirical results, and Section 4 provides the conclusions and policy implications.

2. A BRIEF LITERATURE REVIEW ON THE RELATIONSHIP BETEEEN OUTWARD FDI AND ECONOMIC GROWTH

As a consequence of the increasing economic growth and investment liberalisation policies, investors from developing and transition nations have continued to expand internationally (UNCTAD, 2014). Investment through capital accumulation is, in a literal sense, the instrument for achieving sustainable economic development (Bayraktar, 2003). Therefore, a nation's ability to invest in the form of investments in the host country or investments received from source countries is crucial to its economic growth and development (OECD, 2002).

In this paper, Herzer (2008), who used panel co-integration techniques to analyse 14 industrialised countries, found that outward FDI has favourable long-run benefits for domestic output. The paper also discovers that outward FDI and growth have a bidirectional long-run causal relationship. Based on his findings, he claims that increased outward FDI is both a result and a cause of increased domestic output. Ghosh and Wang (2009) used panel data estimation to estimate the influence of both inward and outbound FDI on economic growth in OECD nations from 1980 to 2004. According to their findings, both inward and outward FDI positively contribute to economic growth in the OECD. Lee (2010) found similar results, finding that outward FDI has a positive influence on GDP per capita only in the long run. On the other hand, Herzer (2011a, 2011b) claimed that outflows of foreign direct investment (FDI) from developing countries have outpaced those from developed ones. Through productivity spillovers,

outward FDI has the potential to influence not just the productivity of the investing firms but also the productivity of the entire economy. In other words, when investing abroad, companies may essentially imitate their headquarters' manufacturing processes. Both of these empirical study findings imply that outward FDI has a long-run positive effect on domestic total factor productivity in developing countries, and that higher factor productivity is both a result and a cause of more outward FDI.

Kazemi et al. (2017) examined the effect of outward FDI on domestic output in East Asian nations from 1981 to 2010 at both the aggregate and disaggregate levels. This study concentrates these eight East Asian nations' outward FDI to Japan, the United States, and the United Kingdom. The findings, based on aggregate data, show that there is little evidence indicating that outward FDI promotes growth. Nevertheless, disaggregated data indicates that only outward FDI to the United States supports East Asian economies. Investments in Japan and the United Kingdom, on the other hand, do not appear to be having a positive effect. These findings imply that choosing the right place for outward FDI is vital, as not all destinations will benefit the source countries. Ameer and Xu (2017) looked at the effects of inward and outward FDI on economic growth in emerging economies from 2005 to 2014. Using various econometric methodologies like ordinary least squares (OLS) and generalised method of moments (GMM), the positive and significant effects of FDI inflows and outflows on economic growth are highly robust. This result is consistent with Chen (2018), where the outward from provincial firms and state-owned enterprises (SOE) both have a positive impact on China's provincial economic growth. This could be because of reverse knowledge spillovers from outward FDI to the home provincial economy via imitation, backward and forward industrial linkages, labour migration, and other factors that boost home firm productivity and hence promote home economic growth.

3. METHODOLOGY AND RESULTS

Based on the previous studies (Wong, 2013; Herzer, 2011a, 2011b) and the theories of neoclassical economic growth, post-Keynesian monetary policy, as well as institutional economics, we augment the outward FDI-growth model by accommodating savings, interest rates, and political stability. The Cobb-Douglas production function is used as the fundamental framework of the present study. At first, the production function can be expressed as:

$$Y = AK^{\alpha}L^{1-\alpha}, \tag{1}$$

where Y denotes output, K denotes capital, L denotes labour, and the A denotes a vector of other factors that improve level of technology and economic efficiency such as interest rates, savings, and political stability. Assuming constant return to scale, then $0 < \alpha < 1$. Besides, the per capita form of production function can be expressed as:

$$y = \frac{Y}{L} = \frac{AK^{\alpha}L^{1-\alpha}}{L} = \frac{AK^{\alpha}}{L^{\alpha}} = A\left(\frac{K}{L}\right)^{\alpha} = Ak^{\alpha}. \quad (2)$$

Therefore, Equation (2) shows that per capita output is a function of capital and other factors. In the context of this study, capital (k) is represented by foreign capital outflows (OFDI), whereas other factors, A are referred to as interest rates (R), domestic savings (SAV), and political stability (PS), which help to advance technological progress and economic efficiency. Hence, we use the following log-linear growth model to estimate the impacts of outward FDI and other macroeconomic factors on economic growth in ASEAN economies:

$$\ln GDP_{it} = \beta_1 + \beta_2 \ln OFDI_{it} + \beta_3 \ln SAV_{it} + \beta_4 R_{it} + \beta_5 \ln PS_{it} + \varepsilon_{it}, \quad (3)$$

where ln denotes the natural logarithm, ε_{it} denotes the error-term, and β_s are the estimated coefficients. $\ln GDP_{it}$ is the real per capita GDP, $\ln OFDI_{it}$ represents the per capita real outward FDI, $\ln PS_{it}$ is the political stability index, $\ln SAV_{it}$ is the per capita real gross domestic savings, and R_{it} is the real interest rates. This study covers the balanced panel data from 2000 to 2019 across 10 Southeast Asia economies. These data are retrieved from the *World Development Indicators (WDI)* and *Worldwide Governance Indicators* (WGI) databases. The countries under investigation include Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam. To understand the characteristics of the data, Table 1 reports a summary of the descriptive statistics for each variable.

Table 1. Summary of Descriptive Statistics

Variables	Mean	Min	Max	Std. Deviation
Economic growth, $\ln GDP_{it}$	8.207	5.835	10.987	1.436
Outward FDI, $\ln OFDI_{it}$	2.809	–4.287	7.476	1.991
Savings, $\ln SAV_{it}$	7.202	2.514	10.503	1.764
Interest rates, R_{it}	4.481	–18.227	35.415	6.607
Political stability, $\ln PS_{it}$	3.495	0.973	4.596	0.839

The static panel regression approaches, namely pooled ordinary least squares (OLS), random effect (RE), and fixed effect (FE) models are utilised to estimate the growth model[1]. The estimation results are reported in Table 2. Generally, we find that the

[1] To avoid the issue of spurious regression, we perform the Larsen's system-wide panel cointegration test. We find that the variables are cointegrated. Hence, our application of static panel regression is not spurious, and the findings are reliable. To conserve space and protecting the coherence of the write-up, the entire cointegration results will not be presented here but available up request.

goodness-of-fit statistics such as R-squares, F-statistics, and Wald statistics consistently show that all the estimate models are well-fitted to the data. However, the poolability F-test and the Breusch-Pagan LM test both suggest that the pooled OLS is not suitable for use in this study owing to the presence of country-specific effects. Furthermore, the Hausman specification test is statistically significant at the 1 per cent level, suggesting that the FE model is relatively more efficient than the RE model. Despite the specification tests suggesting that the FE model is preferable, we find strong evidence of heteroskedasticity, serial correlation, and cross-sectionally dependent residuals. Therefore, the procedure of robust standard errors introduced by Driscoll and Kraay (1998) is applied to address imperfections, particularly the cross-sectionally dependent. The corrected results are presented in the last column of Table 2.

Table 2. Results of Panel Regression Analysis

Variables	OLS	RE	FE	FE (Robust)
Constant	3.208***	4.557***	6.455***	6.455***
	(0.000)	(0.000)	(0.000)	(0.000)
Outward FDI, $\ln OFDI_{it}$	0.074***	0.079***	0.047***	0.047**
	(0.001)	(0.000)	(0.006)	(0.032)
Savings, $\ln SAV_{it}$	0.759***	0.477***	0.221***	0.221***
	(0.000)	(0.000)	(0.000)	(0.003)
Interest rates, R_{it}	–0.003	–0.002	0.001	0.001
	(0.387)	(0.486)	(0.782)	(0.719)
Political stability, $\ln PS_{it}$	–0.142***	0.043	0.051	0.051*
	(0.001)	(0.363)	(0.203)	(0.082)
Diagnostic analysis				
Observations	195	195	195	195
Time-dummies	Yes	Yes	Yes	Yes
R-squares	0.958	0.535	0.597	0.597
F-statistics / Wald statistics	294.960***	407.120***	18.060***	2487.430***
	(0.000)	(0.000)	(0.000)	(0.000)
$F_{\text{POOLABILITY}}$	37.710***	–	–	–
	(0.000)			
$\chi^2_{\text{BREUSCH-PAGAN}}$	108.160***	–	–	–
	(0.000)			
χ^2_{HAUSMAN}	–	64.960***	–	–
		(0.000)		
χ^2_{HETERO}	–	–	82.620***	–
			(0.000)	
χ^2_{SERIAL}	–	–	895.249***	–
			(0.000)	
Pesaran CD-test	–	–	18.038***	–
			(0.000)	

Note: The asterisks of ***, ** and * represent the significance at the 1, 5, and 10 per cent levels, respectively. Figures in (.) represent the *p*-values. The procedure suggested in Driscoll and Kraay (1998) is used to compute the robust standard-errors for FE.

The results reveal that savings and political stability are positively related to economic growth in the ASEAN region. These findings are corroborated by theories and earlier empirical studies, where savings are an important growth source through capital accumulation (Tang and Tan, 2017). Moreover, political stability encourages private investment and consumer spending, thereby accelerating economic growth (Hamdaoui et al., 2021; Uddin et al., 2017). Besides, we find that outward FDI has a significant positive impact on economic growth in ASEAN countries. This confirms the findings of Herzer (2010; 2011b) and Chen (2018). Additionally, outward FDI can stimulate economic growth in the home country by boosting consumption, promoting investment, facilitating exports, and expanding government expenditures by collecting higher tax revenue (ESCAP, 2020). In terms of magnitude, a 1 per cent increase in savings, political stability, and outward FDI, on average, economic growth increases by approximately 0.221, 0.051, and 0.047 per cent, respectively. Hence, we can conclude that the growth rate of ASEAN countries can be accelerated if they can improve outward FDI, savings, and the political environment.

4. CONCLUSION AND POLICY RECOMMENDATIONS

Using panel data techniques, we examine outward FDI and other drivers of economic growth in the ASEAN region. The results indicate that outward FDI, political stability, and savings positively influence economic growth, providing a basis for various policies to be formulated by ASEAN countries' governments. Given that outward FDI is a new spectrum of economic growth instruments, ASEAN countries' governments should include it in their national development strategies. First, they should conduct a comparative evaluation of outward FDI policy governance in other relevant outward-investing countries, such as China, Japan, and Korea. The emphasis should be on aligning outward FDI flows more closely with national policy priorities and strategic directions discussed. Consequently, the design and implementation of the ASEAN policy package must focus on promoting outward FDI in high-value added businesses, such as new technology or high-value global brands or assets. Furthermore, policymakers should enhance stakeholder relationships and should strive towards policy development. They should, for example, encourage private enterprises to improve their absorption capacity through training skills programmes, the provision of infrastructure, networking, and building partnerships. Additionally, this will boost the country's competitive spirit to attract FDI and explore the market potential for knowledge spillovers and technology transfer.

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Mailing Address: Chor Foon Tang, Centre for Policy Research, Universiti Sains Malaysia, 11800 USM, Penang, Malaysia, E-mail: tcfoon@usm.my.

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