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REVISITING THE FOREIGN DIRECT INVESTMENT-LED AND EXPORT-LED GROWTH HYPOTHESES IN ASEAN+3 COUNTRIES

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In this paper, the effects of Foreign Direct Investments (FDIs) and exports on economic growth in the Association of Southeast Asian Nations Plus Three countries are explored. The panel data of a total of 13 countries pertaining to the period from 2008 to 2018 were analyzed. Based on the result of the Lagrange Multiplier (LM) test, the data fit to the random effect model. In a similar fashion, the Wald test suggests that there is no endogeneity problem in the given model. Furthermore, the results of the Hausman and Chow test also indicate that the random effect model is the most effective model to describe the effects of FDIs and exports on economic growth. The results prove that FDIs positively impact economic growth. In addition, exports also have a positive and meaningful effect on economic growth. Overall, the paper empirically confirms FDI-led growth and export-led growth. To conclude, the findings indicate the fact that FDIs and exports are crucial for boosting the economic growth of the ASEAN+3 countries. The ASEAN+3 region remains quite an attractive destination for international companies around the world when FDIs and trade are concerned.

Keywords: ASEAN+3, foreign direct investments, export, growth, panel data

JEL Classification: F15, F20

INTRODUCTION

Starting in July 1997, several East Asian and Southeast Asian countries began to suffer from the East Asian financial crisis that raised concerns about possible global economic meltdowns due to financial contagion. As such, the East Asian financial crisis gained in significance among and became focused on by policymakers and scholars (Miankhel, Thangavelu & Kalirajan, 2009). At the ministerial and head-of-government levels, the governments of the 10 Southeast Asian and three East Asian countries

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regularly met to discuss strategies to prevent potential financial crises and promote regional cooperation. A Joint Statement on the Cooperation of East Asia, recognized as ASEAN Plus Three (ASEAN+3 or APT), was issued by the 13 heads of government in 1999. It emphasized their dedication to deepening global, financial, social and political dialogues in order to foster cooperation in the areas of a mutual interest and concern, including the energy, transportation, information and communication infrastructures.

In 2017, a strong global economic growth of 3.7% positively influenced trade and investment growth between the ASEAN+3 countries (ASEAN Secretariat, 2020). The total trade increased by 16.1% to USD 807.3 billion, accounting for 31.6% of the total merchandise trade in ASEAN. In addition, the ASEAN+3 Foreign Direct Investments (FDI) flows were estimated at USD 29.9 billion, thus constituting 21.8% of ASEAN's overall FDI inflows (ASEAN Secretariat, 2018).

Trade with China, Japan, and the Republic of Korea helped ASEAN to gain a significant momentum during the global economic uncertainties. In 2018, the trade of ASEAN Plus Three increased by 6.8% to USD 869.1 billion, or 31.0% of ASEAN's total trade. The FDI flows from the Plus-Three nations to ASEAN were measured at USD 37.9 billion. ASEAN accounted for 24.5% of the overall FDI inflows, which increased by 9.9% compared to the previous year (ASEAN Secretariat, 2020). In a similar fashion, T. Widodo (2009) noted that the trends of the comparative advantage of the ASEAN+3 countries had changed. Therefore, the relationship between the growth of the economy, FDIs and exports in the ASEAN+3 countries should be recognized. To understand how these variables work from the point of view of the policy would improve economic growth.

In developing and developed countries, the relationship between FDIs, exports and economic growth remains scholars' significant theoretical and empirical interest (Acaravci & Ozturk, 2012). Recently researchs, Md. R. Sultanuzzaman, H. Fan, M. Akash, B. Wang and U. S. Md. S. (2018) and A. Jamal and M. A. Bhat (2019), have demonstrated the roles of both exports and FDIs in economic growth. Several previous studies suggest that FDIs are the key determinant of overall growth (see the review of the literature on FDI-led growth). However, the theory of export-led growth claims that exports are a significant predictor of overall growth (see the review of the literature on export-led growth). In a similar fashion, S. Sermcheep (2019) also empirically demonstrated ASEAN's export-led growth in services over the past decades. As such, this paper focuses on both the developing and the developed ASEAN and East Asian countries. Taking into consideration the fact that these countries are at various levels of development, the impact of exports and FDIs on growth in the different phases of growth are arguably established in this research study.

The issue is addressed in this paper in several sections. A literature review and the hypothesis development are established in the second section. In the third and fourth sections, the methodology is explained, the empirical results are presented, and a discussion is given. The last section of the paper addresses the drawbacks and ideas for future studies.

LITERATURE REVIEW

Foreign Direct Investments-led growth

The theoretical basis for the academic research in FDIs and growth originates from either neoclassical growth or endogenous growth model (Nair-Reichert & Weinhold, 2001). The neoclassical growth of the Solow growth model indicates the fact that FDIs increase capital stocks, as well as growth in the host economy, by financing capital formation (Brems, 1970). As countries shift towards a new steady state (domestic investment), FDIs only have a short-term impact on growth. However, the endogenous growth model explains that FDIs are widely acknowledged as more efficient than domestic investments, given the fact that they facilitate the inclusion of new technologies in the production function of the host economy (Borensztein, Gregorio, De & Lee, 1998).

The ultimate effect of FDIs on the production growth of the host economy depends on the extent of the

productivity spillovers of domestic companies (De Mello, 1997). It is possible due to the existence of a bidirectional statistical relationship between FDIs and production growth (Yalta, 2013). Based upon the FDI-led growth hypothesis, FDI inflows will stimulate development for host countries by raising capital stocks, establishing new employment opportunities and encouraging a technology transfer (Borensztein, Gregorio, De & Lee, 1998; De Mello, 1997). In other words, FDIs contribute to the enhancement of the returns of domestic outputs and the quality of the FDI-related value added of production. Additionally, current studies have shown the beneficial effects of FDIs on growth (Adams, 2009; Moudatsou & Kyrkills, 2011; Acaravci & Ozturk, 2012; Mahmoodi & Mahmoodi, 2016; Hussain & Haque, 2016; Jamal & Bhat, 2019). However, by crowding out domestic investments, growing external vulnerability and creating dependence, it is also anticipated that FDIs will adversely affect growth (Aitken & Harrison, 1997). Furthermore, as the neutrality hypothesis suggests, there seems to be no significant correlation between FDIs and growth, either (Yalta, 2013). For these reasons, the first hypothesis that can be proposed is as follows:

H1: ASEAN+3 countries demonstrate FDI-led growth.

Export-led growth

Early discussions on the export-led growth problem were only focused on the framework for correlation analysis and the simple regression model (Balassa, 1978; Heller & Porter, 1978). In stimulating economic development, an export-led growth strategy is a preferred policy prescription (Lim & Ho, 2013). The relationship between exports and economic growth is referred to as export-led growth, i.e. the situation that emerges from an increase in the export capacity of a nation. In the literature on international trade and development, studies with export-led growth hypotheses are hardly a new field of research (Tang, Lai & Ozturk, 2015). According to K. K. Gokmenoglu, Z. Sehnaz and N. Taspinar (2015), the theory of trade argues that exports support the domestic economy across many channels. They are the only part of demand that can compensate for growth in terms of requirements for the growth of imports (capital goods) (McCombie & Thirlwall, 1994). This is an important explanation of the reason why, by pursuing an export-led growth strategy, exports matter and provide a justification for why countries benefit. Exports improve the economic growth through adding to gross production across the efficient utilization of resources and the creation of the resources based on foreign exchange. The reciprocal relationship between exports and growth is also connected with the export-led growth hypothesis (Petchko, 2018). Export-led growth theory assumes that international trade policies focus on exports driving economic growth (Richards, 2010; Yamada, 1998). Moreover, recent research studies have also shown that exports have a positive impact on growth (Acaravci & Ozturk, 2012; Mahmoodi & Mahmoodi, 2016; Hussain & Haque, 2016; Priyankara, 2018; Sermcheep, 2019; Jamal & Bhat, 2019). However, no causal relationship is likely to exist between exports and economic growth (Ramos, 2001; Hsiao & Hsiao, 2006; Shawa & Shen, 2013). Therefore, the second hypothesis that can be proposed is as follows:

H2: ASEAN+3 countries demonstrate export-led growth.

METHODOLOGY

The three macroeconomic variables used in this study include economic growth, FDIs, and exports. Economic growth is the annual actual GDP growth rate, while FDIs are annual stock inflows. Lastly, exports apply to both the annual outflows of goods and the annual outflows of services. The data include the annual findings of the UNCTAD in 13 ASEAN+3 countries in the period from 2008 to 2018.

Moreover, R. C. Hill, H. E. Griffiths and G. C. Lim (2018) reveal that the stationarity test with one lagged difference eliminates the problem of autocorrelated residuals. The following equation 1 represents the stationarity test with a constant trend and no trend at all.

$$Y_{it} = \alpha_i + \gamma_i Y_{it-1} + \lambda_{it} + v_{it} \quad (1)$$

In addition, the models of the regression of the panel data are suggested in this paper. The following equations 2, 3, and 4 illustrate the three models (Hill, Griffiths & Lim, 2018), namely:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + e_{it} \quad (2)$$

$$Y_{it} = \beta_{0i} + \beta_1 X_{1it} + \beta_2 X_{2it} + e_{it} \quad (3)$$

$$Y_{it} = \overline{\beta}_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + v_{it} \quad (4)$$

where,

Y_{it}: the economic growth of the i country in the t period

x_{1it} : the FDIs of the i country in the period t

x_{2it} : the exports of the country i in the period t

β_0 : the intercept parameter

β_{0i} : the inndividual intercept

$\overline{\beta}_0$: the population average

β_1, β_2 : the regression coefficients

e_{it} : the error term of the country i in the period t

v_{it} : the composite error term*

Note: *In order to accommodate such heterogeneity, e is decomposed into two independent components or the composite error term ($v_{it} = \lambda_i + e_{it}$). It is assumed that e_{it} is i.i.d with the mean zero and variance (the remainder error term or the regular error term), λ_i refers to the individual-specific effect (unobserved heterogeneity) and is time invariant - it is constant across individuals (Law, 2018).

RESULTS AND DISCUSSION

The outcomes of several studies are discussed in this section. The descriptive statistics of the variables are found in Table 1.

Table 1 The summary of the descriptive statistics

Statistics	Y	X_1	X_2
Mean	3.522181	19169.04	45920.91
Median	3.801313	7600.000	20439.20
Maximum	9.844420	139043.5	266841.2
Minimum	-5.428591	-1758.334	5.766000
Std. Dev.	2.921867	34047.11	61878.69
Skewness	-0.705468	2.428814	1.450529
Kurtosis	3.727946	7.727336	4.191772
Jarque-Bera	15.01885	273.7512	58.60890
Probability	0.000548***	0.000000***	0.000000***
Sum	503.6719	2741173.	6566690.
Sum Sq. Dev.	1212.298	1.65E+11	5.44E+11
Observations	143	143	143

Note: *** p<1%

Source: Authors

As is shown in Table 1, the mean values are positive for all the variables. Meanwhile, the exports (X_2) and the FDIs (X_1) have the highest standard deviation (61,878.69 and 34,047.11, respectively), which represents the volatility of the observation values. Furthermore, economic growth (Y) has the lowest standard deviation (2.921867). Jarque-Bera's indicate that the residual values of all the variables are usually distributed at 1%. Next, the correlation findings are summarized in Table 2.

Table 2 shows that the correlations between these three variables vary from -0.097417 to 0.481866. Interestingly, the FDIs (X_1) and the exports (X_2) demonstrate the strongest correlation, while economic growth (Y)

Table 2 Correlation

Variable	Y	X_1	X_2
Y	1.000000		
X_1	0.309831	1.000000	
X_2	-0.097417	0.481866	1.000000

Source: Authors

and the exports (X_2) have the weakest correlation. Thus, the FDIs and the trade flows in the ASEAN+3 countries were closely associated. The influence of FDIs on economic growth does not necessarily have to be the result of the statistically significant coefficient of the FDIs in the growth equation. The positive correlation could also be consistent with the causality from growth to FDIs, provided that rapid economic growth typically created higher demand and better profit opportunities for FDIs (Nair-Reichert & Weinhold, 2001). With the level [I(0)] and the first difference [I(1)], the following Table 3 summarizes the results of the stationarity test.

Table 3 reveals the fact that the economic growth (Y) is stationary at the level of I(0), as can be seen from the statistics value of -18.5401 that is greater than the 99% confidence level and the probability value of 0.0000 ($p < 0.01$). In addition, the foreign direct investment (X_1) variable has the statistics value of -7.67164 that is greater than the 99% confidence level and the probability value of 0.0000 ($p < 0.01$). In a similar fashion, the export (X_2) variable has the Augmented Dickey-Fuller value of -6.70535 that is greater than the 99% confidence level and the probability value of 0.0000 ($p < 0.01$). According to N. R. Ericsson, J. S. Irons and K. W. Tryon (2001), the relationship between FDIs and growth was usually limited to the first differences [I(1)] by standard cross-country and panel studies on FDIs and growth. Based on the results, the panel stationarity test with the first difference also reveals that all the variables are stationary. The results of the Lagrange Multiplier and the Wald tests are shown in Table 4.

Table 3 Stationarity

Variable	Statistics		Probability		Conclusion
	Level	First Difference			
Y	-18.5401	-19.0857	0.0000***	0.0000***	Stationary
X_1	-7.67164	-9.54222	0.0000***	0.0000***	Stationary
X_2	-6.70535	-4.27350	0.0000***	0.0000***	Stationary

Note: *** p<1%

Source: Authors

Table 4 The results of the Lagrange Multiplier and the Wald Tests

Test Statistics	Value	df	Probability
t-statistic	2.036377	127	0.0438
F-statistic	4.146829	(1, 127)	0.0438
Chi-square	4.146829	1	0.0417
C(1)	6.14E-05		2.89E-05
Breusch-Pagan LM	229.4771		0.0000***
Pesaran scaled LM	12.12787		0.0000***
Pesaran CD	3.546466		0.0004***

Note: *** p < 0.01

Source: Authors

Table 4 shows that there is a random impact on the model, as suggested by the Breusch-Pagan value of 229.4771 (greater than the 99% confidence level) and the probability value of 0.0000 ($p < 0.01$). In a similar fashion, the Wald test has a probability value above the conventional significance level ($p > 0.01$). Wald tests suggest no endogeneity problem in the model. Table 5 displays the results of the pooled (OLS), fixed-effect and random-effect models.

Table 5 reveals that both the Hausman and the Chow tests suggest that the random effect model is best model. The table shows that the probability of the Hausman and the Chow tests is greater than 5%. The random-effect model shows that FDIs (DX_1) significantly affect economic growth (thus supporting H_1) with the probability value of 0.0438 ($p < 0.05$). In a similar fashion, exports (DX_2) significantly affect economic growth (thus supporting H_2). However, the $\overline{R}^2$ of the random-effect model is only 6.54%. It is worth noting that the $\overline{R}^2$ value is generally lower in panel models (PeiZhi & Ramzan, 2020).

The findings show that, in the ASEAN+3 countries, the FDI-led growth hypothesis is approved. Commitments to reduce the costs of doing business would arguably stimulate FDIs. In this respect, the ASEAN+3 countries had been improving their Ease of Doing Business (EoDB). The region was incorporated into the increasing regional production networks in East Asia by the growth of FDIs in ASEAN (Chen & Intal, 2017). According to A. Miankhel, S. Thangavelu and K. Kalirajan (2009), policymakers should remove the trade, fiscal, and financial barriers restricting exports and FDIs. Moreover, S. Adams (2009) revealed spikes in capital (FDIs) globalization in the last two decades. FDIs have been the most stable and the most important part of capital flows, indicating that they have been an effective alternative in the financial cycle in the developing countries. FDI inflows would enhance the growth of host countries by increasing their capital stocks, generating employment opportunities and allowing a transfer of technology (De Mello, 1997; Borensztein, De Gregorio & Lee, 1998). Several studies indicated that the effect of FDIs on economic growth depended on country-specific factors, such as the per capita income level of the host country, the human capital base, the degree of economic openness and the level of the development of the financial market (Blomstrom, Lipsey & Zejan, 1992; Balasubramanyam, Salisu & Sapsford, 1996; Borensztein, De Gregorio & Lee, 1998). In terms of the financial market, the ASEAN+3 Finance Ministers endorsed the creation of the ASEAN+3 Bond Market Forum at the 13th ASEAN+3 Finance Ministers' Meeting in Tashkent, Uzbekistan on May 2nd, 2010. It was a popular forum for promoting the standardization of business practices and the harmonization of cross-border bond transaction regulations in the country (Asian Development Bank, 2012). However, X. V. Vo (2009) stated that, due to inactive trading, many ASEAN+3 government bond

Table 5 Summary of Models

Variable	OLS		FEM		REM	
	β	*p*	B	*p*	β	*p*
C	-0.020949	0.9158	-0.027416	0.8945	-0.020949	0.9192
DX_1*	6.14E-05	0.0359	6.66E-05	0.0359**	6.14E-05	0.0438**
DX_2*	1.00E-05	0.0155	1.08E-05	0.0138**	1.00E-05	0.0201**
$\overline{R}_2$	0.065403		-0.013970		0.065403	
Hausman-Test					4.678010	0.0964
Chow-Test			0.171548	0.9992		

Note: *DX_1 and DX_2 are the FDIs and the exports at the first difference degree of integration. ** $p < 0.05$

Source: Authors

markets were still in the early stages of development with low liquidity, whereas, on the other hand, Asia's solid fiscal balances had not led to the growth of government bond markets.

Moreover, the export-led theory of growth is also empirically accepted in this study. As these countries had achieved remarkable economic growth led by exports, the economies of the ASEAN+3 countries were becoming more and more interesting. It could be understood that the theory of international trade and development implies that exports are a significant source of economic growth. The expansion of exports would lead to a better allocation of resources, the creation of the economies of scale and output through technological growth, the formation of capital and the generation of jobs (Shirazi & Manap, 2005). The parts and components that were also exported to the rest of East Asia and the world as intermediate goods led to the expansion of intra-ASEAN trade (Chen & Intal, 2017). However, the traditional services dominated the export of the services of ASEAN countries. The exports of these services reached the two-thirds of the total service exports, whereas the proportion of the export of modern services was relatively small (Sermcheep, 2019). Furthermore, there were changes in the comparative advantage patterns in the ASEAN+3 countries. According to V. V. Gavrilov (2011), the international capital acquisitions and security of the export markets remained crucial to the growth of the ASEAN countries. In this respect, the countries that were the most significant for the ASEAN countries were the three countries in East Asia, because they had economic and financial resources to provide the aid they needed.

CONCLUSION

This paper investigates the impact of FDIs and exports on economic growth for the ASEAN+3 countries, which includee Malaysia, Myanmar, the Philippines, Singapore, Thailand, Vietnam, Brunei Darussalam, Cambodia, Indonesia, the People's Democratic Republic of Lao, the People's Republic of China, Japan, and Korea. The results of this study demonstrate that the ASEAN+3 countries demonstrate the FDI-led and export-led growth hypotheses (thus supporting the hypotheses 1 and 2), which means that FDIs and exports are crucial in boosting the economic growth of the ASEAN+3 countries.

In attracting FDIs, ASEAN has been considered as successful. In recent years, it has been competing with China as the largest FDI investment destination in the developing world. It is important to understand that FDIs are an integral part of the global economy and that they will be built further in parallel with the social and economic development process of the ASEAN+3 countries. The policymakers in the ASEAN+3 countries need to establish the policies that create conducive environments for FDIs by improving the Ease of Doing Business (EoDB). A favorable environment will be created so as to attract FDIs, especially from the main companies in the ASEAN+3 countries. Due to the lack of domestic workforce with a technological potential, however, there are obstacles to attracting FDIs. Therefore, an extended period of time is needed to improve human capital. In order to enable the private sector and foreign investors to spend more funds on the emerging industries, labor policies should be implemented.

Furthermore, Intra-ASEAN merchandise trade had robustly grown, which was followed by equally robust growth in trade with non-ASEAN trading partners, especially so with China, Japan and the Republic of Korea (Chen & Intal, 2017). The ASEAN+3 countries boost the ability of small-scale enterprises to have greater opportunities to legally manufacture unlimited amounts for export. Therefore, the ASEAN+3 countries need to launch the policies that remove the trade, fiscal and financial barriers that restrict export. These policies also have to develop human capital and eliminate inefficiencies and develop the other activities that promote economic growth. Additionally, these policies should balance between enhancing the export of modern services as the new growth engine, on the one hand, and maintaining a contribution to the travel and transportation sectors as the main sectors of the Association of Southeast Asian Nations.

This study has several limitations that future studies should overcome. First, this study only focuses on the relationships between the three macroeconomic variables (economic growth, FDIs, and exports). It is suggested that future research studies should use more variables in the analysis, such as imports, transfers of new technologies and labor force from bilateral or multilateral cooperation (ASEAN+6, BRICS, EMU, and OECD). Second, this study only analyzes the macroeconomic data of the thirteen countries during the period from 2008 to 2018. Therefore, future studies are expected to include longer observation periods covering the major global economic events, such as the 1997 Asian crisis and COVID-19. Third, this paper only employs the standard panel data model. It is suggested that, as such, future research studies should expand the model by using dynamic panel data, panel granger causality and others.

REFERENCES

Acaravci, A., & Ozturk, I. (2012). Foreign direct investment, export, and economic growth: Empirical evidence from new EU countries. *Journal for Economic Forecasting*, *15*(2), 52-67.

Abbes, S. M., Mostéfa, B., Seghir, G., & Zakarya, G. Y. (2015). Causal interactions between FDI and economic growth: Evidence from dynamic panel co-integration. *Procedia Economics and Finance*, *23*, 276-290. doi.org/10.1016/s2212-5671(15)00541-9

Adams, S. (2009). Foreign direct investment, domestic investment, and economic growth in Sub-Saharan Africa. *Journal of Policy Modeling*, *31*(6), 939-949. doi.org/10.1016/j.jpolmod.2009.03.003

Aitken, B. J., & Harrison, A. (1997). Do domestic firms benefit from direct foreign investment? Evidence from Venezuela. *American Economic Review*, *89*(3), 605-618. doi.org/10.1257/aer.89.3.605

ASEAN Secretariat. (2018). Overview of ASEAN Plus Three Cooperation. *ASEAN Secretariat Information Paper*. Retrieved October 15, 2020, from https://asean.org/wp-content/uploads/2016/01/Overview-of-APT-Cooperation-Jul-2018.pdf

ASEAN Secretariat. (2020). Overview of ASEAN Plus Three Cooperation. *ASEAN Secretariat Information Paper*. Retrieved October 15, 2020, from https://asean.org/storage/2016/01/APT-Overview-Paper-24-Apr-2020.pdf

Asian Development Bank. (2012). *ASEAN+3 Bond Market Guide*. Mandaluyong: Asian Development Bank. Retrieved September 17, 2020, https://www.adb.org/sites/default/files/publication/29702/asean3-bond-market-guide.pdf

Balassa, B. (1978). Exports and economic growth. *Journal of Economic Development*, *5*(2), 181-189. doi.org/10.1016/0304-3878(78)90006-8

Balasubramanyam, V. N., Salisu, M., & Sapsford, D. (1996). Foreign direct investment and growth in EP and is countries. *Economic Journal*, *106*(434), 92-105. doi.org/10.2307/2234933

Blomstrom, M., Lipsey, R. E., & Zejan, M. (1992). What explains developing country growth? *NBER Working Papers* 4132. Cambridge: National Bureau of Economic Research. 1-36. doi:10.3386/w4132

Borensztein, E., De Gregorio, J., & Lee, J-W. (1998). How does foreign direct investment affect economic growth? *Journal of International Economics*, *45*(1), 115-135. doi.org/10.1016/S0022-1996(97)00033-0

Brems, H. (1970). A growth model of international direct investment. *American Economic Review*, *60*(3), 320-331.

Chen, L., & Intal, P. S. (2017). ASEAN Foreign Trade, Investment, and Integration in Comparative Perspective. *ASEAN and Member States: Transformation and Integration* (pp. 13-33). Philippines: Economic Research Institute for ASEAN and East Asia.

De Mello, L. R. (1997). Foreign direct investment in developing countries and growth: A selective survey. *The Journal of Development Studies*, *34*(1), 1-34. doi.org/10.1080/00220389708422501

Ericsson, N. R., Irons, J. S., & Tryon, R. W. (2001). Output and Inflation in the Long Run. *Journal of Applied Econometrics*, *16*(3), 241-253. doi:10.1002/jae.614

Gavrilov, V. V. (2011). Framework of the ASEAN plus three mechanisms operating in the sphere of economic cooperation. *CALE Discussion Paper No. 7*, 1-60.

Giles, J. A., & Williams, C. L. (2000). Export-led growth: A survey of the empirical literature and some non-causality results. Part 1. *The Journal of International Trade & Economic Development*, *9*(3), 261-337. doi.org/10.1080/09638190050086177

Gokmenoglu, K. K., Sehnaz, Z., & Taspinar, N. (2015). The export-led growth: A case study of Costa Rica. *Procedia Economics and Finance*, *25*(1), 471-477. doi.org/10.1016/S2212-5671(15)00759-5

Heller, P. S., & Porter, R. C. (1978). Exports and Growth: an empirical re-investigation. *Joumal of Development Economic*, *5*(2), 191-193. doi.org/10.1016/0304-3878(78)90007-X

Hill, R. C., Griffiths, W. E., & Lim, G. C. (2018). *Principles of Econometrics*. New Jersey, NJ: John Wiley & Sons, Inc.

Hsiao, F. S. T., & Hsiao, M. -C. W. (2006). FDI, exports, and GDP in East and Southeast Asia -Panel data *versus* time-series causality analyses. *Journal of Asian Economics*, *17*(6), 1082-1106. doi.org/10.1016/j.asieco.2006.09.011

Hussain, M., & Haque, M. (2016). Foreign direct investment, trade, and economic growth: An empirical analysis of Bangladesh. *Economies*, *4*(2), 1-14. doi.org/10.3390/economies4020007

Jamal, A., & Bhat, M. A. (2019). Examining the relationship between economic growth, FDI, and trade: VAR and causality analysis. *Journal of Indian Association of Social Science Institutions*, *38*(1), 25-39.

Kalirajan, K., Miankhel, A., & Thangavelu, S. (2009). Foreign direct investment, exports, and economic growth in selected emerging countries: Multivariate VAR analysis. *MPRA Paper No. 22763*, University Library of Munich, Germany, 1-23. doi:10.2139/ssrn.1526387

Law, S. H. (2018). *Applied Panel Data Analysis: Short Panels*. Serdangm, Malaysia: Universiti Putra Malaysia Press.

Lim, S. Y., & Ho, C. M. (2013). Nonlinearity in ASEAN-5 export-led growth model: Empirical evidence from nonparametric approach. *Economic Modelling*, *32*(C), 136-145. doi:10.1016/j.econmod.2013.01.044

Liu, X., Wang, C., & Wei, Y. (2001). Causal links between foreign direct investment and trade in China. *China Economic Review*, *12*(2-3), 190-202. doi.org/10.1016/s1043-951x(01)00050-5

Mahmoodi, M., & Mahmoodi, E. (2016). Foreign direct investment, exports, and economic growth: Evidence from two panels of developing countries. *Economic Research-Ekonomska Istraživanja*, *29*(1), 938-949. doi.org/10.1080/1331677x.2016.1164922

McCombie, J., & Thirlwall, A. P. (1994). *Economic Growth and the Balance-of-Payments Constraint*. London, UK: The Macmillan Press.

Moudatsou, A., & Kyrkills, D. (2011). FDI and economic growth: Causality for the EU and ASEAN. *Journal of Economic Integration*, *26*(3), 554-557.

Nair-Reichert, U., & Weinhold, D. (2001). Causality tests for cross-country panels: a new look at FDI and economic growth in developing countries. *Oxford Bulletin of Economics and Statistics*, *63*(2), 153-171. doi.org/10.1111/1468-0084.00214

PeiZhi, W., & Ramzan, M. (2020). Do corporate governance structure and capital structure matter for the performance of the firms? An empirical testing with the contemplation of outliers. *PLoS One*, *15*(2), 1-25. doi:10.1371/journal.pone.0229157

Petchko, K. (2018). Theory and theoretical frameworks. *How to Write About Economics and Public Policy*, Chapter 10, 181-206. doi:10.1371/journal.pone.0229157

Priyankara, E. (2018). Services exports and economic growth in Sri Lanka: Does the export-led growth hypothesis hold for services exports? *Journal of Service Science and Management*, *11*(4), 479-495. doi:10.4236/jssm.2018.114033

Ramos, F. F. R. (2001). Exports, imports, and economic growth in Portugal: Evidence from causality and cointegration analysis. *Economic Modelling*, *18*(4), 613-623. doi:10.1016/s0264-9993(00)00055-9

Richards, D. G. (2010). Exports as a determinant of long-run growth in Paraguay, 1966-1996. *The Journal of Development Studies*, *38*(1), 128-146. doi.org/10.1080/00220380412331322211

Sermcheep, S. (2019). Services export and economic growth in ASEAN countries. *Journal of Asian Economic Integration*, *1*(2), 1-20. doi.org/10.1177/2631684619883443

Shawa, M. J., & Shen, Y. (2013). Causality relationship between foreign direct investment, GDP growth, and export for Tanzania. *International Journal of Economics and Finance*, *5*(9), 13-19. doi:10.5539/ijef.v5n9p13

Shirazi, N. S., & Manap, T. A. B. (2005). Export-led growth hypothesis: further econometric evidence from South Asia. *Developing Economies*, *43*(4), 472-488. doi.org/10.1111/j.1746-1049.2005.tb00955.x

Sultanuzzaman, Md. R., Fan, H., Akash, M., Wang, B., & Shakij, Md. U. S. (2018). The role of FDI inflows and export on economic growth in Sri Lanka: An ARDL approach. *Cogent Economics & Finance*, *6*(1), 1-17. doi.org/10.1080/2332 2039.2018.1518116

Tang, C. F., Lai, Y. W., & Ozturk, I. (2015). How stable is the export-led growth hypothesis? Evidence from Asia's four little dragons. *Economic Modelling*, *44*(C), 229-235. doi:10.1016/j.econmod.2014.09.022

Vo, X. V. (2009). International financial integration in Asian bond markets. *Research in International Business and Finance*, *23*(1), 90-106. doi.org/10.1016/j.ribaf.2008.07.001

Widodo, T. (2009). Dynamic comparative advantages in the ASEAN+3. *Journal of Economic Integration*, *24*(3), 505-529.

Yalta, A. Y. (2013). Revisiting the FDI-led growth Hypothesis: The case of China. *Economic Modelling*, *31*(1), 335-343. doi:10.1016/j.econmod.2012.11.030

Yamada, H. (1998). A note on the causality between export and productivity: An empirical re-examination. *Economics Letters*, *61*(1), 111-114.

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