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ECONOMIC OPENNESS AND ECONOMIC GROWTH: A COINTEGRATION ANALYSIS FOR ASEAN-5 COUNTRIES

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Abstract:

The paper considers three channels of economic openness, namely FDI, imports, and exports, and examines their short-run and long-run effects on the economic growth in the five founding member countries of the Association of Southeast Asian Nations (ASEAN) over the period from 1980 to 2014. Besides the impact on the economic growth, the authors analyze all possible causal interrelationships to discern patterns and directions of causality among FDI, imports, exports, and GDP. The quantitative analysis, which is based on the vector error correction co-integration framework, is conducted separately for each country in order to assess their individual experiences and allow for a comparative view. Although the precise details differ across countries, the findings indicate that there is a long-run equilibrium relationship between economic openness and GDP in all ASEAN-5 economies. FDI, imports and exports have a significantly positive short-run and long-run impact on the economic growth. Our results also show that export-led growth is the most important economic growth factor in most countries, followed by FDI-led growth. Another crucial finding is the bi-directional causality between exports and FDI across the ASEAN-5 countries. This indicates the presence of direct and indirect effects on GDP and a self-reinforcing process of causality between those two variables, which strengthens their impact on the economic growth.

Key words:
import,
export,
economic growth.

INTRODUCTION

From the theoretical as well as empirical point of view, it has been long suggested that international economic integration promotes efficient reallocation of resources leading to the increased economic growth and sustainable development. Economic openness in developing countries can provide numerous opportunities for attracting foreign capital and undergoing structural transformations, which is vital for economic modernization and sustainable growth.

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Notably, the member countries of the Association of Southeast Asian Nations (ASEAN) are regarded as particularly open economies, embracing international integration as a national development strategy. ASEAN, which has undergone several steps of regional integration since 1967, is indeed a very dynamic region with regard to intra-regional and global economic integration. More specifically, the five founding ASEAN members have been subject to integration over a long period. International trade as well as foreign direct investments (FDI) play a significant role in the national economies of those countries.

Consequently, it may be argued that the experiences of the ASEAN countries offer empirical evidence and insights into the effects of various channels of economic openness and growth as well as on all relevant interrelationships. As FDI, imports, and exports represent the most important dimensions of international economic integration, information on those aspects of openness is particularly important. Besides country and regional-specific information, the ASEAN case might also provide relevant lessons and policy implications for other developing and emerging economies opening up and following a similar path. In an increasingly globalized world economy, knowledge on the long-run links and effects among different dimensions of economic openness and economic growth is valuable for economic policy purposes.

Thus, our paper primarily aims to trace the long-run trends in FDI, international trade, and economic growth in five founding ASEAN member countries, for which a comprehensive dataset can be constructed over the period 1980-2014. Secondly and most importantly, it aims to identify, analyse, and assess relevant long-run and short-run causal economic relationships among FDI, imports, exports, and GDP. Our quantitative analysis pays particular attention to the economic growth effects of each of the aforementioned channels of economic openness.

The rest of the paper is structured as follows. The next section provides an overview of relevant theoretical and empirical literature. The third section discusses the data and examines the long-run trends. The fourth section presents the methodology and modelling framework of the quantitative analysis. The fifth section reports and discusses the empirical results. The final section summarizes the key findings and provides concluding remarks.

THEORETICAL AND EMPIRICAL BACKGROUND

Long-standing and extensive theoretical literature on international trade advocates that trade contributes positively to the long-term growth prospects of a country (*e.g.* Van den Berg & Lewer, 2015). Integration and cross-border trade promote economic efficiency through resource reallocation, increased productivity, production specialization, scale economies and increased market opportunities.

There is also accumulated empirical evidence suggesting that international trade has led to the increased efficiency, productivity, technology, and growth in both developed and developing countries (The World Bank, 2015; Feenstra, 2015; UNCTAD, 2015; Markusen *et al*., 1995).

Similarly, the literature considers inward FDI to be particularly important for developing countries as it provides productive capital necessary for performing economic activities (*e.g.* UNCTAD, 2016). Thus, it adds to the domestic capital stock and enhances the production capabilities of the national economy in the long-run.

Moreover, it is suggested that FDI may lead to the transfer of technology, economic transformation and technological progress. Other possible positive spillovers include the creation of linkages between multinational enterprises (MNEs) and local firms, resulting in increased domestic entrepreneurship.

Lastly, besides the above channels, FDI can also contribute to economic growth through increased exports, if MNEs locate in the host-country for export activity.

There are many empirical studies investigating the long-run relationships among economic openness, trade and growth. Generally, those studies, which are usually based on a time-series framework and co-integration analysis, find evidence of a significant growth effect of international integration related factors.

For instance, Gries and Redlin (2012), using a large sample of 158 countries over the period 1970-2009, conclude that there is a significant positive causal long-term effect running from trade openness to economic growth and vice versa. Using various trade liberalization indices for 120 countries over the period 1970-1999, Yanikkaya (2003) finds that trade has a positive impact on real GDP per capita.

For Southeast Asian economies, where trade liberalization has been on the rise for many decades, international trade has been a contributing factor of economic growth and development. Several studies have found empirical evidence of a long-run link between exports and GDP (Ridzuan *et al*., 2016; Tan & Tang, 2016; Hsiao & Hsiao, 2006; Ahmad & Harnhirun, 1996). However, depending on the given countries and time period concerned, the evidence sometimes gives clear support to the export-led growth hypothesis. In other instances, it is revealed that there is a more complex structure indicating GDP causing exports or the existence of a bi-directional causal relationship.

Besides trade openness, there are studies that also examine explicitly the long run causal relationship between FDI and growth. More specifically, the empirical evidence points out that in Southeast Asian countries FDI contributes significantly to GDP growth (Bhatt, 2014; Moudatsou & Kyrkilis, 2011; Choong & Liew, 2009). Additionally, studies in which trade-related measures and FDI are included simultaneously to investigate long-run growth effects, reveal the presence of intricate interrelationships (Sothan, 2016; Tan & Tang, 2016; Bhatt, 2014). It is found that different patterns and causality relations can arise.

For instance, FDI might cause trade (exports and imports), which causes economic growth without a direct growth effect of FDI, or FDI and exports both having only direct effects on growth, or other interdependencies. The literature shows that as international integration issues and growth can be interrelated in various ways, the establishment of relevant patterns and long-run relationships is essentially country specific. This also represents additional motivation for our empirical modelling approach on the underlying interdependent relationships and causalities to be based on an individual country case investigation for all ASEAN member states in our dataset.

DATA, VARIABLES AND LONG-RUN TRENDS

For each of the 5 ASEAN countries (Indonesia, Malaysia, the Philippines, Singapore, and Thailand), the data cover the period 1980-2014. There are four key variables expressed in US dollars:

- Real GDP (GDP)
- Real FDI stock (FDI)
- Real exports (EXP)
- Real imports (IMP)

All variables are expressed in real terms, by deflating the nominal values using the country's GDP deflator. The base year is 2005. The data sources are as follows: GDP from UN national accounts database; FDI stock from UN FDI database; exports, imports, and GDP deflators from the IMF international financial statistics database.

Prior to our main analysis, we proceed with a brief descriptive analysis and discussion on the long-term trends of the observed variables for each ASEAN-5 country. As evident from Figure 1, there is clearly a strong upward trend in real GDP, real exports, real imports, and real FDI over the period 1980-2014 in all of the ASEAN member states in our dataset. Macroeconomic variables related to economic openness increase along with GDP growth.

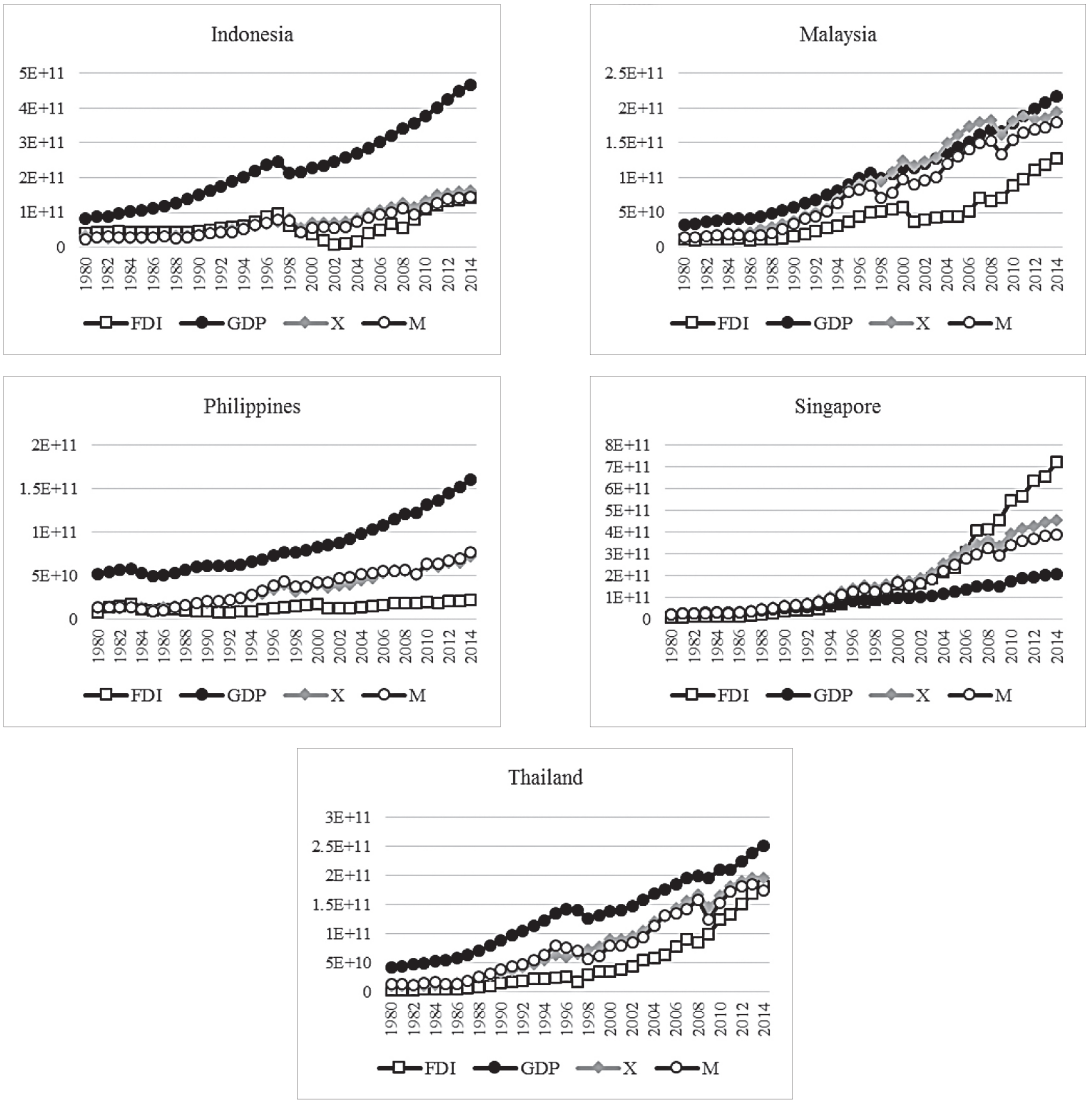

Figure 1. Long-run trends, 1980-2014

In terms of value, real exports and real imports are the most important international integration related measures, followed by real FDI. The exception is Singapore where foreign direct investment has become more important and has surpassed exports and imports in the last nine years of the observed period. In summary, we can see that economic openness is important and is rapidly increasing over time in ASEAN-5 countries.

METHODOLOGY AND MODELLING FRAMEWORK

As shown in the descriptive analysis, there are significant long-term trends in the three international openness related measures as well as in economic growth. Most importantly, though, based on the theoretical grounds, certain long-run relationships among those variables should exist. In general, as already discussed and suggested by the relevant literature, exports, imports, and FDI, play an important role in encouraging and contributing to the economic growth. However, the importance, strength, and direction of the causal relationships among those variables may vary significantly in different economies.

Essentially, the interrelationships are dependent on the underlying structural relationships and dynamics of a given economy. For instance,

in some countries exports might be particularly influential with a clear unidirectional effect on GDP, suggesting an export-led growth hypothesis. Similarly, there might be a strong FDI-led growth scenario. In other cases, more intricate interrelationships might be at work, such as, direct and indirect effects among exports, imports, and FDI on growth, or bi-directional effects between openness and GDP growth. Thus, the underlying long-run relationships have to be discerned and established through the appropriate empirical time-series modelling.

The paper applies a three-step methodological approach within a vector error correction co-integration framework to analyse the causal relationships and effects among real GDP, real FDI, real imports and real exports in the observed ASEAN countries. This analytical framework is particularly appropriate when investigating the issue of long-run causal equilibrium relationship(s) among several time-series variables. It allows the efficient estimation of long-run and short-run effects. It also takes explicitly into account and analyses the short-run adjustments to the empirically established long-run equilibrium relationship that exists among the covariates.

First, we examine the statistical stationary properties of the data set by applying the Augmented Dickey Fuller (Dickey & Fuller, 1981), ADF, and the Phillips and Perron (1988), PP, unit root tests. It has to be noted that a non-stationary time series data set produces spurious results. Therefore, stationarity is an important issue. If the data are not stationary, we take the first differences and test again for stationary properties. In case the first-differenced data are stationary, we can proceed with our co-integration and Granger causality analyses.

In the second step, we test for co-integration and in case the variables are found to be co-integrated, estimate the long-run equilibrium relationship. Notably, if the time series covariates under study are not co-integrated, an equilibrium relationship cannot be assumed and Granger causality tests are spurious (Granger, 1988). When two time series are I(1), integrated of order one [stationary first-differenced series], and there exists a linear combination between those series that is I(0) [stationary series], then those two time series variables are co-integrated (Engle & Granger, 1987).

In the third stage, we analyse the short-run (Granger) causalities among all of the four variables. The co-integrating equilibrium relationship among GDP, FDI, IMP, and EXP, as well as the Granger causality tests, are based on the appropriate vector error correction model (VECM) specified and estimated for each of the five ASEAN countries.

Our VECM for a single country can be represented as follows:

$$\Delta GDP_t = \delta_{10} + \sum_{i=1}^{q11} \delta_{11i}\,\Delta GDP_{t-i} + \sum_{j=1}^{q12} \delta_{12j}\,\Delta FDI_{i-j} + \sum_{k=1}^{q13} \delta_{13k}\,\Delta IMP_{t-k} + \sum_{l=1}^{q14} \delta_{14l}\,\Delta EXP_{t-l} + \delta_{15}\varepsilon_{t-1} + u_{1t} \qquad (1a)$$

$$\Delta FDI_t = \delta_{20} + \sum_{i=1}^{q21} \delta_{21i}\,\Delta GDP_{t-i} + \sum_{j=1}^{q22} \delta_{22j}\,\Delta FDI_{t-j} + \sum_{k=1}^{q23} \delta_{23k}\,\Delta IMP_{t-k} + \sum_{l=1}^{q24} \delta_{24l}\,\Delta EXP_{t-l} + \delta_{25}\varepsilon_{t-1} + u_{2t} \qquad (1b)$$

$$\Delta IMP_t = \delta_{30} + \sum_{i=1}^{q31} \delta_{31i}\,\Delta GDP_{t-i} + \sum_{j=1}^{q32} \delta_{32j}\,\Delta FDI_{t-j} + \sum_{k=1}^{q33} \delta_{33k}\,\Delta IMP_{t-k} + \sum_{l=1}^{q34} \delta_{34l}\,\Delta EXP_{t-l} + \delta_{35}\varepsilon_{t-1} + u_{3t} \qquad (1c)$$

$$\Delta EXP_t = \delta_{40} + \sum_{i=1}^{q41} \delta_{41i}\,\Delta GDP_{t-i} + \sum_{j=1}^{q42} \delta_{42j}\,\Delta FDI_{t-j} + \sum_{k=1}^{q43} \delta_{43k}\,\Delta IMP_{t-k} + \sum_{l=1}^{q44} \delta_{44l}\,\Delta EXP_{t-l} + \delta_{45}\varepsilon_{t-1} + u_{4t} \qquad (1d)$$

where $t=1,2,\ldots T$ refers to the time periods (annual observations); Δ denotes the first difference operator; q is the number of lags; the δ's are the parameters to be estimated; ε_{t-1} is the error correction term, indicating the long-run causal effect (of the right-hand side variables on the left-hand side variable) and the speed of adjustment towards the long-run equilibrium, which is derived from the co-integration relationship; u is the serially uncorrected error terms; i, j, k and l denote the appropriate lag lengths for the VECM, based on Akaike's information criterion.

In the real GDP equation (1a), the Granger short-run causalities from real FDI, real imports, and real exports to real GDP are tested. The relevant three null hypotheses in (1a) can be expressed compactly as:

$$H_0: \delta_{12j} = 0 \forall_j, H_0: \delta_{13k} = 0 \forall_k, H_0: \delta_{14l} = 0 \forall_l$$

(All short-run parameters are equal to zero)

Each of the above represents Wald tests of the null joint hypothesis that the estimated short-run coefficients associated with either FDI, IMP, or EXP are (not statistically different from) zero, and hence there is no Granger short-run causality between those variables and GDP.

Similarly, in the real FDI equation (1b), the tests for short-run causality running from GDP, IMP, and EXP to FDI are based on the following joint hypotheses:

$$H_0: \delta_{21i} = 0 \forall_i, H_0: \delta_{23k} = 0 \forall_k, H_0: \delta_{24l} = 0 \forall_l$$

If a joint null hypothesis cannot be rejected, it is concluded that the variable associated with the given Wald test (here GDP, IMP, or EXP) does not Granger cause FDI.

In the real imports equation (1c), Granger short-run causality tests are based on the following hypotheses:

$$H_0: \delta_{31i} = 0 \forall_i, H_0: \delta_{32j} = 0 \forall_j, H_0: \delta_{34l} = 0 \forall_l$$

Finally, with respect to real exports, equation (1d), the relevant tests for Granger causality are represented as follows:

$$H_0: \delta_{41i} = 0 \forall_i, H_0: \delta_{42j} = 0 \forall_j, H_0: \delta_{43k} = 0 \forall_k$$

EMPIRICAL RESULTS

Table 1 reports the results of the unit root tests for four variables in five observed ASEAN countries. The ADF and PP tests indicate that the four series are I(1) processes at the 5% significance level except for the data about FDI in the Philippines but in the PP test, the data is I(1) at 1% level. Thus, we accept the results of the PP test for FDI variable in the Philippines. Therefore, we may reasonably conclude that all variables appear to be I(1) series in all of the five countries.

Next, using the Johansen's maximum likelihood approach, a co-integration analysis is conducted to investigate whether there is a long-run relationship among real GDP, real FDI, real exports, and real imports. Table 2 presents the results of the co-integration analysis. We find evidence of co-integration in all five countries, as revealed by both the maximum eigenvalue and trace statistics at the 5% and 1% statistical significance levels. These findings support the view that GDP, FDI, IMP, and EXP all move together in the long run in each of the five ASEAN countries observed herein.

Table 3 reports the results of the co-integrating regression equation, with GDP as the dependent variable. These findings indicate the underlying equilibrium relationship and long-run effects of FDI, EXP, and IMP on GDP.

It is evident that in all countries the three variables, which are associated with different channels of economic openness, have a statistically significant long-run impact on GDP in all countries. Since all variables are measured in the same units (namely US dollars), the estimated regression coefficients reveal the magnitude of the effect, as well as relative importance of each variable. Exports, followed by inward FDI, are found to exert the

Country	Variable	ADF	1st	PP	1st
		Level	Difference	Level	Difference
Indonesia	GDP	-0.70	-4.02**	-0.20	-4.04**
	FDI	-1.35	-3.95**	-1.11	-3.94**
	EXP	-2.05	-7.20***	-1.94	-7.49***
	IMP	-1.65	-5.61***	-1.65	-5.66***
Malaysia	GDP	-1.11	-5.92***	-1.00	-5.96***
	FDI	-2.29	-5.49***	-0.57	-5.49***
	EXP	-2.91	-6.06***	-2.74	-7.95***
	IMP	-2.61	-5.60***	-2.61	-5.61***
The Philippines	GDP	2.49	-4.98***	2.77	-6.41***
	FDI	-3.43*	-6.33***	-2.09	-6.53***
	EXP	-2.81	-7.96***	-2.56	-11.02***
	IMP	-2.89	-6.63***	-2.63	-6.76***
Singapore	GDP	-0.75	-4.2**	-0.47	-6.59***
	FDI	0.88	-6.99***	1.09	-6.97***
	EXP	-1.70	-6.01**	-1.67	-6.01***
	IMP	-1.90	-7.33***	-1.84	-7.33***
Thailand	GDP	-2.09	-4.45***	-1.77	-4.45***
	FDI	3.56	-5.22***	2.78	-5.86***
	EXP	-2.28	-4.64***	-2.35	-11.45***
	IMP	-2.65	-3.87**	-2.65	-7.62***

Note: ***, **, and * indicate that the null of the unit root in the ADF and PP tests is rejected at the 1%, 5%, and 10% levels, respectively. Lag lengths are chosen using Akaike's information criterion.

Table 1. Results for unit roots tests

Country	Null hypothesis	Test statistic	
		Max eigenvalue	Trace
Indonesia	r=0	22.494**	35.701***
	r≤1	0.032	0.009
Malaysia	r=0	23.509**	15.616**
	r≤1	0.023	0.048
The Philippines	r=0	16.12	17.873**
	r≤1	0.025**	0.022
	r≤2		
Singapore	r=0	7.711***	7.711***
	r≤1	0.006	0.006
	r≤2		
	r≤3		
Thailand	r=0	5.4155**	5.4155**
	r≤1	0.02	0.02
	r≤2		
	r≤3		

Note: *** and ** denote statistical significance at the 1% and 5% levels, respectively.

Table 2. Results for co-integration tests

strongest effect in several countries. More specifically, in the Philippines, Singapore, and Thailand, exports exhibit the highest coefficient, and FDI the second highest in two of those countries. In Malaysia, FDI is associated with the highest impact on GDP followed by imports. These findings give support to the export-led and FDI-led growth hypothesis. Interestingly, imports are found to be the most important international integration related factor of economic growth in Indonesia.

Additionally, in this country exports show the second highest impact, whilst FDI has the smallest long-run effect on GDP.

Having established and examined the long-run equilibrium relationship, we turn to short-run effects and Granger causality tests among all considered variables, as shown in Table 4. First, it is found that FDI, imports, and exports significantly Granger cause GDP in the short-run [equation (1a)] in all ASEAN-5 members. An exception is

	Indonesia	Malaysia	Philippines	Singapore	Thailand
FDI	0.38956	0.45409	0.56420	0.29407	0.35320
	(4.3)***	(4.7)***	(7.9)***	(13.2)***	(3.4)***
IMP	0.54521	0.39567	0.33532	0.37584	0.28839
	(2.9)***	(4.0)***	(4.0)***	(7.5)***	(2.2)**
EXP	0.46610	0.30735	1.75633	0.89648	0.39937
	(2.3)**	(3.1)***	(17.6)***	(18.4)***	(2.7)***
constant	-4.8E+10	2.2E+10	2.7E+10	2.5E+10	5.7E+10
	(-1.9)*	(8.8)***	(37.0)***	(43.9)***	(8.0)***

Note: GDP is the dependent variable in the co-integrating regression equation in each country. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 3. Long-run equilibrium relationship between GDP, FDI, Imports, and Exports

		ΔGDP	*ΔFDI*	*ΔIMP*	*ΔEXP*	*ECT*
			(short-run Granger causality)			(long-run)
Indonesia	ΔGDP (1a)	-	4.52**	2.75*	2.29	9.06***
	ΔFDI (1b)	0.83	-	1.79	2.80*	2.89*
	ΔIMP (1c)	0.50	21.73***	-	6.46***	12.63***
	ΔEXP (1d)	0.57	17.48***	4.56**	-	4.35**
Malaysia	ΔGDP (1a)	-	15.84***	8.08**	7.85**	8.39***
	ΔFDI (1b)	14.86***	-	3.64	13.97***	15.94***
	ΔIMP (1c)	18.09***	19.98***	-	9.64**	4.85**
	ΔEXP (1d)	1.86	6.65**	6.78**	-	7.97***
The Philippines	ΔGDP (1a)	-	6.13**	4.27	6.70**	7.02***
	ΔFDI (1b)	6.91**	-	1.82	4.77*	4.98**
	ΔIMP (1c)	1.05	1.40	-	5.08*	3.30*
	ΔEXP (1d)	1.68	5.32*	4.95*	-	4.54**
Singapore	ΔGDP (1a)	-	24.99***	21.18***	16.36***	13.41***
	ΔFDI (1b)	1.36	-	10.34***	10.51***	11.05***
	ΔIMP (1c)	14.90***	7.61*	-	10.25***	5.90**
	ΔEXP (1d)	18.58***	16.30***	26.19***	-	5.62**
Thailand	ΔGDP (1a)	-	5.35*	6.80**	5.03*	12.68***
	ΔFDI (1b)	11.49***	-	10.05***	15.49***	3.86**
	ΔIMP (1c)	1.99	14.20***	-	5.75*	4.12**
	ΔEXP (1d)	0.74	12.17***	4.89*	-	3.11*

Notes: The figures refer to Wald tests for the short-run causality effect of each variable on other variables. For each country, those tests are chi-square test statistic values with the given number of degrees of freedom according to each country's estimated VECM. ECT denotes error correction term, and indicates the long-run causal effect (long-run equilibrium relationship) between the "explanatory" and the "dependent" variables in each equation. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 4. Results for Granger causality tests

Indonesia and the Philippines, where exports in the former and imports in the latter do not have a short-run impact. As the error correction term is highly statistically significant, it is confirmed that those variables cause GDP in the long-run across all countries in our sample.

By examining all causality directions among the variables (across all equations of the system, VECM), certain interesting patterns of short-run causality interrelationships can be observed.

FDI is Granger caused by GDP (in Malaysia, the Philippines, and Thailand), by imports (in Singapore and Thailand), and exports (in all ASEAN-5). With respect to imports, there is short-run causality from GDP (in Malaysia and Singapore), from FDI (in Indonesia, Malaysia, Singapore and Thailand), and from exports (in all ASEAN-5). Exports are Granger caused by GDP (in Singapore), by imports (in all ASEAN-5), and by FDI (in all ASEAN-5). Thus, besides the impact of the economic openness variables to GDP, there is the evidence that in certain countries GDP causes some of those variables. However, this result is rather case specific and less generalizable. A much more universal pattern across the ASEAN-5 is the bi-directional causality between exports and imports and between FDI and exports.

Coupled with the finding that FDI and exports cause GDP in the long run and short-run, the bi-directional causality between FDI and exports implies that those two variables have a direct as well as indirect effect associated with their long-run impact on GDP. This is due to their close interrelationship, suggesting that FDI and exports cause growth directly and indirectly through their mutual impact which reinforces their effect on GDP.

CONCLUSIONS

By applying the vector error correction co-integration framework for five ASEAN countries over the period 1980-2014, this study observes the causal relationships among FDI, imports, exports and GDP. An underlying long-run equilibrium relationship among the three aspects of economic openness and growth is found in all of the observed countries. In general, FDI, imports and exports significantly affect and lead to the economic growth both in the short and the long-run.

However, our analysis indicates that there are some substantial differences across countries with respect to both the relative importance of the long-run effects on GDP and the patterns of short-run causalities. This finding justifies our modelling approach of conducting a co-integration analysis for each ASEAN country separately (instead of panel co-integration). This highlights that international integration affects different ASEAN countries to some extent through different channels of economic openness.

Though certain dissimilarities are present, the overall pattern still emerges. More specifically, both export-led growth and FDI-led growth are found to be the two most important growth factors across the ASEAN-5. Furthermore, there is a strong interrelationship between imports and exports, suggesting that a country's overall trade openness has a favourable impact on exports.

Most importantly, a bi-directional causality between FDI and exports is evidenced in all ASEAN-5 members. It points to the existence of direct and indirect effects on GDP associated with those variables. Economic growth is, thus, caused via a direct path by exports (or FDI) as well as through an indirect path, in which exports cause FDI (or FDI causes exports), which in turn cause GDP. Moreover, because of this circular (bi-directional) self-reinforcing causal process among FDI and exports, their growth impact is strengthened. Attracting inward FDI will lead to GDP growth and increased exporting activity, which shall result in GDP growth and increased inward FDI.

This finding might also suggest a scenario whereby the MNEs have to a large extent an export-platform FDI motive and are attracted to ASEAN countries due to their trade openness and export-oriented economies. In such a case, a country achieving an

increasing export activity becomes increasingly the target of export-oriented MNEs, which contributes to a country's further openness. Hence, on their own as well as through their bi-directional interrelationship and interaction, FDI and exports are found to play a particularly important role as factors of economic growth in ASEAN countries.

Overall, our findings imply that policies which enhance economic openness on all fronts, namely trade integration within and outside ASEAN, liberalization of foreign investments in all sectors of the economy, and international financial and capital market integration, would enhance significantly the long-run growth prospects of the ASEAN member economies.

Furthermore, extrapolating from our results, a number of policy measures, such as upgrading international trade related facilities, infrastructure, regulations, and procedures; improving domestic market environment and regulations relevant to foreign firms; facilitating the setting up and operations of export-oriented MNEs; implementing structural reforms to foster further economic restructuring and export specialization in comparative advantage sectors; and promoting increased export activity of domestic firms through various incentives and facilitation schemes (*e.g.* export credit, overseas markets information, international marketing services, export processing zones *etc.*), would be expected to contribute considerably to the increased FDI and exports, which in turn would lead to the long-run economic growth and development.

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OTVORENOST PRIVREDE I EKONOMSKI RAST: KOINTEGRACIONA ANALIZA NA PRIMERU PET DRŽAVA ČLANICA SAVEZA ZEMALJA JUGOISTOČNE AZIJE (ASEAN)

Rezime:

U radu se razmatraju tri kanala otvorenosti privrede, tačnije kanali stranih direktnih ulaganja, kanali uvoza i kanali izvoza, kao i njihov kratkoročni i dugoročni uticaj na ekonomski rast posmatranih pet zemalja članica Saveza država jugoistočne Azije (ASEAN) u periodu od 1980. do 2014. godine. Pored toga, ispituju se i uzročno-posledični odnosi između stranih direktnih investicija, uvoza, izvoza i BDP-a. Kvantitativna analiza koja se zasniva na vektorskom kointegracionom modelu korekcije greške vrši se posebno za svaku zemlju u cilju procene individualnih iskustava i davanja uporednog prikaza. Iako se detaljni podaci razlikuju za svaku zemlju, rezultati istraživanja ukazuju na postojanje dugoročnog uravnoteženog odnosa između otvorenosti privrede i BDP-a u svih pet zemalja članica Saveza država jugoistočne Azije. Strana direktna ulaganja, uvoz i izvoz imaju izrazito pozitivan kratkoročan i dugoročan uticaj na ekonomski razvoj. Rezultati pokazuju da je u većini zemalja rast vođen izvozom najvažniji činilac ekonomskog razvoja, kao i rast uslovljen stranim direktnim ulaganjima. U radu se ukazuje i na dvosmernu uzorčno-posledičnu vezu između izvoza i stranih direktnih ulaganja u posmatranim zemljama članicama Saveza država jugoistočne Azije (ASEAN). Rezultati ukazuju na postojanje direktnog i indirektnog uticaja na BDP i uzročne veze između ove dve promenljive, što se odražava na njihov uticaj na sveukupan ekonomski rast.

Ključne reči:
uvoz,
izvoz,
ekonomski rast.

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