jkp
Jurnal Keuangan dan Perbankan
UNIVERSITY OF MERDEKA MALANG

Tarsisius Renald Suganda (Indonesia),
Anneth Regina Hariyono (Indonesia)

The Integration of ASEAN-5 Capital Market after the Donald Trump Election

Abstract

Donald Trump's victory as the 45th President of the United States had negative responses on the ASEAN countries, especially on the stock market performance. This study conducted to investigate the existence of integration and contagion effect on the capital market of the ASEAN-5 countries after the election of Donald Trump. The five countries used in the research were Indonesia, Singapore, Malaysia, Thailand, and the Philippines. The five countries selected based on the highest FDI (foreign direct investment) flows among other ASEAN countries. Vector Error Correction models (VECM) and Granger Causality tests used as the analysis tools in the study. The daily closing stock price index of ASEAN-5 countries in 2016–2017 collected to be analyzed. The result of VECM model analysis and Granger causality test found the integration and contagion effect of the capital market in ASEAN-5 countries. The Granger Causality test showed that the Philippines had a contagion effect from other ASEAN-5 countries after the election of Donald Trump as the 45th President of the United States. In addition, it also found a two-way causal relationship between Singapore and Thailand, which showed that these two countries gave each other contagion effects.

**Tarsisius Renald Suganda,
Anneth Regina Hariyono**

Department of Accounting,
Faculty of Economics and
Business, Universitas Ma Chung
Villa Puncak Tidar N-01, Malang,
65151, Indonesia

✉Corresponding Author:
Tarsisius Renald Suganda:
Tel +62 281 637970
E-mail: renald.suganda@machung.ac.id

Abstrak

Kemenangan Donald Trump sebagai Presiden Amerika Serikat yang ke-45 memberikan dampak negatif terhadap negara-negara ASEAN khususnya pada kinerja pasar sahamnya. Penelitian ini dilakukan untuk menginvestigasi adanya integrasi dan efek penularan pada pasar modal negara ASEAN-5 pasca terpilihnya Donald Trump. Kelima negara yang digunakan dalam penelitian ini adalah Indonesia, Singapura, Malaysia, Thailand, dan Filipina. Kelima negara tersebut dipilih berdasarkan arus FDI (foreign direct investment) yang tertinggi di antara negara-negara ASEAN lainnya. Vector Error Correction Model (VECM) dan Granger Causality test digunakan sebagai alat analisis dalam penelitian ini. Data indeks harga saham penutupan harian negara ASEAN-5 pada tahun 2016–2017 dikumpulkan untuk dianalisis. Hasil dari analisis model VECM dan Granger Causality test menunjukkan adanya integrasi dan dampak penularan pasar modal pada negara-negara ASEAN-5. Hasil Granger Causality test menunjukkan bahwa Filipina mendapat efek penularan dari negara ASEAN-5 lainnya pasca terpilihnya Donald Trump sebagai Presiden Amerika Serikat ke-45. Selain hal tersebut, juga ditemukan adanya hubungan kausalitas dua arah antara negara Singapura dan Thailand yang menunjukkan bahwa kedua negara ini saling memberikan efek penularan.

Kata Kunci: ASEAN-5; Efek Penularan; Terpilihnya Donald Trump; dan Integrasi

In November 2016, Donald Trump won the 45th United States Presidential Election. Donald Trump's victory is reaping negative responses from investors in another country, especially countries in Asia. Many leading stock exchanges in Asia were under pressure on Donald Trump's win as reflected from a decrease of the Shanghai Composite Index (Tiongkok) of 0.62 percent; the Nikkei 225 (Japan) index of 4.21 percent; the Hang Seng (Hongkong) index of 3.52 percent; SSE Composite index of 1.32 percent; the Straits Time (Singapore) index of 1.43 percent; and the Jakarta Stock Exchange (Indonesia) index of 1.43 percent (www.finance.detik.com, 2017). Quoted from www.market.bisnis.com (2017) and www.bisnis.tempo.co (2017), the decline that occurred in the SET index (Thailand) of 1.14 percent; the KLSE index (Malaysia) of 0.93 percent; and the PSEI index (Philippines) of 2.36 percent.

The decline in the stock exchanges indicated a negative sentiment of related investor policies that will be implemented by Donald Trump when he was elected as President of the United States, such as illegal deportation immigrants, the termination of trade relations with Tiongkok, and trimming the tax ratio (www.pontianakpost.co.id, 2017). In a policy that will be implemented by Donald Trump, trade protectionism policies are expected to be applied in the United States. The implementation of trade protectionism policy aims to restore the heyday of the United States (Make America Great Again).

News about the implementation of trade protectionism policy raises concerns on the United States trading partner countries, especially Tiongkok. This is because Donald Trump's has a negative sentiment with Tiongkok related to trade policies and practice (www.news.detik.com, 2017). Regarding the sentiment, Donald Trump plans to set a high import duty (100 percent) on Tiongkok products (www.pontianakpost.co.id, 2017). This will have a negative impact on Tiongkok's exports and encourage weakness in exports in other Asian countries, such as in the ASEAN-5 countries. The weakening of export in ASEAN countries is due to economic integration between China and ASEAN countries. The economic integration occurs because of trade relations marked by the ACFTA (ASEAN-China Free Trade Area) (www.kemlu.go.id, 2017). The economic linkages (export and import) among ASEAN countries and large countries, such as the United States and China, coupled with political events such as Donald Trump's victory as 45th President of the United States along with policies made may affect the capital market integration in ASEAN countries.

Trade relations is one of the driving factors toward the occurrence of economic integration (Karim & Majid, 2009). According to Ayuningtyas (2009), economic integration is an economic area without frontier (the boundary between countries) which allows each population and resources from each member country can move freely as in the own country. ASEAN (Association of South East Asian Nations) is one of the region's economy without frontier; namely the Free Trade Area (FTA). The implementation of ASEAN FTA causes an increase in the flow of capital and trade between countries so that economic interdependence among countries in the ASEAN region is also increasing.

Economic interdependence between countries can be reflected in the capital market relations. Relationships between capital markets are dynamic or can change any time (Chandra, 2015). This change occurs because of the major economic event (Huyghebaert & Wang, 2010) such as an economic crisis or political crisis. According to Nainggolan (2010), the political crisis is an event that can cause political instability and social conditions of a country, such as government change, war, and terrorism. These events have useful information content for investors in making investment decisions. According to Suganda & Soetrisno (2016), any event such as announcements, corporate actions, or publications about a company or a country either inten-

tional or unintentional will have information content.

Starting from the Donald Trump's election as a political event in the United States, this research will be focused on the integration of capital markets in some of the ASEAN countries and on the effect of the contagion effect. Several studies have been conducted to prove the integration and contagion effect of capital markets in ASEAN-5 countries. Karim & Karim (2012) examines the integration of capital markets in ASEAN-5 countries, namely Indonesia, Malaysia, Singapore, Thailand, and the Philippines using data from January 1988 to December 2010 which is divided into three periods, namely period before 1997, period after 1997, and period after the Subprime Mortgage crisis in the United States. The results of the research found that the capital market in ASEAN-5 countries is increasingly integrated especially after the occurrence of the Subprime Mortgage crisis in the United States.

Robiyanto (2017) researched capital market integration in the ASEAN region, especially Indonesia, Singapore, Malaysia, Thailand, and Philippines using Orthogonal Generalized Autoregressive Conditional Heteroscedasticity (OGARCH) method. This study uses data from January 2001 to December 2016. The results of the study found that ASEAN capital markets have been integrated, but the integration is still not fully. In addition Robiyanto's (2017) also found that the capital markets of Indonesia, Malaysia, Thailand, and Singapore have been integrated, but the Philippine capital market tended to be segmented rather than integrated.

Suganda & Soetrisno (2016) examines the integration and contagion effect of the capital market in ASEAN-5 countries after the Subprime Mortgage crisis and Greece crisis using data from September 2008 to April 2013. Data sorted into two periods, i.e., periods after the Subprime Mortgage crisis and periods after Greece crisis. The results of the study found the integration and contagion effect of capital markets in ASEAN countries after the Subprime

Mortgage crisis and Greece crisis. This study provides empirical evidence that the AEC (ASEAN Economic Community) blueprint comprising a plan to liberalize financial services to accelerate the development and integration of capital markets in ASEAN countries has been proven.

The existence of capital market integration in countries in one region will contribute the economic growth and development of capital markets of each country in one region. The integration also raises the substantial risk of a contagion effect. The contagion effect will cause shocks, both global or local in a country can be transmitted to countries which integrated with the country (Dornbusch, Park, & Claessens, 2000). Based on these, this research tries to identify the integration and contagion effect of the capital market in ASEAN-5 countries after the election of Donald Trump as the 45th President of the United States.

HYPOTHESES DEVELOPMENT

Capital market integration is the relationship that occurs in the capital market of a country with the capital market of other countries due to the interdependence of the state both on the economic sector and the political sector. This integration of capital markets can be affected by events, such as the economic crisis and political crisis.

One of the political events that can affect capital market integration in some countries is the change of state or presidential leaders. A presidential replacement of a country can lead to the adoption of new trade policies that will impact global trade activity worldwide.

Krueger (1974) conducted research that focused on the effects of competition for import licenses under a quantitative restriction of imports. Empirical evidence suggests that the value of rents associated with import licenses can be relatively large, and it has been shown that the welfare cost of quantitative restrictions equals that of their tariff equivalents plus the value of the rents.

Roberts (1990) examine the effect of Senator Henry Jackson's (unexpected) death on various constituent interests of his successor on the Senate Armed Services Committee. The results of Roberts's research (1990) showed that the share prices of companies affiliated with his successor increased.

Fisman (2001) conducted a study that focused on the role of political connections in encouraging investment. According to Fisman (2001), political connectedness was the primary determinant of profitability and had led to distorted investment decisions. The results suggest that political connections may play an important role in many of the world's largest and most important economies. Companies that have a political connection tend to experience a higher stock return decline in the event of global political events, compared to companies with no political connections.

In essence, inter-state relations in the economic or political field will create an integration relationship. Integration relationship will cause a contagion effect. Based on the above statement then prepared the research hypothesis as follows:

H_1: there is a short-term capital market integration affecting capital markets in some countries in the ASEAN-5 region after the election of Donald Trump as President of the United States 45th

H_2: there is long-term capital market integration affecting capital markets in some countries in the ASEAN-5 region after the election of Donald Trump as President of the United States 45th

H_3: there is a short-term contagion effect affecting the capital market in some countries in the ASEAN region after the election of Donald Trump as President of the United States 45th

H_4: there is a long-term contagion effect affecting the capital markets in some countries in the ASEAN region after the election of Donald Trump as President of the United States 45th

METHODS

The data were obtained from the stock exchange website of each ASEAN-5 countries. The daily closing prices were collected from Jakarta Stock Exchange (JKSE), Kuala Lumpur Stock Exchange (KLSE), Stock Exchange of Thailand Index (SET), Philippine Stock Exchange Index (PSEI), and Singapore Times Index (STI). The data are analyzed in two different periods, which are September 2016 to March 31st, 2017, as the short-term period and September 2016 to September 1st, 2017, as the long-term period.

This study used the VECM to analyze capital market integration and Granger causality test to analyze contagion effect. The Vector Error Correction Model (VECM) model is a derivative method of the VAR model who first proposed by Sims (1980). In this research, the VECM model is used because the data do not pass in a stationary test and there is cointegration relation between research variables. This model is used for data that is not stationary because if the researcher regrets the non-stationary variables, it will cause spurious regression. If the data do not pass in stationary test and do not have cointegration relation between research variables, it can use the Autoregressive Distributed Lag (ARDL).

RESULTS

Descriptive statistics is a test that aims to provide an overview or description of a data. From the total of 217 observations for each ASEAN-5 share price index, the average value of JKSE is 5.498 with a maximum value of 5.915 and a minimum value of 5.027. The maximum value of JKSE is the highest price level in Indonesia's history during the study period (www.ekonomi.kompas.com).

KLSE index has a mean value of 1.709 as well as maximum and minimum values of 1.792 and 1.616. PSEI Index obtained a mean value of 7.492, as well

as a maximum and a minimum score of 8.046 and 1.614. The mean value of the SET index during the study period was 1.543, while the maximum and minimum SET values were 1.614 and 1.406. The mean value of the STI index is 3.067 with maximum value and a minimum value of 3.354 and 2.787. The maximum value of the ASEAN-5 share price indexes shows the highest price index of each country's stock price during the study period. The minimum value of the total number of observations made on the ASEAN-5 share price index shows the lowest price level during the study period. The result of descriptive statistics can be seen in Table 1.

The stationarity test was performed by Augmented Dickey-Fuller (ADF) test procedure. If the data is not stationary or contains the unit root, it is necessary to do integration degree test. Integration degree test is useful to look at the degree or differ-

entiation order in which the data will be stationary. The results of the study for the short-term period (September 2016 to March 31st, 2017) and the long-term period (September 2016 to September 1st, 2017) after the election of Donald Trump as President of the United States 45th can be seen in Table 2 and Table 3.

Table 2 and Table 3 shows that only SET variables are stationary at the level or not found the existence of a unit root. It is indicated by the SET variable probability value smaller than a significant level of 5 percent, i.e., 1.06 percent. JKSE, KLSE, PSEI, and STI variables are not stationary at the level, so necessary to do integration degree test. Table 4 and Table 5 present test result from an integration degree test of JKSE, KLSE, SET, PSEI, and STI variables in the short-term and long-term periods.

Table 1. Descriptive Statistics

	JKSE	KLSE	PSEI	SET	STI
Mean	5498.856	1709.898	7492.245	1543.527	3067.015
Median	5410.270	1708.080	7557.340	1564.590	3117.030
Maximum	5915.360	1792.350	8046.590	1614.140	3354.710
Minimum	5027.700	1616.640	6563.670	1406.180	2787.270
Std. Dev.	230.1480	54.11412	380.0737	40.88702	174.7514
Observations	217	217	217	217	217

Table 2. Augmented Dickey-Fuller Test Statistic (Level) Period September 2016 to March 31st, 2017

	JKSE	KLSE	SET	PSEI	STI
Level	0.5622	0.7360	0.0106	0.6855	0.4769
t-Statistic	-2.061120	-1.722188	-4.009942**	-1.828311	-2.215156

Source: Data analysis (2018)
Note: **Significant at the level 5 percent

Table 3. Augmented Dickey-Fuller Test Statistic (Level) Period September 2016 to September 1st, 2017

	JKSE	KLSE	SET	PSEI	STI
Level	0.2122	0.4092	0.0352	0.3856	0.3071
t-Statistic	-2.764625	-2.341808	-3.565746**	-2.386373	-2.543208

Source: Data analysis (2018)
Note: **Significant at the level 5 percent

Table 4 and Table 5 shows that the JKSE, KLSE, SET, PSEI, and STI variables will be stationary on a degree or differentiation order one (1). It is indicated by the probability value of JKSE, KLSE, SET, PSEI, and STI variables smaller than 1 percent significant level, i.e., 0 percent.

Cointegration test in this research was conducted by Johansen Cointegration Test procedure. Cointegration relationships can be indicated by checking at trace statistic values. The results of the Johansen Cointegration Test short-term period (September 2016 to March 31st, 2017) and the long-term period (September 2016 to September 1st, 2017) af-

ter the election of Donald Trump as President of the United States 45th can be seen in Table 6 and Table 7.

Table 6 shows that in the short-term period (September 2016 to March 31st, 2017) there is a cointegration relationship. This is indicated by the trace statistic value (93.87600) which is greater than 0.05 critical value (88,80380). Table 7 shows that in the long-term period (September 2016 to September 1st, 2017) there is a cointegration relationship indicated by the trace statistic value (98.90921) greater than 0.05 critical value (88.80380).

Table 4. Augmented Dickey-Fuller Test Statistic (1st Difference) Period September 2016 to March 31st, 2017

	JKSE	KLSE	SET	PSEI	STI
1st Difference	0.0000	0.0000	0.0000	0.0000	0.0000
t-Statistic	-10.04854*	-11.84126*	-10.07333*	-11.07417*	-12.15228*

Source: Data analysis (2018)
Note: *Significant at the level 1 percent

Table 5. Augmented Dickey-Fuller Test Statistic (1st Difference) Period September 2016 to September 1st, 2017

	JKSE	KLSE	SET	PSEI	STI
1st Difference	0.0000	0.0000	0.0000	0.0000	0.0000
t-Statistic	-13.81117*	-15.06622*	-13.27164*	-14.14654*	-15.56364*

Note: *Significant at the level 1 percent

Table 6. Johansen Cointegration Test (Trace Statistic) Period September 2016 to March 31st, 2017

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.229562	93.87600	88.80380	0.0205
At most 1	0.182080	59.71168	63.87610	0.1066
At most 2	0.141417	33.38186	42.91525	0.3176
At most 3	0.067426	13.40796	25.87211	0.7059
At most 4	0.032020	4.263227	12.51798	0.7038

Table 7. Johansen Cointegration Test (Trace Statistic) Period 1 September 2016 to September 1st, 2017

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.162639	98.90921	88.80380	0.0077
At most 1	0.130014	60.74661	63.87610	0.0891
At most 2	0.064485	30.80176	42.91525	0.4553
At most 3	0.047264	16.47031	25.87211	0.4554
At most 4	0.027795	6.060503	12.51798	0.4527

The analysis of capital market integration is conducted with Vector Error Correction Model (VECM). The results of the Vector Error Correction Model (VECM) for the short-term period (September 2016 to March 31st, 2017) and the long-term period (September 2016 to September 1st, 2017) following the election of Donald Trump as 45th President of the United States can be seen in Table 8 and Table 9.

Table 8 presents the estimation results of the short-term VECM model period (September 2016 to March 31st, 2017) after the election of Donald Trump as 45th President of the United States. From these results can be obtained VECM capital and capital market integration analysis as follows:

$$JKSE_t = 1.701417 + 0.118833JKSE_t + 0.237837KLSE_t + 0.461273SET_t - 0.031003PSEI_t - 0.251851STI_t$$

JKSE was positively influenced by SET with a coefficient of 0.461273 and t-statistic of 1.30740 at a significant level of 10 percent (1.282). This positive influence shows that these two countries have a comovement.

$$KLSE_t = 0.396623 - 0.092232KLSE_t - 0.051265SET_t - 0.001516PSEI_t + 0.045098STI_t + 0.034453JKSE_t$$

KLSE was positively influenced by JKSE with a coefficient of 0.034453 and t-statistic of 1.71870 at a significant level of 5 percent (1.645). This positive influence shows that these two countries have a comovement.

$$SET_t = 0.611274 + 0.206428SET_t + 0.005901PSEI_t - 0.117881STI_t + 0.007957JKSE_t + 0.099899KLSE_t$$

SET was negatively influenced by STI with coefficients of -0.117881 and t-statistic of -1.89542 at a significant level of 5 percent (1.645). This negative influence shows that these two countries have opposite stock price movements.

In the short-term period, SET was also positively influenced by the pattern of SET last period with a coefficient of 0.206428 and t-statistic of 2.26283 at a significant level of 5 percent (1.645). The Thailand capital market coefficient value indicates that every increase of one (1) point of Thailand capital market index in last period will increase the current Thailand capital market index by 0.206428 points.

$$PSEI_t = -4.370311 - 0.002205PSEI_t + 0.240346STI_t - 0.071927JKSE_t - 0.521165KLSE_t + 1.237049SET_t$$

PSEI was positively influenced by SET with a coefficient of 1.237049 and t-statistic of 1.90545 at a

Table 8. VECM Results Period September 2016 to March 31st, 2017

Dependent Variable	JKSE	KLSE	SET	PSEI	STI
JKSE	0.118833	0.034453	0.007957	-0.071927	0.099675
	(1.10348)	(1.71870)**	(0.28575)	(-0.36298)	(2.16974)**
KLSE	0.237837	-0.092232	0.099899	-0.521165	-0.158861
	(0.42460)	(-0.88456)	(0.68975)	(-0.50564)	(-0.66484)
SET	0.461273	-0.051265	0.206428	1.237049	0.013826
	(1.30740)***	(-0.78058)	(2.26283)**	(1.90545)**	(0.09186)
PSEI	-0.031003	-0.001516	0.005901	-0.002205	0.010495
	(-0.52050)	(-0.13668)	(0.38313)	(-0.02011)	(0.41305)
STI	-0.251851	0.045098	-0.117881	0.240346	-0.163127
	(-1.04706)	(1.00723)	(-1.89542)**	(0.54303)	(-1.58982)***
Coefficient	1.701417	0.396623	0.611274	-4.370311	3.207673
	(0.43250)	(0.54162)	(0.60096)	(-0.60374)	(1.91145)

Note: The numbers in brackets are t-statistic.
** Significant at the level 5 percent
*** Significant at the level 10 percent

significant level of 5 percent (1.645). This positive influence shows that these two countries have a comovement.

$$STI_t = 3.207673 - 0.163127STI_t + 0.099675JKSE_t - 0.158861KLSE_t + 0.013826\ SET_t + 0.010495PSEI_t$$

STI was positively influenced by the movement of JKSE with a coefficient of 0.099675 and t-statistic of 2.16974 at a significant level of 5 percent (1.645). This positive influence shows that these two countries have a comovement.

STI was negatively influenced by the pattern of STI last period with a coefficient of -0.163127 and t-statistic of -1.58982 at a significant level of 10 percent (1.282). The Singapore capital market coefficients value indicates that every increase of one (1) point of Singapore capital market index in last period will decrease the current Singapore capital market index by -0.163127 points.

VECM model analysis results in the short-term period (September 2016 to March 31st, 2017) found a capital market integration in several ASEAN-5 countries. The integration of the capital market is due to trade relations and geographical similarity in ASEAN-5 countries. The existence of integration and inter-linkages between ASEAN-5 countries is evidenced by the presence of comovement in the capital market of ASEAN-5 countries. Based on the results, H_1 which stated that there is a short-term capital market integration that affects the capital market in some countries in the ASEAN-5 region after the election of Donald Trump as President of the 45th United States is accepted.

Table 9 presents the estimation results of the long-term VECM model period (September 2016 to September 1st, 2017) after the election of Donald Trump as 45th President of the United States. From these results can be obtained VECM capital and capital market integration analysis as follows:

$$JKSE_t = 2.285997 + 0.050428JKSE_t - 0.144019KLSE_t + 0.296880SET_t - 0.002003PSEI_t - 0.022547STI_t$$

JKSE is not affected by the capital markets of Malaysia, Thailand, the Philippines, and Singapore. This is proved by the t-statistic value of Malaysian capital market (-0.32264), Thailand (0.97385), Philippines (0,04264), and Singapore (-0.12590) which is smaller than the t-table value at 1 percent significant level (2.326), 5 percent (1.645), and 10 percent (1.282).

Table 9. VECM Results Period September 2016 to September 1st, 2017

Variabel Terikat	JKSE	KLSE	SET	PSEI	STI
JKSE	0.050428	0.025069	0.008010	-0.038945	0.040513
	(0.63201)	(1.78656)**	(0.42005)	(-0.29189)	(1.18286)
KLSE	-0.144019	-0.088515	-0.093191	-0.235448	-0.008900
	(-0.32264)	(-1.12758)	(-0.87354)	(-0.31543)	(-0.04645)
SET	0.296880	-0.060747	0.168379	1.374203	-0.015538
	(0.97385)	(-1.13309)	(2.31103)**	(2.69569)*	(-0.11873)
PSEI	0.002003	-0.001752	0.022165	0.018836	-0.010383
	(0.04264)	(-0.21203)	(1.97442)**	(0.23980)	(-0.51495)
STI	-0.022547	0.012487	-0.093209	0.090799	-0.103694
	(-0.12590)	(0.39645)	(-2.17763)**	(0.30319)	(-1.34883)***
Koefisien	2.285997	0.441544	0.557216	0.220081	2.267797
	(0.78987)	(0.86752)	(0.80558)	(0.04547)	(1.82543)

Note: The numbers in brackets are t-statistic.
** Significant at the level 5 percent
*** Significant at the level 10 percent

$KLSE_t$ = 0.441544 - 0.088515$KLSE_t$ - 0.060747SET_t - 0.001752$PSEI_t$ - 0.012487STI_t + 0.025069$JKSE_t$

KLSE was positively influenced by the movement of JKSE with a coefficient of 0.025069 and t-statistic of 1.78656 at a significant level of 5 percent (1.645). This positive influence shows that these two countries have a comovement.

SET_t = 0.557216 + 0.168379SET_t + 0.022165$PSEI_t$ - 0.093209STI_t + 0.008010$JKSE_t$ + 1.374203$KLSE_t$

SET was positively influenced by the movement of PSEI with a coefficient of 0.022165 and t-statistic of 1.97442 at a significant level of 5 percent (1.645). This positive influence shows that the Philippines and Thailand have had a comovement.

STI on SET is negative. It can be seen from STI coefficient value, i.e. -0.093209 and t-statistic of -2.17763 at a significant level of 5 percent (1.645). This negative influence shows that Singapore and Thailand have opposite stock price movements.

In the long-term period, SET is also positively influenced by the pattern of SET last period with a coefficient of 0.168379 and t-statistic of 2.31103 at a significant level of 5 percent (1.645). The Thailand capital market coefficient value indicates that every increase of one (1) point of Thailand capital market index last period will increase the current Thailand capital market index by 0.168379 points.

$PSEI_t$ = 0.220081 + 0.018836$PSEI_t$ + 0.090799STI_t - 0.038945$JKSE_t$ - 0.235448$KLSE_t$ + 1.374203SET_t

PSEI was positively influenced by SET with a coefficient of 1.374203 and t-statistic of 2.69569 at 1 percent significant level (2.326). This positive influence shows that the two countries have a comovement. In the long-term period, the level of significance of PSEI and SET increased from 5 percent to 1 percent. This shows that the capital mar-

ket between the Philippines and Thailand is increasingly integrated.

STI_t = 2.267797 - 0.103694STI_t + 0.040513$JKSE_t$ - 0.008900$KLSE_t$ - 0.015538SET_t - 0.010383$PSEI_t$

The long-term STI is negatively influenced by the pattern of STI last period with a coefficient of -0.103694 and t-statistic of -1.34883 at a significant level of 10 percent (1.282). The value of the Singapore capital market coefficient indicates that every increase of one (1) point index of the Singapore capital market last period will decrease the current Singapore capital market index by -0.103694 points.

VECM model analysis results in the long-term period (September 2016 to September 1st, 2017) found the integration of capital markets in some ASEAN-5 countries. In the long-term period, there is no comovement and dynamic relationship between the IHSG and the ASEAN-5 state capital market. The same situation is also experienced by STI. The findings show that domestic factors in Indonesia and Singapore are more dominant in influencing the capital market of each country compared to external factors. Based on the results, H_2 which stated that there is long-term capital market integration affecting the capital market in some countries in the ASEAN-5 region after the election of Donald Trump as President of the 45th United States is accepted.

Contagion effect analysis of the capital market is conducted by the Granger causality test. The results of the Granger causality test for the short-term period (September 2016 to March 31st, 2017) and the long-term period (September 2016 to September 1st, 2017) after the election of Donald Trump as President of the United States 45th can be seen in Table 10 and Table 11.

Table 10 (period September 2016 to March 31st, 2017) show that after the election of Donald Trump as the 45th President of the United States, JKSE gets

the contagion effect of KLSE. The Malaysian capital market gets the contagion effect STI and SET. STI gets a contagion effect from SET. SET gets a contagion effect from PSEI. From the contagion effect, it

can be seen that the Philippines is a country that responds the election of Donald Trump as President of the United States 45th quickly.

Table 10. The Granger Causality Test Results in Period September 2016 to March 31ˢᵗ, 2017

Null Hypothesis:	Obs	F-Statistic	Prob.
KLSE does not Granger Cause JKSE	132	4.00887	0.0474
JKSE does not Granger Cause KLSE		0.71811	0.3983
PSEI does not Granger Cause JKSE	132	0.44643	0.5052
JKSE does not Granger Cause PSEI		0.00259	0.9595
SET does not Granger Cause JKSE	132	0.54740	0.4607
JKSE does not Granger Cause SET		0.75416	0.3868
STI does not Granger Cause JKSE	132	1.93557	0.1665
JKSE does not Granger Cause STI		0.38444	0.5363
PSEI does not Granger Cause KLSE	132	0.00337	0.9538
KLSE does not Granger Cause PSEI		0.08445	0.7718
SET does not Granger Cause KLSE	132	5.39794	0.0217
KLSE does not Granger Cause SET		0.14694	0.7021
STI does not Granger Cause KLSE	132	6.76992	0.0104
KLSE does not Granger Cause STI		0.60419	0.4384
SET does not Granger Cause PSEI	132	0.23108	0.6315
PSEI does not Granger Cause SET		3.61484	0.0595
STI does not Granger Cause PSEI	132	0.13079	0.7182
PSEI does not Granger Cause STI		0.69556	0.4058
STI does not Granger Cause SET	132	1.66863	0.1988
SET does not Granger Cause STI		6.75572	0.0104

Source: Data analysis (2018)

Table 11. Granger Causality Test Results in Period September 2016 to September 1ˢᵗ, 2017

Null Hypothesis:	Obs	F-Statistic	Prob.
KLSE does not Granger Cause JKSE	216	6.80519	0.0097
JKSE does not Granger Cause KLSE		1.02879	0.3116
PSEI does not Granger Cause JKSE	216	0.93279	0.3352
JKSE does not Granger Cause PSEI		5.21916	0.0233
SET does not Granger Cause JKSE	216	0.95767	0.3289
JKSE does not Granger Cause SET		0.56199	0.4543
STI does not Granger Cause JKSE	216	5.15547	0.0242
JKSE does not Granger Cause STI		0.00087	0.9765
PSEI does not Granger Cause KLSE	216	0.01017	0.9198
KLSE does not Granger Cause PSEI		5.24911	0.0229
SET does not Granger Cause KLSE	216	6.92216	0.0091
KLSE does not Granger Cause SET		0.50124	0.4797
STI does not Granger Cause KLSE	216	8.56951	0.0038
KLSE does not Granger Cause STI		0.23797	0.6262
SET does not Granger Cause PSEI	216	3.73410	0.0546
PSEI does not Granger Cause SET		0.27403	0.6012
STI does not Granger Cause PSEI	216	5.47294	0.0202
PSEI does not Granger Cause STI		0.37658	0.5401
STI does not Granger Cause SET	216	3.23913	0.0733
SET does not Granger Cause STI		7.31477	0.0074

The response is indicated by the number of investors selling action that caused the decline in the Philippine stock price index by 2.36 percent at the time the incident occurred. Based on the results, H_3 which stated that there is a short-term contagion effect affecting the capital market in some countries in the ASEAN region after the election of Donald Trump as President of the 45th United States is accepted. Here is a picture of the contagion effect of the capital market in ASEAN-5 countries in the short-term period.
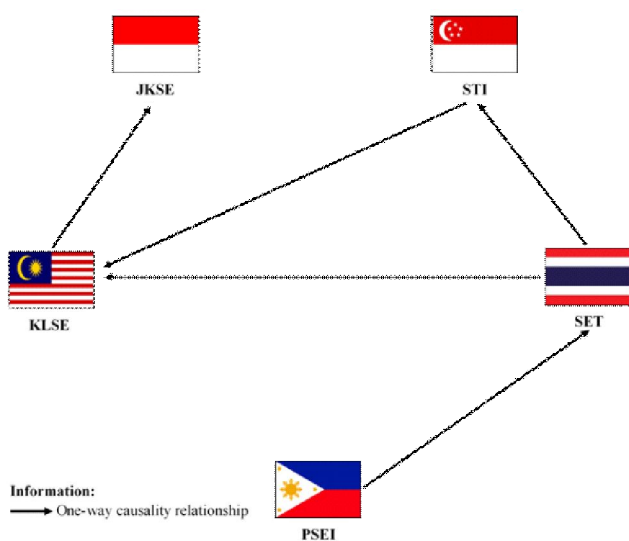
Figure 1. Short-term Contagion Effect on ASEAN-5 Countries

Table 11 (period September 2016 to September 1, 2017) show that after the election of Donald Trump as 45th President of the United States the number of causality relations and significance levels in the ASEAN-5 countries has increased. In the long-term period, it was found that JKSE got the contagion effect from STI and KLSE. KLSE got the contagion effect from STI and SET.

PSEI gets the contagion effect from other ASEAN-5 countries capital markets (Indonesia, Malaysia, Singapore, and Thailand).

There is a two-way causal relationship between STI and SET. This two-way causal relationship shows that the Singapore and Thailand countries are giving each other the contagion effect after the election of Donald Trump as the 45th President of the United States. Contagion effect is given by SET toward STI is bigger than the contagion effect given by STI to SET. It can be seen from the SET to STI probability value smaller than STI to SET, that is 0.74 percent (less than 1 percent level of significance) compared to 7.33 percent (less than 10 percent level of significance). The smaller the probability value of a variable than the level of significance, he greater the transmission effect. Here is a picture of the contagion effect of the capital market in ASEAN-5 countries in the long-term period.
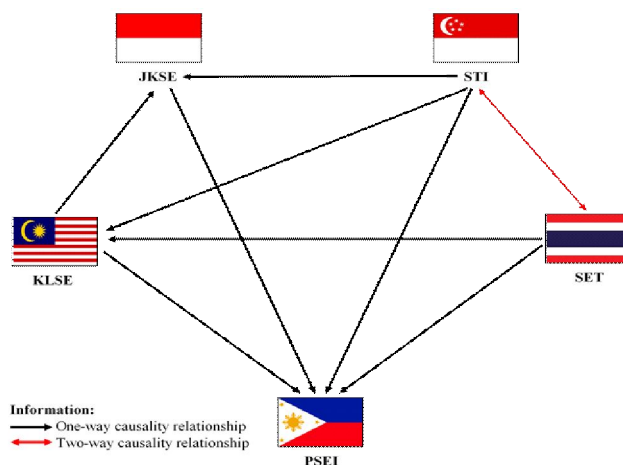

Figure 2. Long-term Contagion Effect in ASEAN-5 Countries

The results of the Granger causality test period (September 2016 to September 1st, 2017) show that STI is the country with the most contagion effect in other ASEAN-5 countries. This is due to the relationship between Singapore and other ASEAN-5 countries in the export and import. Singapore has a high percentage of exports and imports in ASEAN-5 countries, thereby enhancing economic interdependence in ASEAN-5 countries. Based on the re-

sults, H_4 which stated that there is a long-term contagion effect affecting capital markets in some countries in the ASEAN region after the election of Donald Trump as President of the 45th United States **is accepted**.

DISCUSSION

The tests using the Vector Error Correction Estimates (VECM) model and the Granger Causality Test were conducted to demonstrate the existence of capital market integration and contagion effects after a major economic event occurred. The results of VECM analysis for the short-term period (September 2016 - March 31, 2017) indicate that there are several comovements between ASEAN-5 capital markets. This is in accordance with the results of research by Suganda & Soetrisno (2016) who found the existence of integration and linkages of capital markets in ASEAN-5 countries. The integration and linkages of the capital market occur because of the existence of trade relations and geographical location similarity.

In the long term period (September 1, 2016 - September 1, 2017) there was a relationship between ASEAN-5. The long-term relationship shows that the ASEAN-5 capital market has been integrated. In this term, there is no dynamic comovement and linkage between the Indonesian capital market and other ASEAN-5 capital markets. The result shows that Indonesia's domestic factors influence the Indonesian capital market more than external factors. The results of this study are in line with the research of Suganda & Soetrisno (2016), which states that there is no comovement between the Indonesian capital market (JKSE) and the Malaysian capital markets (KLSE), Thailand (SET), Philippines (PSEI), and Singapore (STI). However, the results of this study contradict the results of Tan's (2014) study. Tan (2014) found that the Indonesian capital market has movements that are in contrast to the capital markets of other ASEAN-5 member countries.

The result of the Granger Causality Test analysis for the short term period (September 1, 2016 - March 31, 2017) shows that there is a contagion effect in several ASEAN countries. Malaysia has the effect of contagion from Thailand and Singapore. Singapore has the effect of contagion from Thailand. Thailand has the effect of contagion from Philippine. Malaysia has the effect of contagion on Indonesia (it is shown in Figure 1). The effect of this contagion effect shows that the Philippines (PSEI) has a fast response.

In the long term period (September 1, 2016 - September 1, 2017), it was found that there was an increase in the number and significance level of causality relations among ASEAN-5 countries. In the short-term period, the Thailand capital market has a contagion effect on the Singapore capital market, but the Singapore capital market does not affect the Thailand capital market. In the long term period after the Donald Trump election, Thailand and Singapore influenced each other. However, the effect of the contagion provided by Thailand on Singapore is greater when compared to the effect of contagion given by Singapore to Thailand.

In general, the integration and linkage of the Indonesian capital market with the capital markets in ASEAN-5 countries or developed countries, such as China and the United States, play a large role in the development of the global economy. Capital market integration will make the capital markets of various countries interconnected and have similar stock price movements in responding to a major economic event.

CONCLUSION AND SUGGESTIONS
Conclusion

Based on the results of data processing and data testing that has been done, this research found the short-term and long-term market integration in

ASEAN-5 countries after the election of Donald Trump as President of the 45th United States. The integration of the ASEAN-5 countries occurs because of the trade relations, such as exports and imports. The trade relationship can also affect Foreign Direct Investment (FDI) in the ASEAN-5 countries. The occurrence of capital market integration in ASEAN-5 countries causes a short-term and long-term contagion effect in ASEAN-5 countries after the election of Donald Trump as President of the 45th United States. This contagion effect emerges as a risk of capital market integration. The existence of a contagion effect can cause shocks that occur in a country can be transmitted to other countries that have been integrated into the country.

Suggestions

Related to the substantial risk arising from the integration of the Indonesia capital market with ASEAN countries and other developed countries, market participants are required to pay attention and analyze the factors that can affect price movement. These factors can be either internal or external factors. External factors can be an economic crisis and political crisis, such as government change, war, and terrorism. These events have useful information content for market participants in making their investment decisions. Suggestions for research development or further research are able to use other political events, such as Donald Trump's statement regarding Jerusalem as the capital of Israel.

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