IFRS Adoption and Foreign Direct Investment: An Application of the LSDVC Estimator

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ABSTRACT

Foreign Direct Investment (FDI) has been identified as an economic consequence of International Financial Reporting Standard (IFRS) adoption. However thus far, limited studies have examined this issue. The objective of this study is to examine the relationship between IFRS adoption by ASEAN countries and FDI. In order to fulfill this objective, this study hypothesized that IFRS adoption is positively associated with FDI inflows. The hypothesis was empirically tested using a sample of 10 ASEAN countries from 2001 to 2016. The estimations were run using a bias corrected Least Square Dummy variable (LSDVC) to solve the endogeneity problem. The results of LSDVC indicate that IFRS adoption is positively associated with FDI inflows. Normally after the adoption of a new standard such as IFRS, regulators, practitioners and academicians would be interested to understand the consequences. Therefore, this study contributes to the understanding of the economic consequences of IFRS.

Keywords: IFRS Adoption; Foreign Direct Investment (FDI); LSDVC Estimator; Economic Consequence of IFRS

INTRODUCTION

IFRS as global accounting standard has been widely employed as one of the key inputs to reduce information asymmetry and increase accounting information quality for purpose of investment decisions (Ball 2006; Daske 2006; Ahmed, Neel & Wang2013; Chen, Ding & Xu 2014; Kao & Wei 2014; Zaidi & Paz 2015). In other side, one of the most important goals of economic policy in almost every country in the world is to increase their economic growth (Gordon et al. 2012; Zaidi & Huerta 2014;Nor, Wah & Nor 2015;Lungu et al. 2017). Most countries, especially developing countries target to achieve the economic growth by attracting FDI into their economies (Akisik 2014; Feeny, Iamsiraroj & McGillivray

2014;Thampanishvong & Kannika 2015; Iamsiraroj 2016; Ojewumi & Akinlo1 2017). However, foreign investors prefer markets with high quality information that enables them to assess investment prospects at a lower cost (Gordon, Loeb & Zhu 2012;Akisik 2014). Therefore, IFRS adoption may leads to achieve the transparency to satisfy the information needs of the foreign investors.

Although FDI has been identified as an economic consequences of IFRS adoption (Samaha & Khlif 2016; Utama, Farahmita & Anggraita 2016), very few studies have addressed this issue in greater detail (Zeghal & Mhedhbi 2006; Gordon et al. 2012; Brüggemann, Hitz & Sellhorn 2013 Lourenço & Branco 2015). Most studies that looked at economics consequence of IFRS adoption tend to focus on cost of equity capital (Holger Daske, Hail, Leuz & Verdi 2008; Castillo-merino, Menéndez-plans & Orgaz 2014; Utama et al. 2016). Furthermore very few studies have looked at the economic consequence of IFRS adoption in developing countries (Gordon et al. 2012; Lungu et al. 2017). Therefore, this study aims to fill the gap by focusing on IFRS adoption and FDI in the Association of Southeast Asian Nations (ASEAN).

Past studies have showed that adoption of IFRS leads to improved financial information quality (Naranjo, Saavedra & Verdi 2013; Chen et al. 2015; Zaidi & Paz 2015). Higher financial information quality leads to more transparency and more comparability which consequently may improve information asymmetry (Ball 2006; Epstein 2009; Ahmed et al. 2013; Zaidi & Paz 2015; Li, Sougiannis & Wang 2017). Therefore it could be concluded that more transparent financial information or lower information asymmetry are more likely to attract more foreign investors and consequently results in economic growth. However, within ASEAN, two countries which is Indonesia and Vietnam have received high FDI inflows even though these countries have not adopted IFRS (IASB 2016) (http://www.ifrs.org/use-around-the-world/use-of-ifrs-standards-by-jurisdiction/) (Figure 1). Hence is it true that IFRS adoption really leads to higher transparency and more inflows of FDI?

As highlighted earlier, studies which examined the relationship between IFRS adoption and FDI are limited. Additionally, thus far, all of them applied a statics panel and Ordinary Least Squares (OLS) estimator for testing the relationship between the variables (Gordon et al. 2012; Lungu et al. 2017). Gordon et al. (2012) beside OLS estimator also apply a two-stage instrumental variable (IV) model and Generalized Moment Method (GMM) (Conley 1999) to correct potential endogeneity problem between IFRS adoption and FDI. In examining the relationship between IFRS and FDI, there may exist endogeneity problem that is not addressed via the use of the OLS estimator (Gordon et al. 2012). The presence of individual-specific effects, lagged dependent variable and potential endogeneity of independent variables making the traditional panel estimators such as OLS inappropriate (Nickell 1981). One of solution which is introduced by past studies to solve the potential endogeneity problem is GMM estimator. However, GMM estimator is designed for situation with small time-series and large cross-section, hence it is not appropriate for this study as consider ASEAN 10 from 2001 until 2016. Bruno (2005) developed the bias corrected Least Square Dummy variable (LSDVC) for short dynamic panels with fixed effects. Indeed the LSDVC is an alternative method for GMM to estimate the dynamic models with fixed effect which is designed for small data sets (Bruno 2005). To the best of knowledge, no studies have applied LSDVC to examine the relationship between IFRS adoption and FDI inflows. Therefore, this study for addressing endogeneity problem applies the Least Square Dummy variable bias-Corrected (LSDVC) to examine the relationship between IFRS adoption and FDI inflows.

Besides the methodological contribution as discussed above, findings of this study could be useful for countries which are IFRS adopter to understand the economic

consequences of IFRS while for non-adopter, the findings would be useful inputs in deliberating adoption. This study also contributes to the extant literature by focusing on IFRS adoption and FDI. It is important to note that, without appropriate knowledge of the impact of IFRS adoption, potential decision makers could be misled into making a sub-optimal decision. The outcomes of this study help to generalized with findings of earlier studies which examined the effect of IFRS on FDI. The outcomes also can be useful for international authority bodies such as IASB, World Bank and International Monetary Fund (IMF) that have attempted to achieve harmonization around the world in different areas such as accounting standards. The outcomes of this study would motivate researchers to also examine other economic consequences of IFRS in ASEAN countries.

The remainder of this study will proceed as follows. In the next section, a brief review of the relevant literature is provided, which is then followed by the hypothesis development. After that, the research design, sample and research models used for testing the hypothesis are discussed. The estimation strategy are discussed in next section. The findings of this study are presented in the last section. The limitation and suggestion for potential future research also are provided in the final section of this paper.

LITERATURE REVIEW

One of the interesting issues that more frequently has been analyzed and discussed in the accounting field in recent years is IFRS adoption at the international level. IFRS are part of the accounting infrastructure that assists countries to promote their economic growth (Larson & Kenny 1995; Zaidi & Huerta 2014). In general, studies on IFRS adoption found that IFRS improves the transparency and consequently may leads to reduce information asymmetry and may enhances comparability and information quality.

Ball (2016) believed that firms with IFRS adoption make its financial information more informative because IFRS provides better accounting information. Thus, IFRS adoption will lead to improve investors' ability to make financial decisions, improve investment and an effective allocation of financial resources worldwide (Brown 2013). IFRS adoption may result in increased value relevance and less earning management. Ahmed et al. (2013) suggested that IFRS produce more relevant and faithful information compared to local GAAP. Ahmed et al. (2013) also believed that IFRS adoption reduce the scope for managerial discretion since they are characterized by strong recognition rules, measurement and disclosure requirements compared to local GAAP. Palea (2014) examined the effects of IFRS adoption on financial reporting quality in the EU. Palea (2014) concluded that the IFRS is value relevant. Black & Maggina (2016) also examined value relevance of IFRS adoption in Greece and showed that several financial ratios were dramatically affected by IFRS adoption in Greece. García, Alejandro, Sáenz and Sánchez (2017) analyzed whether changing from local to international accounting standards improves the quality of accounting for Latin American companies. The study also found changes from local accounting regulations to internationally approved standards increase the value relevance.

Recently, many countries have adopted IFRS to achieve effective accounting and reporting systems. Therefore, it is important to understand the economic consequences of IFRS adoption. There are several studies have been examined economic consequences of IFRS (Ismail & Kamarudin 2013; Elbannan 2011; Utama, Farahmita & Anggraita 2016; Brüggemann et al. 2013; Lourenço & Branco 2015; Zeghal & Mhedhbi 2006). These studies looked as economic consequences of IFRS adoption based on three indicators which are, IFRS and economic growth, IFRS and the cost of equity capital and IFRS and FDI. Past studies widely examined the relationship between IFRS adoption and economic growth and cost of equity capital.

Daske (2006) investigated the impact of IFRS adoption on economic growth. The study found that the adoption of IFRS does not directly lead to the economic benefits by using a sample firms in Germany. Zehri and Abdelbaki (2013) looked at the association between IFRS adoption and economic growth in developing countries. Contrary to Daske (2006), they reported that economic growth have been increased with the advent of IFRS adoption. Zaidi and Huerta (2014) assessed the impact of IFRS adoption on the economic growth of adopting countries. The results also indicated that IFRS leads to economic growth. Özcan (2016), investigated whether the adoption of IFRS leads to countries' economic growth between 41 countries that adopted IFRS and 29 countries that have not yet adopted IFRS. The results in line with Zaidi and Huerta (2014) reveal that IFRS adoption has significantly increased countries' economic growth. Houqe et al. (2016) investigated the economic consequences of adoption of IFRS for reporting by New Zealand listed companies as indicated by the effect on the cost of equity capital. The study found that there is a significant negative association between IFRS adoption and the cost of equity capital. In contrast, Tu (2013), Uwalomwa, Emeni, Uwuigbe and Oyeleke (2016) and Utama et al. (2016) found that IFRS adoption does not lead to the lower cost of equity capital.

Some of the prior researches reported that there is a solid relationship between IFRS and FDI. For example, DeFond, Hu, Hung and Li (2011) examined changes in FDI in firms after mandatory IFRS adoption in the EU countries from 2003–2007. DeFond et al. (2011) concluded that FDI increases when mandatory IFRS adoption leads to improved comparability. Gordon et al. (2012) also examined the effect of IFRS adoption on FDI inflows and covered 124 countries, for the period from 1996 through 2009. The findings of the study supported the argument that IFRS adoption is positively associated with FDI inflows. Lungu et al. (2017) also examined the effect of IFRS adoption on FDI in in 26 emerging countries within 1996 until 2014. The study found IFRS adopters are more likely to benefit from a higher increase in FDI inflows than the non-adopters.

Based on the above discussion, there are good reasons to suggest that IFRS may well be an additional important driver of FDI. However, in the literature there is limited studies that looked at IFRS as a determinants of FDI (Gordon et al. 2012). Furthermore, evidence of economic consequences of IFRS is still limited in developing countries especially with respect to the impact of IFRS adoption on FDI. In other side, the IFRS foundation has recognized the need to understand the impact of IFRS adoption in different parts of the world, especially in developing or emerging countries. There are little empirical documents that are known about this topic with respect to members of the Association of South East Asian Nations (ASEAN), which includes some of the world's fastest-growing economies (Joshi et al. 2016).

Based on this literature review, there is an important gap in the literature given the exist differences between countries, in the aspects of economy and society, regulatory authorities and accounting practices which could theoretically determine the effectiveness of IFRS adoption (Zeghal & Mhedhbi 2006;Gordon et al. 2012;Lourenço & Branco 2015; Zhai & Wang 2016; Özcan 2016; Zaidi & Paz 2015; Khaled Samaha & Khlif 2016). Especially, there are limited studies which examined the effect of IFRS on FDI, and specifically, there is no study to examine this relationship in ASEAN countries. It is hoped that this study contributes to accounting knowledge and to understanding of the economic consequences of IFRS adoption.

Countries are likely to make the decision to adopt IFRS because they believe that IFRS adoption provides a strong signal to the world that the firms in those countries will provide more meaningful and transparent accounting information than otherwise would be the case (Gordon et al. 2012). This signal should have a positive effect on attracting the foreign investors to investigate on those countries. Therefore based on above arguments, this study

apply signaling theory as a relevant theory to explain the relationship between IFRS adoption and FDI.

As mentioned in literature review section, there are a few studies that provide a link between IFRS and FDI (DeFond et al. 2011; Gordon et al. 2012; Lungu et al. 2017). Therefore, the relationship between IFRS and FDI has not been well developed. As well as, in the best of knowledge, there is no study that examine the effect of IFRS on FDI in ASEAN. In line with signaling theory, countries signal by IFRS to the investors that their companies prepare more transparent financial information compare with countries without IFRS adoption. Then more transparent financial information may leads to information asymmetry improvement and consequently this signal should have a positive effect on attracting the foreign investors to investigate on those countries.

Therefore, based on the discussion above and the assertion of signaling theory, this study hypothesizes that:

H_1: *IFRS adoption has a positive association with foreign direct investment inflows.*

METHODOLOGY

This study uses the approach similar to Gordon et al. (2012) and Lungu et al. (2017) to examine the effect of IFRS adoption on FDI inflows which involve a panel data research design. In relationship between IFRS and FDI may be an endogeneity problem that is not addressed via the use of the OLS estimator (Gordon et al. 2012). Therefore, LSDVC estimator applies to solve the endogeneity problem. To the best of knowledge this is the first time which LSDVC estimator apply to examine the relationship between IFRS adoption and FDI inflows. In line with Leuz (2010) this study also uses the benchmark model which takes into consideration other economic factors that are most likely to influence FDI. A benchmark model provides an opportunity for researchers to ensure that all of the appropriate control variables are considered before analyzing the impact of adopting IFRS on FDI inflows (Gordon et al. 2012).

Research Models

This study uses three benchmark equation models which all models are consistent with earlier studies that address IFRS and FDI (e.g. Gordon et al. 2012; Lungu et al. 2017). This study proposes the first benchmark model to examine the effects of control variables on FDI without considering the adoption of IFRS to ensure that the results are consistent with earlier studies which addressed FDI. And the second and third models consider the effect of IFRS adoption. The second model examines the effects of IFRS using dummy variables to explore its effect on FDI between ASEAN countries. The third model considers the effect of IFRS based on score to explore effect of compliance level of IFRS on FDI between ASEAN countries. Table 1 presents three equation models applied by this study.

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Table 1: Equation models of this study

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Equation Models for LSDVC with lag	
$LnFDI_{i,t} = \beta_0 + \beta_1 LnFDI_{i,t-1} + \beta_2 GDPGROWTH_{i,t} + \beta_3 Inflation_{i,t} + \beta_4 EXCH_{i,t} + \beta_5 EDU_{i,t}$ $+ \beta_6 NODA_{i,t} + \beta_7 Voice_{i,t} + \beta_8 Governance_{i,t} + \beta_9 Control\ of\ corruption_{i,t}$ $+ \beta_{10} GFC_{i,t} + \varepsilon_{i,t}$	(1)
$LnFDI_{i,t-1} = \beta_0 + \beta_1 LnFDI_{i,t-1} + \beta_2 IFRS(DUMMY)_{i,t}$ $+ \beta_3 GDPGROWTH_{i,t} + \beta_4 Inflation_{i,t} + \beta_5 EXCH_{i,t} + \beta_6 EDU_{i,t} + \beta_7 NODA_{i,t}$ $+ \beta_8 Voice_{i,t} + \beta_9 Governance_{i,t} + \beta_{10} Control\ of\ corruption_{i,t} + \beta_{11} GFC_{i,t}$ $+ \varepsilon_{i,t}$	(2)

$$LnFDI_{i,t} = \beta_0 + \beta_1 LnFDI_{i,t-1} + \beta_2 IFRS(LEVEL)_{i,t} \qquad (3)$$
$$+ \beta_3 GDPGROWTH_{i,t} + \beta_4 Inflation_{i,t} + \beta_5 EXCH_{i,t} + \beta_6 EDU_{i,t} + \beta_7 NODA_{i,t}$$
$$+ \beta_8 Voice_{i,t} + \beta_9 Governance_{i,t} + \beta_{10} Control\ of\ corruption_{i,t} + \beta_{11} GFC_{i,t}$$
$$+ \varepsilon_{i,t}$$

Definition of Variables

This study investigates the relationship between IFRS adoption and FDI inflows. Therefore, the dependent variable of this study is FDI, whereas, the independent variable is IFRS adoption. This study uses the natural logarithm of FDI value (lnFDI) for FDI inflows variable. This study uses the dummy variable equal to 1, if a country has adopted IFRS and 0, otherwise. For further understanding of the effects of IFRS on FDI inflows, this study considers the differences in the level of compliance in Model 3. The score for level of compliance ranges from 0 to 7, (Table 2). In Model 3 the level of compliance score replaces dummy variables in Model 2. In line with Lungu et al. (2017) the score was constructed based on IFRS Foundation's Jurisdictional Profiles (IASB, 2016). As discussed before, Indonesia and Vietnam have not adapted IFRS, however, based on IFRS Foundation's Jurisdictional Profiles, Indonesia has a score of 2 because it has made a public commitment in support of moving towards a set of high quality global accounting standard which is the IFRS. However, Vietnam has a score of zero.

Table 2: IFRS Adoption Scores

Score	Characteristics of IFRS adoption	Brunei	Cambodia	Indonesia	Laos	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam
1	Has the jurisdiction made a public commitment in support of moving towards global standards?	1	1	1	1	1	1	1	1	1	0
2	Has the jurisdiction made a public commitment towards IFRS Standards as that single set of high quality global accounting standards?	1	1	1	1	1	1	1	1	1	0
3	For domestic companies are IFRS Standards REQUIRED or PERMITTED?	0	1	0	1	1	1	1	1	0	0
4	Are IFRS Standards also required or permitted for more than the consolidated financial statements of companies whose securities trade in a public market?	0	1	0	0	1	1	1	1	0	0
5	Are all or some foreign companies whose securities trade in a public market either REQUIRED or PERMITTED to use IFRS Standards in their consolidated financial statements?	0	1	0	0	1	0	1	1	1	0
6	Are IFRS Standards incorporated into law or regulations?	0	1	0	0	1	1	1	0	0	0

7	Has the jurisdiction adopted the IFRS for SMEs Standard for at least some SMEs?	0	1	0	0	1	1	1	1	0	0
Total		**2**	**7**	**2**	**3**	**7**	**6**	**7**	**6**	**3**	**0**

As discussed before, this study applied a benchmark model and consider the appropriate control variables. Based on Gordon et al. (2012), this study used GDP Growth, Annual year-end Exchange rates, Education level, Net official development assistance and official aid received, Voice and Accountability, Governance Effectiveness and Control of Corruption. As well as, based on past studies FDI has direct relationship between inflation and economic growth (Saleem, Zahid, Shoaib, Mohamood, & Nayab 2013), hence, inflation also considered as control variable. This study also considered Global Financial Crisis as control variables. Financial crisis affects directly the level of FDI (Dornean, Işan & Oanea 2012). Table 3 shows the variables which are used in the equation models, as well as, variable definitions, measurements and data sources.

Table 3: Study's Variables, Measurements and Data Collection Sources

Variables	Measurements	Data Collection Sources
LnFDI	Natural logarithm of foreign direct investment inflow data in current US dollars.	World Development Indicator (WDI) by World Bank
IFRS(DUMMY)	Dummy variable equal to 1, if a country has adopted IFRS; 0, otherwise.	The IASB's webpage (http://www.ifrs.org/Use-around-the-world/Pages/ Jurisdiction-profiles.aspx)
IFRS(LEVEL)	A score measured on a 0–6 scale (Table 2)	based on characteristics defined by IASB (2016)
GDPGROWTH	Natural Logarithm of GDP growth measured in current US dollar	World Development Indicator (WDI) by World Bank
Inflation	Natural Logarithm of Inflation, GDP deflator	World Development Indicator (WDI) by World Bank
EXCH	Annual year – end exchange rates	World Development Indicator (WDI) by World Bank
EDU	Education level	World Development Indicator (WDI) by World Bank
NODA and OAR	Natural Logarithm of Net official development assistance and official aid received (current US$)	World Development Indicator (WDI) by World Bank
Voice and Accountability	Reflects perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media	The Worldwide Governance Indicators (WGI)
Governance Effectiveness	Reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the	The Worldwide Governance Indicators (WGI)

	government's commitment to such policies.	
Control of Corruption	Reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.	The Worldwide Governance Indicators (WGI)
GFC	Global Financial Crisis, define the global financial crisis as year 2008 and 2009. GFC is equal to d2008 plus d2009	Global Financial Crisis, 2008 and 2009

Each ASEAN country has different starting date of IFRS compliance (IFRS Foundation's Jurisdictional Profiles (IASB, 2016)), therefore, this study applies dummy and level scores based on different starting dates for each countries. Table 4 presents the starting date of IFRS compliance in ASEAN countries.

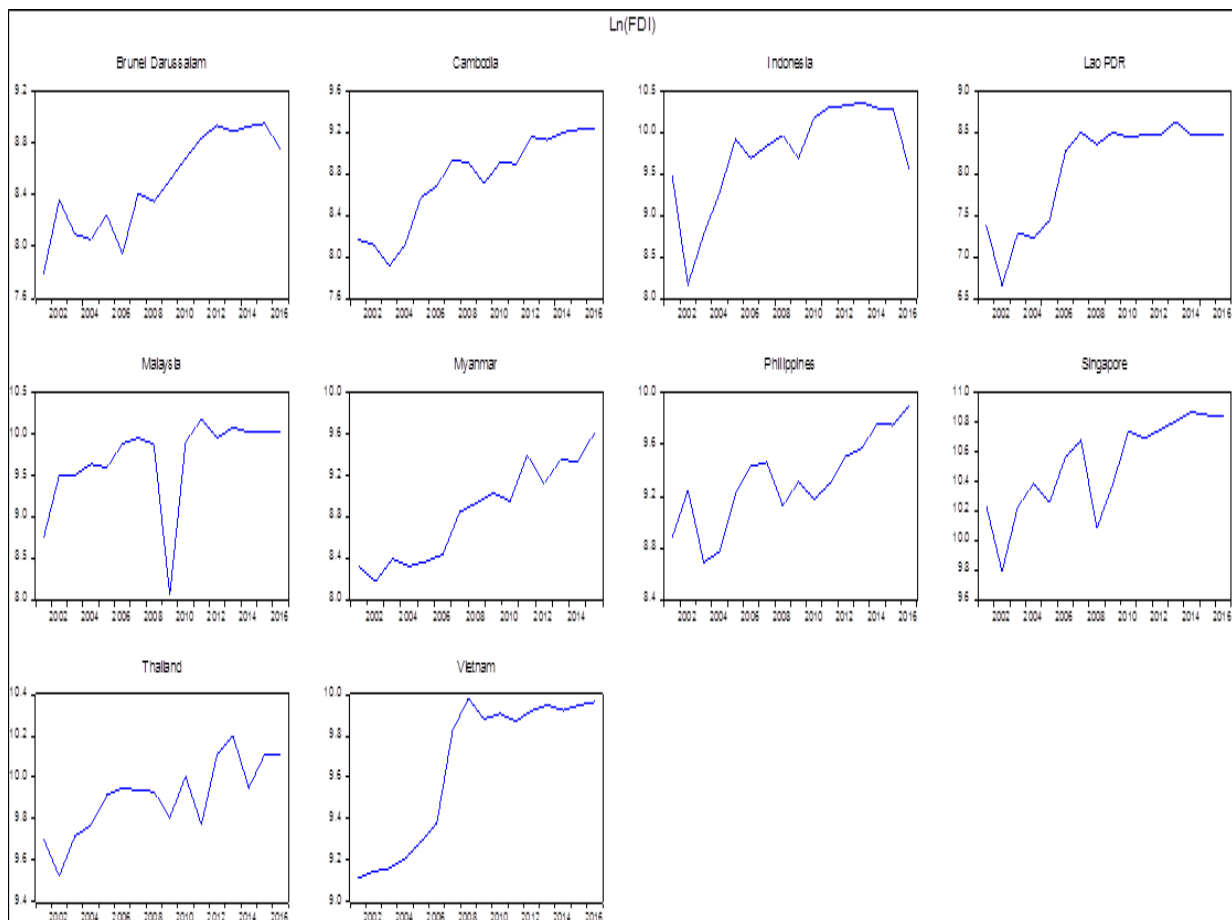**Table 4. The IFRS Adoption Date of ASEAN Countries**

ASEAN Countries	Year of IFRS adoption
Brunei Darussalam	2014
Cambodia	2012
Indonesia	Has not adopted (public commitment in support of moving towards IFRS from 2012)
Laos	2014
Malaysia	2012
Myanmar	2011
Philippines	2005
Singapore	2010
Thailand	2011
Vietnam	Has not adopted

Source: Information is synthesized and disclosed for each country from the IASB's webpage

Sample Selection
This study uses South East Asian Nations (ASEAN) as sample. The ASEAN was established in 1967 with founding members made up of Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore and Thailand. In the late 1990s Vietnam, Laos, Cambodia and Myanmar joined ASEAN. This study focuses on ASEAN because, it is observed that the ASEAN's economic growth has been very impressive over recent years. The overall score of ASEAN economic growth has increased by 98 percent from 2012 to 2016 (Heritage Foundation reports), a record that is unique and has not been observed in other regions. In addition, based on Figure 1, FDI of ASEAN has increased by 81 percent from 2012 to 2016. As well as, in 2016 ASEAN regional expansion by multinational firms has resulted in inflows of US$120 billion, representing almost 16% of world FDI among developing countries in 2015 (ASEAN 2017). Moreover, ASEAN consist of different stages of economic freedom, which based on Sovbetov and Moussa (2017) is the main factor for attracting foreign investors. Therefore, ASEAN countries provide a different setting to examine the issue of IFRS adoption and FDI. Data for this study was collected from 2001 to 2016. This study uses 2001 as the starting year for data collection as it is the year that FDI data became available in database for all ASEAN countries. Therefore, the sample for examining equation models consist of 10 ASEAN countries and a total of 160 observations.

Figure 1: FDI inflow in ASEAN countries (1981-2016)

EMPIRICAL RESULTS

Table 5 provides descriptive statistics of the data. The assumption behind the descriptive statistics in Table 5 is that the data are normally distributed and a regression model based on those variables is valid. The total sample of the study consists of 160 country-year observations (10 ASEAN countries and year from 2001 until 2016). Multicollinearity is a statistical phenomenon in which two or more predictor variables in a multiple regression model are highly correlated (Sekaran & Bougie 2010). The correlation values less than 0.8 shows that there is no collinearity issue among variables (Gujarati 2003). Based on Mulricollinearity test, it can be concluded that there is no serious multicollinearity issue since the correlation between variables are less than 0.8.

Table 5: Descriptive Statistic

	Mean	Median	Maximum	Minimum	Std.Dev.	Observation
LN_FDI_	9.2872	9.3802	10.8692	6.6485	0.8460	160
IFRS (DUMMY)	0.2704	0	1	0	0.4456	160
IFRS (LEVEL)	1.8805	0	7	0	2.8090	160
GDP GROWTH	2.1591	2.4940	3.4182	-1.6568	1.0535	160
EDUCATION	2.8344	2.8378	3.9655	0.8640	0.7084	160
EXCHANGE	4.9113	3.7940	9.9958	0.2228	3.7146	160

CONTROL CORP GOVERNANCE	0.8781	0.7349	2.3256	0.0295	0.5857	160
EFF	0.8106	0.8377	2.4370	0.0016	0.6208	160
INFLATION	1.8011	2.1142	4.4192	-3.7888	1.5272	160
NODA AND OAR	16.1157	20.1366	22.8554	-16.3285	9.1464	160
VOICE & ACC	0.8429	0.7307	2.2333	0.0010	0.6201	160
GFC	0.1258	0	1	0	0.3327	160

Some relationship are dynamic and panel data allows us to understand adjustment. Dynamic relationship means dependent variable does not necessarily respond immediately to changes in independent variable. The main issue in dynamic panel are endogeneity and method of estimation (Bogliacino, Piva & Vivarelli 2012). While Arellano and Bond (1991) introduced the Difference-GMM as an appropriate estimator for solving the endogeneity, Blundell and Bond (1998) improved the Difference-GMM and developing the System-GMM as a more appropriate estimator in the case of Endogeneity. However, the recent studies found that both these difference-GMM and System-GMM perform poorly when the panel is characterized by a low number of cross-sections (Bogliacino et al. 2012; Bruno 2005). Since sample of this study included a small number of Cross-Section (ASEAN 10), therefore this study used the proposed Least Squares Dummy Variable Bias-Corrected (LSDVC) estimator. Table 1, also shows the models with lag for dependent variable, FDI.

First of all, the data which is used for Model (1) is analyzed and after that Model (2) and (3) using a dynamic LSDVC. As mentioned before, the difference between Model (1) and two other models (Model (2) and (3)) is IFRS as independent variable. As can be seen in Table 6 the results of Model (1) illustrate that the GDP GROWTH is positively associated with FDI inflows (at 0.05). This result is consistent with Gordon et al. (2012) and Lungu et al. (2017) findings. Other control variables such as Exchange, Education and GFC are found to significantly influence FDI inflows when IFRS adoption impact is not considered. It is worth noted that, GFC is negatively associated with FDI inflows (at 0.10). However other control variables do not have associated with FDI inflows.

Table 6 also illustrates results of Model (2) and (3) which are consider IFRS adoption with the purpose of testing the Hypothesis of this study. This study believe that by adopting IFRS, countries will signal to other countries that firms within these countries are now following a global accounting standards and consequently affect foreign investors' decision. For testing of hypothesis the regression model first used dummy variable for IFRS adoption (Model 2) followed by another run with adoption level (Model 3). The results illustrated in Table 6, Model 2 support a positive association of IFRS adoption (dummy variables) and FDI inflows at 0.05. This result is consistent with Gordon et al. (2012) and Lungu et al. (2017) findings. Consequently, this result means that adopting IFRS with each ASEAN countries has an impact of 18.5 % on the increase of FDI in flows. Therefore, this study supports the choice of IFRS adoption for ASEAN countries as a measure to increase its investment inflows. In terms of control variables as can be seen in Table 7, GDP Growth, Education, Governance Effectiveness and Inflation have positive association with FDI inflows when IFRS adoption is considered.

Model 3 of Table 7 shows a positive association of IFRS adoption (Level of compliance) with FDI inflows at 0.05. This result is also consistent with Lungu et al. (2017) findings. This result shows that the level of compliance with IFRS is an important driver for foreign investors and may leads to reduce future investment risks. Consequently, this result means that an increase in the level of IFRS adoption in ASEAN countries which adopt IFRS, has an impact of 3.3% on the increase of FDI inflows. Therefore, the hypothesis of this study is accepted. As well as, same with model 2, GDP Growth, Education, Governance

Effectiveness and Inflation have positive association with FDI inflows when IFRS adoption is considered. It is worth noted that, the Governance effectiveness positively and significantly associated with FDI inflows at 0.05 in both models. Therefore, as past studies mentioned, the effect of IFRS adoption on FDI inflows may increase with governance effectiveness.

Table 6: Results of LSDVC Estimator

Variables		Model 1	Model 2	Model 3
LnFDI (L1)		0.541***(0.080)	0.501***(0.079)	0.472***(0.081)
IFRS(DUMMY)		---	0.185**(0.072)	---
IFRS(LEVEL)		---	---	0.033**(0.013)
GDP GROWTH		0.105***(0.040)	0.115***(0.038)	0.109***(0.039)
EXCHANGE		0.061(0.050)	0.033(0.050)	0.018(0.052)
EDUCATION		0.508***(0.102)	0.477***(0.096)	0.502***(0.097)
GOVERNANCE FFECTIVENESS		0.347*(0.215)	0.405**(0.053)	0.343*(0.209)
CONTROL OF CORUPTION		-0.007(0.195)	-0.012(0.185)	-0.049(0.188)
INFLATION		0.038(0.025)	0.053**(0.025)	0.041*(0.024)
NODA		-0.004(0.003)	-0.004(0.003)	-0.003(0.003)
VOICE	AND	-0.061(0.152)	-0.132(0.148)	-0.159(0.154)
ACCOUNTABILITY				
GFC		-0.141*(0.085)	-0.851(0.082)	-0.107(0.083)
Observations		160	160	160

Standard errors in parentheses. LnFDI is the dependent variable. The regressions are run first as baseline regression with/without IFRS variables on the entire sample. The second model run with considering IFRS as DUMMY and third model run with considering Level of IFRS compliance. The regression includes all independent variables from the baseline specifications, together with a constant term. Please refer to Table 4 for detailed measurement. The variables listed also are defined in Table 4.
* Significance at the 0.10 level. ** Significance at the 0.05 level. *** Significance at the 0.01 level

CONCLUSION

The objective of this study was to explore the relationship between IFRS adoption and FDI inflows in the context of ASEAN 10 for the period 2001– 2016. Hence, this study have implemented the LSDVC dynamic regression to test integrating properties of variables. This study have implemented LSDVC dynamic regression to solve endogeneity problem between variables.

Results of LSDVC dynamic regression show that positive significant relationship between IFRS (DUMMY or LEVEL) and FDI inflows at 5%, indicating that IFRS adoption strongly improves the FDI inflows. The estimations exposes also the positive and significant relationship between FDI inflows and GDP Growth, Education, Governance Effectiveness and inflation when IFRS (DUMMY OR LEVEL) is considered. Indeed, the results of this study show that IFRS adoption attracts more foreign investments into a country. The results also show that the level of compliance with IFRS is an important driver for foreign investors even for Indonesia which had not adopt IFRS but is taking steps to comply with IFRS.

As with all empirical studies, this study has limitation. There are empirical studies in literature which examined the determinants of FDI inflows, however, this study was not able to utilize all of those determinants as control variables. Therefore, this study suggest that for future study more control variables are taken into consideration. Additionally this study suggests that future studies consider the role of information asymmetry on relationship between IFRS adoption and FDI inflows. Pervious empirical studies mentioned that IFRS adoption leads to information asymmetry improvement, however, there are very limited studies which tested the effect of information asymmetry on relationship between IFRS adoption and FDI inflows. To the best of our knowledge, there is no study which examined the relationship between information asymmetry and FDI inflows.

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