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Determinants of economic freedom of the Association of Southeast Asian Nation economic community

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ABSTRACT

One of the determinants of the well-being of people across the world is economic freedom. It is the freedom to choose the ways to produce, sell, and use your private resources, while respecting rights of the other to practice the same. The primordial intention of the study was to investigate the factors affecting economic freedom in the Association of Southeast Asian Nations (ASEAN) Economic Community. Human Development Index (HDI), Corruption Perceptions Index (CPI) and GDP per capita are dimensions considered to characterize the level of a country's economic freedom. Trend performance of AEC in these indexes was also determined. The empirical estimate was based on a panel dataset covering 6 member-countries of the ASEAN Economic Community from 2001 to 2010. The model was estimated through Ordinary Least Squares (OLS) multiple linear regression analysis. For the trend performance of the indexes, Singapore found to have a remarkable performance. The empirical result strongly suggests that CPI and GDP per capita foster economic freedom. For every 1% decrease in CPI would lead to an increase in economic freedom index by.121 % and for every 1% increase in GDP per capita, EFI will increase by .019%.

***Keywords**:* AEC, Index, Linear Regression, Ordinary Least Squares.

INTRODUCTION

Economic freedom is one of the common economic goals pursued by countries around the world. Countries become wealthy when economic freedom exists. Miller and Kim (2015) explains that nations with higher degrees of economic freedom flourish because they capitalize more fully on the ability of the free-

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market system not only to generate, but also to reinforce dynamic growth through efficient resource allocation, value creation, and innovation.

Economists from the time of Adam Smith (1776-1937) have stated the significance of economic freedom to economic growth. In his book "An Inquiry Into the Nature and Causes of the Wealth of the Nations", Adam Smith explained the concept of invisible hand and how this boosts the wealth of nations. The central ingredients of economic progress include the freedom to select and supply resources, indulge in business, trade with others, and protect property rights (North and Thomas, 1973). Free trade was advocated by David Ricardo (1821-1912) as a means of generating economic growth. Milton Friedman believed that among the other methods controlling economic activity, economic freedom is much more productive that's why only free societies have ascended and persisted (Madan, 2002). Robert Lawson, one of the authors of the economic freedom of the world also expands the importance of economic freedom. He argued of the relationship of economic freedom to the performance of the country in terms a number of indicators (Gwartney & Lawson, 2014).

Scholarly researches on the correlation of economic freedom index to various measures of the society's well-being such as higher incomes, economic growth, income equality, gender equality, life expectancy, and so on has been and continuously being done. In addition to those, this study is conducted to capture the determinants of economic freedom to different developmental indicators specifically on the ASEAN Economic Community.

Human development, government and economic growth are few of the several and very diverse dimensions which based on literature depict the level of a country's economic freedom. This paper aimed to show these three essential directions, the specific indicators that measure them are Human Development Index (HDI), Corruption Perceptions Index (CPI) and GDP per capita. The empirical estimate is based on a panel dataset covering 6 member-countries of the ASEAN Economic Community from 2001 to 2010. The primordial intention of this paper was to investigate the determinants of economic freedom. It also reviewed the trend performance of EFI, HDI, and CPI and GDP per capita of the countries under study.

The present study is deemed significant because of the emergence and potential contributions of economic freedom towards growth and development in ASEAN countries. The findings of the study would be vital inputs to the country's policy makers and the future researchers to understand the roles played by the different

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dimensions identified to the country's economic freedom thereby creating an enabling environment for development and international competitiveness.

METHOD

Data for the study were obtained from reports available, accessible at the online statistical sites. On account of data incompleteness, it was found necessary to interpolate using data contained within them using averaging. In as much as the study aimed to include all member-countries of the ASEAN Economic Community in the inferential analysis, some of the data are not available in countries of Cambodia, Laos, Brunei and Myanmar. Thus, the study only included Philippines, Singapore, Malaysia, Indonesia, Vietnam and Thailand for the period 2001 to 2010. But in the descriptive analysis, all countries are included as long as the figures are available.

The study obtained data of EFI released by Economic Freedom of the World index produced by Gwartney and Lawson in association with Fraser Institute. It uses third-party information from major international sources such as International Monetary Fund (IMF), World Bank and World Economic Forum amongst others. It tests economic freedom along five parameters, which are: Size of Government: Expenditures, Taxes, and Enterprises; Legal Structure and Security of Property Rights; Access to Sound Money; Freedom to Trade Internationally; Regulation of Credit, Labor, and Business (Gwartney and Lawson, 2014).

The EFI score released by the economic freedom of the world are expressed in a scale of 1 to 10 and the Heritage Foundation expressed it in a scale of 1 to 100 which has the following description: free (80-100), mostly free (70.0-79.9), moderately free (60.0-69.9), mostly unfree (50.0-59.9), and repressed (0-49.9).
The HDI used in the study are the data released by United Nations Development Program (UNDP). The HDI is a combined index measuring average accomplishment in three basic dimensions of human development to name: a long and healthy life, knowledge and a decent standard of living. The index is expressed in values from 0 to 1.

For CPI, data was sourced from Transparency International. The Corruption Perceptions Index ranks countries/territories based on how corrupt a country's public sector is perceived to be. It is a composite index, drawing on corruption-related data from expert and business surveys carried out by a variety of independent and reputable institutions (Transparency International). The index ranges between 0 (highly corrupt) and 10 (very clean).

The GDP per Capita released by World Bank (2010) are used to represent economic growth. World Bank defines GDP per capita as gross domestic product divided by midyear population. It is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars (World Bank, 2010).

The following model drawn upon the previous studies outlined above, examines the relation of the different indexes to economic freedom. ECI, GDP per capita and CPI are expressed in logarithms to satisfy the assumption of normality. The model is outlined as:

Log EC = α + β1. HDI + β2. Log GDP - β3. Log CPI + μi (μi=error term), where EC = economic freedom index ; α = constant;

HDI = Human Development Index. Economic freedom and HDI have a positive direct relationship. GDP = lagged logarithm of per capita GDP. Studies of Barro (1996), De Vanssay and Spindler (1994), Johnson and Sheehy (1995), Scully (1992), and DeHaan and Diermann (1998), all found a positive correlation between economic freedom and economic growth. CPI= Corruption Perceptions Index. The a priori notion between Economic Freedom and CPI is a strong negative correlation according to Ali and Isse (2003) and Sandholtz and Koetzle (2000), Carden and Verdon (2010).

The model was estimated through Ordinary Least Squares (OLS) multiple linear regression analysis using SPSS as a software. Before the estimation, assumptions for OLS were made such as linearity, normality, multi-collinearity, homoscedasticity and autocorrelation among others.

RESULTS AND DISCUSSION

Presented below are the results drawn from the descriptive and inferential analysis employed in the study. The figures depict the ASEAN countries trend in economic freedom index and the state of its indicators (HDI, CPI and GDP

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per capita) from year 2001 to 2010. It is also presented in this part the estimation of the relationship of the three indexes perceived to influence economic freedom.

Trends of EFI, HDI, CPI and GDP per Capita

Presented in Figure 1 is the economic freedom index trend of ASEAN countries from 2001 to 2010. Other four members of the ASEAN community were excluded because of the absence of data. Using the Heritage Foundation scale description, among the ASEAN countries, Singapore is the only country described as free. In the latest (2013-2014) released of the economic freedom index by the Heritage Foundation, it ranked 2nd to Hong Kong with the freest economy in the world. Philippines, Malaysia, Thailand and Vietnam's economic freedom indexes are described as moderately free while Myanmar lagged behind the other countries with repressed economic freedom.

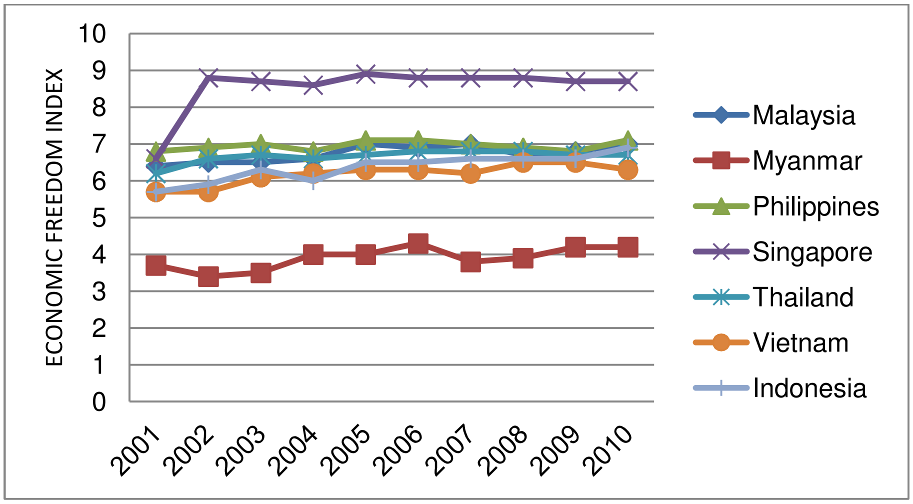

Fig 1. Economic Freedom Index, ASEAN Economic Community, 2001-2010

Fig. 2 depicts the HDI trend of ASEAN countries from 2001 to 2010 with indexes expressed from 0 to 1. The HDI trend of countries is more or less the same for the 10-year period observation. Meanwhile, Singapore posted the highest score followed by Brunei and Malaysia. Indonesia, Vietnam and

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Philippines are relatively having the same performance while Myanmar comes last among the countries.

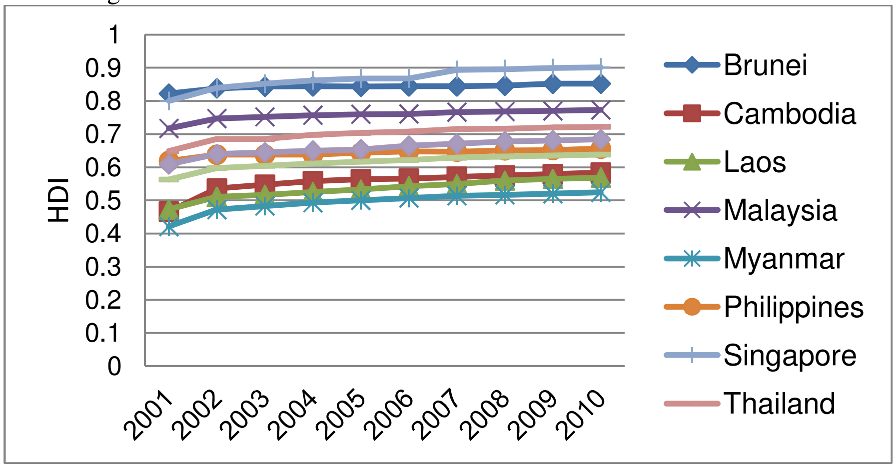

Figure 2. Human Development Index, ASEAN Economic Community, 2001-2010

Shown in Figure 3 is the CPI trend of the ASEAN countries. The CPI ranges between 0 (highly corrupt) and 10 (very clean). Evident from the figure, Singapore tagged the cleanest in terms of corruption. Further, in the 2010 CPI ranking it is first as the least corrupt country in the world overlapping its 4th and 3rd rank in 2008 and 2009, respectively. Meanwhile, Malaysia comes next with an average of nearly 5 index score and Thailand with 3.44 average indexes. On the other hand, Myanmar posted the most corrupt among the countries with an average index score of nearly 2 in the periods under observation.

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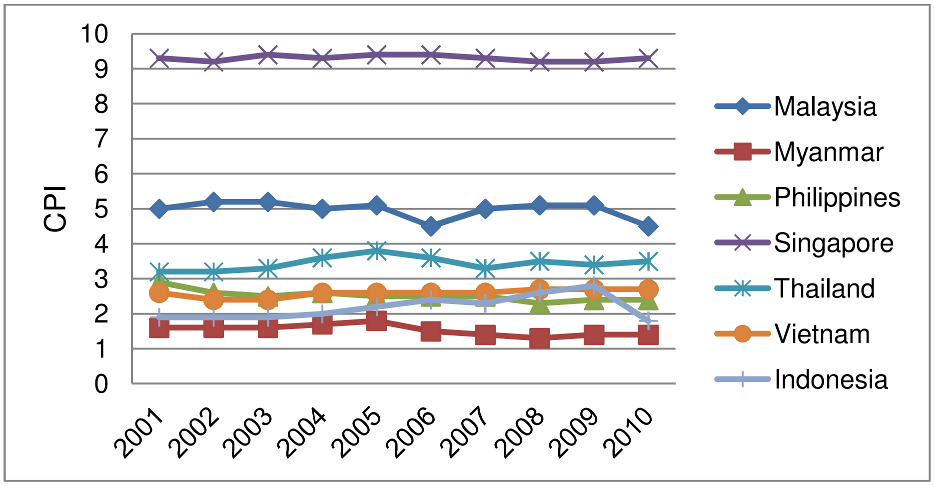

Figure 3. Corruption Perception Index, ASEAN Economic Community, 2001-2010

Figure 4 displays the GDP per Capita trend of ASEAN countries. Singapore ranks first among the countries in terms of GDP per capita performance which shows an increasing trend from 2001 to 2010 followed by Brunei but the latter shows a noticeable decline in 2009. This could be attributed to the global recession that hit the economies that year. Except for Malaysia and Thailand, the rest of the countries performed in the lower bottom.

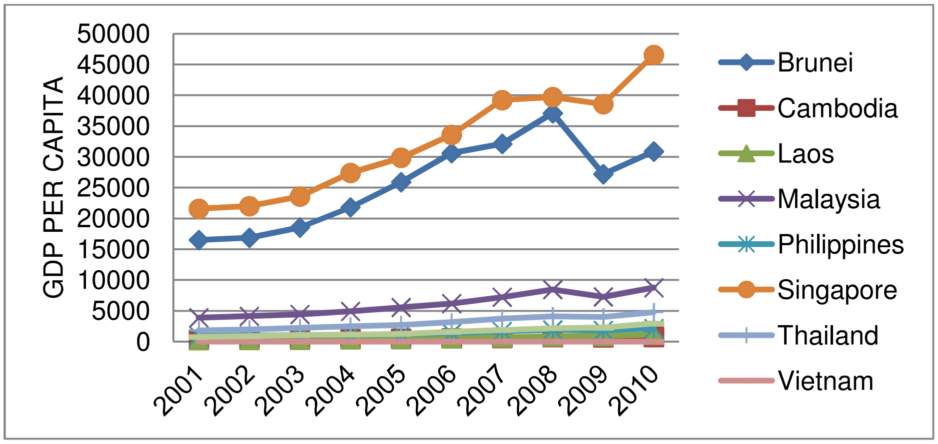

Figure 4. GDP per Capita, ASEAN Economic Society, 2001-2010

Estimation Result

Regression estimation result showed that there is a statistically significant relationship between the dependent variable and the set of independent variables. This means that HDI, CPI and GDP per capita explained the deviations in economic freedom index. The R^2 value for the three variable model is 0.714, which means that the three independent variables in the regression collectively explain 71.4% of the variance in the dependent variable. This relationship is described as very strong. Further, the remaining 28.6% is explained by other factors not included in the model.

GDP and CPI are found to be significant at 90% (p=.089<.10) and 95% (p=.005<.05) level, respectively. This rejects the null hypothesis that regression coefficients for the two variables are zero. The slope coefficient of CPI is found to be -.121. The results implied that for every 1% decrease in CPI would lead to an increase in economic freedom index by.121 % holding other things constant. Further, GDP's slope coefficient is .019 which is interpreted as for every 1% increase in GDP per capita, ECI will increase by .019% holding other things constant. The estimated model is presented as:

$$\text{Log ECI} = .661 + .019 \text{ Log GDP} -.121\text{-Log CPI}$$

The positive relation between economic growth measured in GDP per Capita and economic freedom is consistent with several empirical studies to include Barro (1996), De Vanssay and Spindler (1994), Johnson and Sheehy (1995),

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Scully and Slottje (1992), DeHaan and Diermann (1998), and Baumol (2002) among others. Baumol (2002) posits that, in societies where the rule of law succeeds, market economic system served as a machine for powerful innovation which is an essential force behind growth processes. Additionally, when there is greater freedom, entrepreneurship and other economic activities are promoted thereby increasing the economy's output of goods and services counted in GDP.

The negative and significant relationship between CPI and ECI is fairly consistent with studies of Ali and Isse (2003), Sandholtz and Koetzle (2000), and Carden and Verdon (2010), which stated a strong negative relation between the two variables. This would suggest that economic freedom could be one of the main ingredients for corruption control. Following Kumar (2011) analysis that states economic freedom is the process of removing many of the unnecessary regulations and laws that restrict trade, setting up of businesses and allowing for more government intervention. In the process of removing such regulations, the legitimate authority is actually removing the pockets for rent-seeking and, thereby, for corruption. Expectedly, economic freedom and corruption will have an inverse relationship.

CONCLUSIONS

In the ASEAN Economic Community, Singapore found to have the remarkable performance in terms of the EFI, HDI, CPI, and GDP per Capita while Myanmar consistently comes least. Singapore's significant performance is reliable with the world rankings on the different development and economic indicators making it as a highly developed trade-oriented market economy.

Given the foregoing findings, this paper found that CPI and GDP per capita are determinants of economic freedom. Economic freedom and CPI are inversely related and GDP and CPI are found to have positive relationship. Simultaneously, for a country to foster economic freedom, which is said to be one measure for a country to become wealthy, corruption must be minimized and GDP per capita should be improved. Policies and programs should geared towards attaining the goals on minimizing if not eradicate corruption. And GDP as a measure of the economic well-being of the country should be increased relative to the population by considering factors to boost production of goods and services in the economy.

Future studies with inclusion of other countries in the ASEAN Economic Community given the availability of data are recommended to provide the breadth of experience needed to assess the determinants of economic freedom.

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