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FINANCIAL SYSTEM AND ECONOMIC GROWTH OF EMERGING MARKET COUNTRIES IN ASEAN

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Abstract

Financial system is one of key factor to economic sustainability. The importance of the functioning financial sector is used for economic development and transaction to achieve the desired growth rate. This research is aimed to explain the effect of financial system toward the economic growth in emerging market countries in ASEAN, including: Indonesia, Malaysia, Philippiness and Thailand. The method used in this research is panel data regression analysis. The estimation results showing that financial system represented as the independent variables, consist of credit domestic to sector private (CDR), gross fixed capital formation (GFCF), and inflation (INF), simultaneously affecting GDP in significant way at probability error level (α=5%). In other hand, in partial test, all independent variables effect GDP significantly at probability error level (α=5%).

Keywords: Financial System, economic growth, panel data regression

INTRODUCTION

Financial System has important role to economic sustainability, one of the role is to increase economic growth rate. Based on Bachelier (1930) argues in [1] that change in capital asset and stock price affect financial asset value. In line with that, [2] explains that financial system has been integrated into macroeconomics aggregately in the long term, it will affect growth rate of a country. Besides that, Neave divide financial system component into two branches based on its institutional frame, they are banking sector and stock market.

Several empirical studies doing research the relationship between financial system and growth rate. Some of the studies are : [3] about financial crisis which lead into increment of credit risk can affect the performance of financial and banking sector which has negative effect upon economic growth. [4] shows there is a relationship between financial growth through approach of banking sector and economic growth. [5] explains again that the primary objective of financial system in an economic system is to make sure long term economic growth is efficiently funded through economic funding. There is a difference of financial system components between developed countries and emerging countries. The developed countries mainly focus on capital market financial within financial system, while emerging countries focus on banking sector.

Our study examining the relationship between financial system and economic growth emerging market countries in ASEAN. Following statement of [6] which describe the relation between financial and banking sector and the other determinants of economic growth, such as inflation, openness, and capital stock. We will use indicators to assess of the financial system from banking sector and capital market. For the analysis we have selected the indicators, the characterizing variabel growth is using GDP.

METHODS

In this research we make an accent on how the financial system affecting an economic growth. The quantify the links between financial system and economic growth emerging market countries in ASEAN, our dataset is composed of several variable from four country, including Indonesia, Malaysia, Philippiness and Thailand. The main method of the analysis is panel data regression which afforded to answer how the financial system capable influence on economic growth. [7] define panel data regression has many advantages cause it using mixed time series and cross section data. Data that we used are domestic credit to private sector (CDR), gross fixed capital formation (GFCF) and inflation (INF) from 1990 to 2016. There are four cross-sectional units and 27 time periods. So, we have 108 observations. Our regression equation can be described the following form:

$$GDP_{i,t} = \alpha_{0i} + \alpha_1 CDR_{i,t} + \alpha_2 GFCF_{i,t} + \alpha_4 INF_{i,t} + \varepsilon_{i,t} \quad (1)$$

where symbol i and t represent respectively the country and time period, GDP is the dependent variable of economic growth, CDR is credit domestic to private sector, GFCF is gross fixed capital formation, INF is inflation and ε is error term.

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FINDINGS AND ARGUMENT

In a firts step, we estimate the model regression with chow and hausman test. After estimating the model, we find that the equation model using fixed effect model approach. The achieved assumption for using that approach is found on the difference of constant value within objects with same regressor coefficient. (see Table 1)

Table 1. Result of estimation panel data regression

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
C	3.873992	1.469134	2.636922	0.0097
CDR	-0.064820	0.013856	-4.678141	0.0000
GFCF	0.269933	0.038575	6.997643	0.000
INF	-0.199020	0.033470	-5.946253	0.000
Indonesia	-1.780641			
Malaysia	2.623668			
Philippiness	-1.873628			
Thailand	1.030601			

Second, we are able to adjust intercept value individually (see Table 2). The different of intercept for each individu show that the value is equal to dependent variable value obtained from independent variable value is equal to 0. That's mean, economic growth value of each country is achieved without involving by financial system equal the intercept value.

Table 2. Country Intercept Value

Country	Value
Indonesia	2.093351
Malaysia	6.497660
Philippiness	2.00364
Thailand	4.904593

Third, we finish the result by examining the model with the commounly used of diagnostic test. We use t-test, F-test and R-squared test with error probability 5%. Based on the estimation which is applied to research model, the result show R-squared value is 0,547926. The number means the total of economic growth variation (GDP) on ASEAN emerging market countries can be explained by the independent variables of this research, which is consist of private sector domestic credit (CDR), Gross Fixed Capital Formation (GFCF), and inflation rate (INF) equal to 54,79%, and the rest is valued at 45,21% is explained by other variables outside the research model. In the next step, we show the result of simultaneous test (F-test) it is discovered that at the broad scale, independent variable give significant effect to economic growth equal to F-statistic probability 0,0000< 0,05 (see Tabel 3)

Table 3. Diagnostic test

	Value
F-statistic	20.40244
Prob(F-statistic)	0.000000
R-squared	0.547926

Meanwhile, according to individual test (t-test), each individual variable affect economic growth significantly (see Table 1). Here are the details. CDR negatively affect to GDP equals t-statistics prob 0.000 <0,05. The growth of credit sector is able to strengthen bank sector, but on the other hand also creating risk that affect growth rate (Zaidi and Fisher, 2010; [8]). GFCF possitively affect to GDP equals t-statistics prob. 0.000 < 0.05. The accumulation of capital can create high value of investment in open economic condition of emerging market country, the increase of investment increase the chance of improvement in growth rate through productive economic activities and infrastructure improvement. Allocating the capital efficiently enabling an increament capital return rate and gaining advantage from managing the liquidity risk [9]. INF negatively affect to GDP equals t-statistic prob. 0.000 < 0.05. [10] sargue that the negative effect on inflation toward economic growth. This is happen because the increase of goods price lower purchasing ability of the peoples, it also decreasing the production of goods

Conclusion

The goal of this research is to review the development of financial and economic growth of emerging market countries in ASEAN. Empirical analysis is based on the year of 1990 to 2016 using regression analysis of panel data. We intrepreted financial system as two proxies, they are domestic credit to private sector as a variable for banking sector and gross fixed capital formation as variable for financial sector and also inflation as determinant of macroeconomics variable. The result that we found is the difference within coefficient value of each country. It show that economic growth value is achieved without the involvement of financial system. However, some financial system indicators of banking sector, whether they are financial sector and determinant of macroeconomics variable, as a whole give positive and significant effect toward economic growth.

Next assessment is done partially. The indicator of bangking sector is reviewed from the availability of domestic credit to private sector which lead into negative effect toward economic growth. This reversed relationship is caused by the high credit rate caused systemic risk to banking sector. In contrast, financial indicator giving positive effect to economic growth. These are triggered by the role of capital formation which able to increase investment that can be allocated to more productive economic activities and infrastructure improvement that create higher growth rate. Inflation affect negatively toward economic growth. Inflation control is one of the goal of monetary policy, even in the literature mentioned that inflation has negative effect toward economic growth of a country. Inflation decrease financial asset ratio, it also cause loss on capital availability.

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