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Non-Linear Impact of Domestic Credit on Economic Growth in Southeast Asia Countries

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ABSTRACT
This study aims to determine and analyze (1) the non-linear effect of domestic credit variables on economic growth in Southeast Asian countries. (2) the non-linear influence of domestic credit by banks on economic growth in Southeast Asian countries. This study uses savings, stock market capitalization, trade openness, inflation and human development index as control variables. The population in this study is a Southeast Asian country. This study uses a time series for the period 2009-2017. The analytical technique used is the Generalized Method of Moments (GMM) method using the Stata 14 software tool. The results showed that (1) economic growth (PEK) was positively influenced by domestic credit (KDK) and negatively related to the square of domestic credit (KDK2) at a significance level of 5%. and economic growth. The increase in domestic credit (KDK) will lead to increased economic growth (PEK) in Southeast Asian countries. However, the positive relationship between domestic credit (KDK) and economic growth (PEK) can only occur up to the optimal domestic credit threshold (KDK*). When the domestic credit value exceeds this optimal threshold, the correlation between domestic credit (KDK) and economic growth (PEK) becomes negative. The results show the optimal threshold (KDK*) is 87.1%. From these results it is known that if the domestic credit value is 87.1%, then economic growth in Southeast Asian countries will reach its maximum condition. (2) economic growth (PEK) is positively influenced by domestic credit by banks (KDB) and negatively related to the square of domestic credit by banks (KDB2), but statistically does not have a significant relationship. The results of this study have not been able to show a non-linear relationship between domestic credit by banks and economic growth in Southeast Asian countries.

Keywords: *Generalized Method of Moment, Non-linear, Domestic Credit, Economic Growth*

1. INTRODUCTION

One of the factors that support the economic growth of a country is the development of financial development. In research conducted it is known that the financial system as a support for economic growth. Instruments of financial development include domestic credit, savings and economic openness [1].

Domestic credit reflects the financial development of a country and contributes to efficient investment allocation, increased investment and most notably economic improvement [2]. It can be concluded that a country's economy will develop better than other countries when it is accompanied by an increase in domestic credit [3]. However, different things are described [4] where domestic credit does not always have a positive impact on economic growth.

In research on the causal relationship between bank credit and economic growth in Cameroon concluded that there is a unidirectional causality relationship from bank credit to economic growth [3]. This research also implies that monetary policy that supports bank credit will definitely encourage economic development. The same thing is also found in a study conducted regarding bank credit and economic growth [5]. This study shows that credit has a positive impact on economic growth until credit reaches its threshold. long-term bank credit has a positive effect on economic growth.

Savings which is one of the financial instruments will also have an influence on economic growth. In research on financial development and economic growth explained that savings support economic growth [6]. In research on financial markets and growth explained that financial intermediation can affect economic growth by acting on the level of savings, on the part of the savings distributed In this study, savings are represented by gross saving [4]. Gross saving is calculated from gross national income minus total consumption, plus net transfers. Measured by percent of gross domestic product (% of GDP).

The stock market is known to play a very important role in promoting economic growth by increasing the efficient mobilization of savings for investment and facilitating capital inflows. They are important for reducing investor risk and for changing the long-term savings-to-investment ratio, increasing the efficiency of financial intermediaries, increasing the marginal productivity of capital, and increasing the saving rate. A

well-functioning stock market is also expected to increase the efficiency of the business sector by ensuring management oversight and the use of effective corporate controls. In research on the stock market and economic growth shows that the stock market gives positive results to the economic growth of African countries [7]. The capital market is also used on the non-linear relationship between economic growth and financial development. In this study, the capital market is represented by stock market capitalization to GDP with units of percent [8].

In addition to domestic credit, savings and the stock market, economic openness is also often a variable that explains financial developments. In research stated a positive relationship between trade and economic growth [1]. The same thing was also found in research. In this study, economic openness is represented by trade in the form of the number of exports and imports of goods and services. It is measured by the percent of gross domestic product (% of GDP) [6].

In research on the non-linear relationship between economic growth and financial development made inflation as one of the research variables [8]. In his research, it is known that economic growth is negatively affected by inflation. In research on domestic credit and economic growth in ASEAN countries also includes inflation as one of the research variables [2]. In this study inflation is represented by the consumer price index. The consumer price index is an index that calculates the average price change of a group of goods. and services consumed by households in a certain period of time. Changes in the CPI from time to time describe the rate of increase in prices (inflation) or the rate of decline in prices (deflation) of goods and services. The unit used is percent.

In this study, the authors use data from eight member countries of Southeast Asia (Indonesia, Malaysia, Singapore, Brunei Darussalam, Thailand, the Philippines, Cambodia and Vietnam) and the data period from 2009 to 2017. The model used is dynamic panel data regression with an estimation method. The methods used are Arellano-Bond Generalized Method of Moment (AB-GMM) and Blundell-Bond GMM or known as SYS-GMM. This is done because it pays attention to the spatial aspects between Southeast Asian countries. This estimation method produces parameter estimates that are unbiased, consistent and efficient.

This research also complements research is the first to examine the relationship between domestic credit and growth in ASEAN countries with a non-linear approach [2]. This study further details the research by analyzing and comparing between private sector domestic credit and sub-sections of domestic credit, namely private sector domestic credit sourced from banks and additional savings as a control variable[2].

2. METHODS

This research is classified as descriptive and associative research. Descriptive aims to describe events or events, while associative research is to find out whether or not there is an influence between the independent variable and the dependent variable, where the data used is in the form of numeric data. Associative aims to see the relationship between the variables of domestic credit, savings, trade openness, stock market, inflation and human capital on economic growth.

In analyzing and finding the desired solution to the problem, the technique used in this research is literature study and documentation. Where the data obtained from the documents contained in the World Bank, UNDP and Fred. The data analysis technique in this research is using descriptive analysis. dynamic panel data model, GMM first difference, System Generalized Method of Moments and GMM Specification Test. The statistical test used in this study is the partial test (t-test).

The t-test is a partial test of the coefficients of the independent variables. This test was conducted to see the significant level of the independent variables individually in influencing the dependent variable. The test is carried out by comparing the t-count value in the estimation results with the t-table. If the value of t count t table, then Ho is rejected and H1 is accepted, which means that there is a relationship between the independent variable and the dependent variable. This test can also be done by looking at the p-value of the t-test, if it is below the 5% significance level, there is a relationship between the dependent variable and the independent variable.

The next statistical test is the simultaneous test (F test) using the Wald test. Wald test is done by looking at the significance of prob>chi2. If the value of prob> chi2 is below the 5% significance level, then Ho is rejected and H1 is accepted, which states that the independent variables jointly affect the dependent variable.

3. RESULT AND DISCUSSION

3.1 First hypothesis

Wald test is used to determine the significance of the independent variables together in influencing the dependent variable. Wald test is done by looking at the significance of prob>chi2. If the value of prob> chi2 is below the 5% significance level, then Ho is rejected and

H1 is accepted, which states that the independent variables jointly affect the dependent variable.

Table 1. Wald Test Results Domestic Credit, Savings, Stock Market Capitalization, Trade Openness, Inflation and Human Capital Variables on Economic Growth in Southeast Asian Countries

Wald chi2	=	63.79
Prob> chi2	=	0.0000

From table 1 it can be seen that the value of Prob>chi2 is 0.0000, this value is smaller than 0.005. Based on this, it can be concluded that Ho is rejected and H1 is accepted, meaning that together domestic credit (KDK), savings (TBG), stock market capitalization (SMC), trade openness (KPG), inflation (INF) and development index Human Resources (HDI) have a simultaneous effect on economic growth (PEK) in Southeast Asian countries.

3.2 Second hypothesis

Table 2. Wald Test Results Domestic Credit by Banks, Savings, Stock Market Capitalization, Trade Openness, Inflation and Human Capital on Economic Growth in Southeast Asian Countries

Wald chi2	=	190.55
Prob> chi2	=	0.0000

From table 2 it can be seen that the value of Prob>chi2 is 0.0000, this value is smaller than 0.005. Based on this, it can be concluded that Ho is rejected and H1 is accepted, meaning that together domestic credit by banks (KDB), savings (TBG), stock market capitalization (SMC), trade openness (KPG), inflation (INF) and the human development index (HDI) has a simultaneous effect on economic growth (PEK) in Southeast Asian countries.

3.3 Third hypothesis

Table 3.GMM System Panel Data Regression Results Domestic Credit, Savings, Stock Market Capitalization, Trade Openness, Inflation and Human Capital Variables on Economic Growth

	Robust					
pek	coef.	Std. Err	z	P>|z|	[95%].	[Interval]
pek						
L1.	-.334747	.0706385	-4.7	0.000	-.473196	-.19629
kdk	.184784	.0894939	2.0	0.039	.009380	.360189
kdk2	-.0012	.0004801	-2.5	0.010	-.002171	-.00028
tbg	-.033171	.1296578	-0.2	0.798	-.287296	.22095
smc	.026929	.0192094	1.4	0.161	-.010720	.06457
kpg	.015574	.0071316	2.1	0.029	.001596	.02955
inf	-.093735	.1219567	-0.7	0.442	-.332766	.145295
hdi	-42.3554	24.95449	-1.7	0.090	-91.2653	6.5544
_cons	31.0159	12.91274	2.4	0.016	5.70743	56.3244

Based on the results of the estimation of the panel data in Table 3, the regression coefficient for the domestic credit variable (KDK) has a positive sign of 0.185 with a probability of 0.039 which is smaller than = 0.05. Based on this, H0 is rejected and H1 is accepted, so that the alternative hypothesis proposed in this study can be accepted. This means that there is a significant influence between domestic credit (KDK) on economic growth (PEK) in Southeast Asian countries with the assumption of cateris paribus.

Based on the results of the estimation of panel data in Table 3, the regression coefficient of the domestic credit quadratic variable (KDK2) has a negative sign of 0.001 with a probability of 0.010 which is smaller than = 0.05. Based on this, H0 is rejected and H1 is accepted, so that the alternative hypothesis proposed in this study can be accepted. This means that there is a significant influence between the square of domestic credit (KDK2) on economic growth (PEK) in Southeast Asian countries with the assumption of cateris paribus.

3.4 Fourth hypothesis

Table 4.GMM System Panel Data Regression Result Domestic Credit by Banks, Savings, Stock Market Capitalization, Trade Openness, Inflation and Human Capital on Economic Growth in Southeast Asian Countries

pek	Robust coef.	Std. Err	z	P>|z|	[95% Conf.	Interval]
pek						
L1.	-.2929207	.0674533	-4.34	0.000	-.4251267	-.1607146
kdb	.0159309	.1166045	0.14	0.891	-.2126096	.2444715
kdb2	-.0005934	.0007063	-0.84	0.401	-.0019778	.000791
tbg	-.1704154	.0660135	-2.58	0.010	-.2997995	-.0410314
smc	-0.0085185	.0310175	-0.27	0.784	-.0693117	.0522748
kpg	.0427778	.0133483	3.20	0.001	.0166157	.0689399
inf	.004649	.120177	0.04	0.969	-.2308936	.2401915
hdi	-16.16999	24.27008	-0.67	0.505	-63.73847	31.39849
_cons	23.19588	12.35173	1.88	0.060	-1.013067	47.40483

Based on the results of the panel data estimation in Table 4, the regression coefficient of the domestic credit variable by banks (KDB), has a positive sign of 0.159 with a probability of 0.891 which is greater than = 0.05. Based on this, Ho is accepted and Ha is rejected, so that the alternative hypothesis proposed in this study is rejected. This means that there is no significant effect between domestic credit by banks (KDB), on economic growth (PEK) in Southeast Asian countries with the assumption of cateris paribus.

Based on the results of the panel data estimation in Table 4.6, the regression coefficient of the domestic credit quadratic variable by banks (KDB2), has a negative sign of 0.006 with a probability of 0.401 which is greater than = 0.05. Based on this, Ho is accepted and Ha is rejected, so that the alternative hypothesis proposed in this study is rejected. This means that there is no significant effect between the square of domestic credit by banks (KDB2), on economic growth (PEK) in Southeast Asian countries with the assumption of cateris paribus.

3.5 Fifth hypothesis

1) Savings in domestic credit to economic growth
   Based on the results of the panel data estimation in Table 3, the regression coefficient of the savings variable (TBG), has a negative sign of 0.033 with a probability of 0.798 which is greater than = 0.05. Based on this, Ho is accepted and Ha is rejected, so that the alternative hypothesis proposed in this study is rejected. This means that there is no significant effect between savings (TBG) on economic growth (PEK) in Southeast Asian countries with the assumption of cateris paribus.
2) Savings in domestic credit by banks on economic growth
   Based on the results of the estimation of panel data in Table 4, the regression coefficient of the savings squared variable (TBG) has a negative sign of 0.170 with a probability of 0.010 which is smaller than = 0.05. Based on this, H0 is rejected and H1 is accepted, so that the alternative hypothesis proposed in this study can be accepted. This means that there is a significant influence between savings (TBG) on economic growth (PEK) in Southeast Asian countries with the assumption of cateris paribus.

3.6 Sixth hypothesis

1) Stock market capitalization in domestic credit on economic growth
   Based on the results of the panel data estimation in Table 3, the regression coefficient of the stock market capitalization variable (SMC), has a positive sign of 0.027 with a probability of 0.161 which is greater than = 0.05. Based on this, Ho is accepted and Ha is rejected, so that the alternative hypothesis proposed in this study is rejected. This means that there is no significant effect between stock market capitalization (SMC) and economic growth (PEK) in Southeast Asian countries with the assumption of cateris paribus.
2) Stock market capitalization in domestic credit by banks on economic growth

Based on the results of the panel data estimation in Table 4, the regression coefficient of the stock market capitalization variable (SMC), has a negative sign of 0.008 with a probability of 0.784 which is greater than = 0.05. Based on this, Ho is accepted and Ha is rejected, so that the alternative hypothesis proposed in this study is rejected. This means that there is no significant effect between stock market capitalization (SMC) and economic growth (PEK) in Southeast Asian countries with the assumption of cateris paribus.

3.7 Seventh hypothesis

1) Trade openness in domestic credit to economic growth
   Based on the results of the estimation of panel data in Table 3, the regression coefficient of the trade openness variable (KPG) has a positive sign of 0.156 with a probability of 0.029 which is smaller than = 0.05. Based on this, H0 is rejected and H1 is accepted, so that the alternative hypothesis proposed in this study can be accepted. This means that there is a significant influence between trade openness (KPG) on economic growth (PEK) in Southeast Asian countries with the assumption of cateris paribus.
2) Trade openness in domestic credit by banks to economic growth
   Based on the results of the estimation of panel data in Table 4, the regression coefficient of the trade openness variable (KPG) has a positive sign of 0.428 with a probability of 0.001 which is smaller than = 0.05. Based on this, H0 is rejected and H1 is accepted, so that the alternative hypothesis proposed in this study can be accepted. This means that there is a significant influence between trade openness (KPG) on economic growth (PEK) in Southeast Asian countries with the assumption of cateris paribus.

3.8 Eighth hypothesis

1) Inflation in domestic credit on economic growth
   Based on the results of the panel data estimation in Table 3, the inflation variable regression coefficient (INF) has a negative sign of 0.094 with a probability of 0.442 which is greater than = 0.05. Based on this, Ho is accepted and Ha is rejected, so that the alternative hypothesis proposed in this study is rejected. This means that there is no significant effect between inflation (INF) on economic growth (PEK) in Southeast Asian countries with the assumption of cateris paribus.
2) Inflation in domestic credit by banks on economic growth
   Based on the results of the panel data estimation in Table 4, the inflation variable regression coefficient (INF) has a positive sign of 0.005 with a probability of 0.969 which is greater than = 0.05. Based on this, Ho is accepted and Ha is rejected, so that the alternative hypothesis proposed in this study is rejected. This means that there is no significant effect of inflation (INF) on economic growth (PEK) in Southeast Asian countries with the assumption of cateris paribus.

3.9 Ninth hypothesis

1) Human development index in domestic credit on economic growth
   Based on the results of the panel data estimation in Table 3, the regression coefficient of the Human Development Index (HDI) variable has a negative sign of 42,355 with a probability of 0.090 which is greater than = 0.05. Based on this, Ho is accepted and Ha is rejected, so that the alternative hypothesis proposed in this study is rejected. This means that there is no significant effect between the human development index (HDI) on economic growth (PEK) in Southeast Asian countries with the assumption of cateris paribus.
2) Human development index in domestic credit by banks on economic growth
   Based on the results of the panel data estimation in Table 4, the regression coefficient of the Human Development Index (HDI) variable has a negative sign of 16.17 with a probability of 0.505 which is greater than = 0.05. Based on this, Ho is accepted and Ha is rejected, so that the alternative hypothesis proposed in this study is rejected. This means that there is no significant effect between the human development index (HDI) on economic growth (PEK) in Southeast Asian countries with the assumption of cateris paribus.

The Non-Linear Impact of Domestic Credit on Economic Growth in Southeast Asian Countries

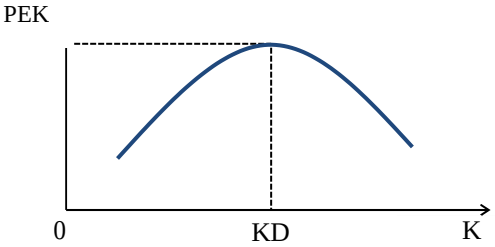

Figure 1. Non-linear Impact of Domestic Credit on Economic Growth

From Figure 1, it can be seen that an increase in domestic credit (KDK) will lead to an increase in economic growth (PEK) in Southeast Asian countries. However, the positive relationship between domestic credit (KDK) and economic growth (PEK) can only occur up to the optimal domestic credit threshold (KDK*). When the domestic credit value exceeds this optimal threshold, the correlation between domestic credit (KDK) and economic growth (PEK) becomes negative. Based on this, the inverted U-shaped pattern between domestic credit (KDK) on economic growth (PEK) means that domestic credit (KDK) does not have a permanent positive impact on economic growth (PEK). Meanwhile, economic growth (PEK) in Southeast Asian countries will reach a maximum value at the optimal domestic credit threshold (KDK*). The results of this study are in line with research regarding domestic credit and economic growth in ASEAN countries with a non-linear approach [2].

The Effect of Domestic Credit on Economic Growth in Southeast Asian Countries.

By looking at the results of the calculation of the regression equation above, it is found that the coefficient value of the domestic credit variable parameter (KDK) has a positive sign. Domestic credit (KDK) has a significant influence on economic growth (PEK). Thus, this calculation is in line with the hypothesis. This shows that any increase in domestic credit (KDK) that occurs in Southeast Asian countries will have an impact on increasing economic growth and conversely a decrease in domestic credit will result in a decrease in economic growth.

The results of this study are in line with economic theory where an increase in credit in Southeast Asian countries will lead to an increase in investment that will be used by business actors to expand their business which will have an impact on increasing output, absorption of labor and increasing demand for production goods. Increased output and employment will stimulate economic activity so that it will become a stimulus for increasing economic growth in a country.
The results of this study are also in line with several studies conducted [9]. Regarding the impact of regional financial development on economic growth in the Beijing-Heibei-Tianjin region. The results of this study indicate that CREDIT has a positive effect on economic growth.

The Effect of Saving on Economic Growth in Southeast Asian Countries

By looking at the results of the calculation of the regression equation above, it is found that the coefficient of the saving variable parameter (TBG) has a negative sign although statistically it does not have a significant effect on economic growth (PEK). This shows that any increase in savings that occurs in Southeast Asian countries will have an impact on a decrease in economic growth and conversely a decrease in savings will result in an increase in economic growth.

The negative influence between savings and economic growth occurs because an increase in savings in Southeast Asian countries will cause a decrease in the level of public consumption. People relatively prefer to save their funds than to spend them. A decrease in consumption will have a negative effect on the economy. Business actors and investors will delay investment and reduce their production to adjust to public demand which will affect the level of economic growth. The negative result of savings on economic growth in Southeast Asian countries can occur because most Southeast Asian countries have adopted an open economy so that access to capital becomes wider and does not depend on domestic savings.

The results of this study are also in line with several studies which analyzed the economic effect of increasing national saving in America [10]. The results of this study show that in the short term, he analyzes problems from the consumption function to the economy. An increase in savings will result in a reduction in the level of consumption and when this happens it will slow down growth in the short term.

The Effect of Stock Market Capitalization on Economic Growth in Southeast Asian Countries

By looking at the results of the calculation of the regression equation above, the parameter coefficient value of the stock market capitalization variable (SMC) has a positive sign although statistically it does not have a significant effect on economic growth (PEK). This shows that any increase in stock market capitalization that occurs in Southeast Asian countries will have an impact on increasing economic growth and conversely a

decrease in stock market capitalization will result in a decrease in economic growth.

The positive influence between stock market capitalization and economic growth occurs because the stock market is known to play an important role in encouraging increased mobilization of effective savings for investment and facilitating capital inflows. An increase in the value of market capitalization will provide an increase in investment so that it will drive the wheels of a country's economy.

The results of this study are also in line with several studies which analyzed the effect of stock market capitalization on economic growth in Africa [7]. The results of this study indicate that an increase in stock market capitalization by an average of 10% marginally encourages an average economic growth of 5.4% in the countries studied. The positive relationship between stock market capitalization and economic growth provides an encouraging signal for African countries to explore the stock market as a potential avenue to accelerate economic growth.

The Effect of Trade Openness on Economic Growth in Southeast Asian Countries

By looking at the results of the calculation of the regression equation above, it is found that the value of the parameter coefficient of the trade openness variable (KPG) has a positive sign and has a significant influence on economic growth (PEK). This shows that any increase in trade openness that occurs in Southeast Asian countries will have an impact on increasing economic growth and conversely a decrease in trade openness will result in a decrease in economic growth.

The positive influence between trade openness and economic growth occurs because trade openness will provide wider access for a country. Open trade can provide opportunities for a country to export its products. Open trade also makes it possible to reduce production costs by importing production factors that are scarce and/or expensive if produced in that country. This activity will spur the wheels of the economy so that it will have an influence on the country's economic growth.

The results of this study are in line with several studies conducted which examined trade openness and economic growth, empirical investment across countries [11]. One of the results of this study stated that stock trading, export and import trade in GDP were widely used in the literature and found significantly and provide a positive correlation to growth.

The Effect of Inflation on Economic Growth in Southeast Asian Countries

By looking at the results of the calculation of the regression equation above, it is found that the coefficient value of the inflation variable parameter (INF) has a negative sign although statistically it does not have a significant effect on economic growth (PEK). This shows that any increase in inflation that occurs in Southeast Asian countries will have an impact on a decrease in economic growth and conversely a decrease in inflation will result in an increase in economic growth.

The negative influence between inflation and economic growth occurs because the increase in the inflation rate will result in a decrease in real income of the community, the high domestic inflation rate compared to the inflation rate of neighboring countries makes the real domestic interest rate uncompetitive so that it can put pressure on the value of the rupiah. This will have an influence on economic actors in decisions both in terms of consumption, investment and production which will have a negative effect on economic growth.

The results of this study are in accordance with research who conducted research on inflation and economic growth in Latin America [12]. Empirical results, based on data from four Latin American countries from 1970-2007 confirm anecdotal evidence showing that inflation has a detrimental effect on economic growth in the region.

The Influence of The Human Development Index on Economic Growth in Southeast Asian Countries

By looking at the results of the calculation of the regression equation above, it is found that the value of the parameter coefficients of the Human Development Index (HDI) variable has a negative sign although statistically it does not have a significant effect on economic growth (PEK). This shows that every increase in the human development index that occurs in Southeast Asian countries will have an impact on a decrease in economic growth and vice versa, a decrease in the human development index will result in an increase in economic growth.

The negative influence between the human development index and economic growth occurs partly because the jobs available in most Southeast Asian countries do not require high education and skills. Most of the economies of countries in Southeast Asia are still supported by the agricultural sector and sectors that rely on raw natural resources. The basic assumption in assessing the contribution of education to economic growth is that an increase in education will increase

worker productivity. The problem is, such assumptions cannot be generalized. The benefits of education in increasing productivity only apply to certain occupations. In the agricultural sector and difficult geographic conditions, experience is more likely to influence productivity.

The results of this study are in line with several studies conducted research on human capital and economic growth in OECD countries using data from 1998 to 2017 [13]. Based on the results of the study, the human capital index was negatively related to economic growth. implying that human capital is an irrelevant factor because it slows down economic growth.

The Non-Linear Impact of Domestic Credit on Economic Growth in Southeast Asian Countries

By looking on table 4, it is known that economic growth (PEK) is positively influenced by domestic credit by banks (KDB) of 0,159 and negatively related to the square of domestic credit by banks (KDB2) of 0,006 but statistically does not have a significant relationship. The result of this study has not been able to show a non-linear relationship between domestic credit by banks and economic growth in Shoutheast Asian Countries.

The Effect of Domestic Credit by Banks on Economic Growth in Southeast Asian Countries

By looking at the results of the calculation of the regression equation in table 4, it is found that the coefficient value of the variable parameter of domestic credit by banks (KDB) has a positive sign. Domestic credit by banks (KDK) statistically does not have a significant effect on economic growth (PEK). A positive relationship indicates that any increase in domestic credit by banks (KDB) that occurs in Southeast Asian countries will have an impact on increasing economic growth and conversely a decrease in domestic credit by banks will result in a decrease in economic growth.

The positive relationship between domestic credit by banks and economic growth in Southeast Asian countries occurs because when credit increases by banks, it will cause an increase in investment that will be used by business actors to expand their business which will have an impact on increasing output, employment and increasing demand. to production goods. Increased output and employment will stimulate economic activity so that it will become a stimulus for increasing economic growth in a country.

The Effect of Saving on Economic Growth in Southeast Asian Countries

By looking at the results of the calculation of the regression equation in table 4, it is found that the coefficient of the saving variable parameter (TBG) has a negative sign and has a significant effect on economic growth (PEK). This shows that any increase in savings that occurs in Southeast Asian countries will have an impact on a decrease in economic growth and conversely a decrease in savings will result in an increase in economic growth.

The negative influence between savings and economic growth occurs because an increase in savings in Southeast Asian countries will cause a decrease in the level of public consumption. People relatively prefer to save their funds than to spend them. A decrease in consumption will have a negative effect on the economy. Business actors and investors will delay investment and reduce their production to adjust to public demand which will affect the level of economic growth. The negative result of savings on economic growth in Southeast Asian countries can occur because most Southeast Asian countries have adopted an open economy so that access to capital becomes wider and does not depend on domestic savings.

The results of this study are also in line with several studies conducted which analyzed the economic effect of increasing national saving in America [10]. The results of this study show that in the short term, he analyzes problems from the consumption function to the economy. An increase in savings will result in a reduction in the level of consumption and when this happens it will slow down growth in the short term.

The Effect of Stock Market Capitalization on Economic Growth in Southeast Asian Countries

By looking at the results of the calculation of the regression equation in table 4, it is found that the value of the parameter coefficient of the stock market capitalization variable (SMC) has a negative sign although statistically it does not have a significant effect on economic growth (PEK). This shows that any increase in stock market capitalization that occurs in Southeast Asian countries will have an impact on decreasing economic growth and conversely a decrease in stock market capitalization will result in increased economic growth.

The Effect of Trade Openness on Economic Growth in Southeast Asian Countries

By looking at the results of the calculation of the regression equation in table 4, it is found that the value of the parameter coefficient of the trade openness variable (KPG) has a positive sign and has a significant influence on economic growth (PEK). This shows that any increase in trade openness that occurs in Southeast Asian countries will have an impact on increasing

economic growth and conversely a decrease in trade openness will result in a decrease in economic growth.

The positive influence between trade openness and economic growth occurs because trade openness will provide wider access for a country. Trade openness can provide opportunities for a country to export its products. Trade openness also allows to reduce production costs by importing production factors that are scarce and or expensive if produced in that country. This activity will spur the wheels of the economy so that it will have an influence on the country's economic growth.

The results of this study are in line with several studies conducted which examined trade openness and economic growth, empirical investment across countries [11]. One of the results of this study stated that stock trading, export and import trade in GDP were widely used in the literature and found significantly and provide a positive correlation to growth.

The Effect of Inflation on Economic Growth in Southeast Asian Countries

By looking at the results of the calculation of the regression equation in table 4, it is found that the coefficient value of the inflation variable parameter (INF) has a positive sign although statistically it does not have a significant effect on economic growth (PEK). This shows that any increase in inflation that occurs in Southeast Asian countries will have an impact on increasing economic growth and conversely a decrease in inflation will result in a decrease in economic growth.

A positive influence between inflation and economic growth occurs because inflation can be caused by an increase in public consumption. An increase in consumption (as a component of aggregate demand) indicates high demand from supply. This inflation is known as demand-pull inflation. For producers, inflation caused by a surge in demand will provide benefits if the income earned is higher than the increase in production costs. Higher profits will encourage producers to double their production. Rising prices and profit expectations also allow business actors to speculate, especially on products that are relatively unsubstituted.

The results of this study are in accordance with the research conducted research on inflation and economic growth in South Asia using cointegration and error correction models (ECM) [14]. The results of this study indicate that in the long-term inflation has a positive effect on economic growth.

The Influence of the Human Development Index on Economic Growth in Southeast Asian Countries

By looking at the results of the calculation of the regression equation in table 4, it is found that the value of the parameter coefficient of the human development index (HDI) variable has a negative sign although statistically it does not have a significant effect on economic growth (PEK). This shows that every increase in the human development index that occurs in Southeast Asian countries will have an impact on a decrease in economic growth and vice versa, a decrease in the human development index will result in an increase in economic growth.

The negative influence between the human development index and economic growth occurs partly because the jobs available in most Southeast Asian countries do not require high education and skills. Most of the economies of countries in Southeast Asia are still supported by the agricultural sector and sectors that rely on raw natural resources. The basic assumption in assessing the contribution of education to economic growth is that an increase in education will increase worker productivity. The problem is, such assumptions cannot be generalized. The benefits of education in increasing productivity only apply to certain occupations. In the agricultural sector and difficult geographic conditions, experience is more likely to influence productivity.

The results of this study are in line with several studies conducted research on human capital and economic growth in OECD countries using data from 1998 to 2017 [13]. Based on the results of the study, the human capital index was negatively related to economic growth. implying that human capital is an irrelevant factor because it slows down economic growth.

4. CONCLUSION

Based on the results of data processing with GMM analysis, a discussion of the results of research between domestic credit, domestic credit by banks, savings, stock market capitalization, trade openness, inflation and human development index on economic growth in Southeast Asian countries either jointly or partially the following conclusions were obtained: Domestic credit (KDK), savings (TBG), stock market capitalization (SMC), trade openness (KPG), inflation (INF) and the human development index (HDI) simultaneously have a simultaneous effect on economic growth (PEK) in the country Southeast Asia. Domestic credit (KDK) has a positive sign. Domestic credit (KDK) has a significant influence on economic growth (PEK). Savings (TBG) has a negative sign although statistically it does not have a significant effect on economic growth (PEK). Stock

market capitalization (SMC) has a positive sign although statistically it does not have a significant effect on economic growth (PEK). Trade openness (KPG) has a positive sign and has a significant influence on economic growth (PEK). Inflation (INF) has a negative sign although statistically it does not have a significant effect on economic growth (PEK). The human development index (HDI) has a negative sign although statistically it does not have a significant effect on economic growth (PEK). Domestic credit by banks (KDB), savings (TBG), stock market capitalization (SMC), trade openness (KPG), inflation (INF) and the human development index (HDI) simultaneously have a simultaneous effect on economic growth (PEK) in Southeast Asian countries. Domestic credit by banks (KDB) has a positive sign. Domestic credit by banks (KDK) statistically does not have a significant effect on economic growth (PEK). Savings (TBG) has a negative sign and has a significant effect on economic growth (PEK). Stock market capitalization (SMC) has a negative sign although statistically it does not have a significant effect on economic growth (PEK). Trade openness (KPG) has a positive sign and has a significant influence on economic growth (PEK). 2.5 Inflation (INF) has a positive sign although statistically it does not have a significant effect on economic growth (PEK). The human development index (HDI) has a negative sign although statistically it does not have a significant effect on economic growth (PEK).

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