Foreign Capital Growth and Economic Growth: A Case Study of ASEAN Countries

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Abstract: This study aims to examine the effect of foreign direct investment and external debt growth on ASEAN-6 countries' economic growth during the period of 2011-2019 based on neoclassical growth theory. The panel data regression is used to analyze the countries' data. The results indicate that the growth of foreign direct investment does not significantly affect the countries' economic growth, while external debt does.

Keywords: Economic growth, external debt, foreign direct investment

Introduction

In neoclassical economic growth theory, capital growth is the main factor influencing economic growth (Solow, 1956). The higher the capital growth of a country, the higher its economic growth will be. The capital from this theory's side is physical capital which will later be used to support the process of producing goods and services in the country (Jilenga et al., 2016).

A country can obtain the capital from within or outside the country. However, in many countries, the availability of domestic capital is often insufficient to fund national development (Ehigiamusoe & Lean, 2019). This is partly due to the low public income so that it has an impact on the low public saving. This limitation can be one of the important barrier factors in generating higher national output (Todaro & Smith, 2020). Therefore, many countries then seek foreign capital to encourage economic growth, either through foreign direct investment or external debt (Jilenga et al., 2016).

The flow of foreign capital into each region of the world is different. Based on data from the United Nations Conference on Trade and Development (2019), Southeast Asia or ASEAN region is the largest recipient of foreign direct investment (FDI) in Asia. Over the past 10 years, FDI inflows to ASEAN countries have tended to increase (World Bank, 2020b). This is because ASEAN region is considered by investors to be able to manage volatile capital flows after the global crisis in 2008-2009, thereby increasing the attractiveness of investing in ASEAN (ASEAN Secretariat, 2011). In addition, the tensions in the trade war between the US and China have also made ASEAN region an increasingly attractive area for investment purposes, especially Vietnam, Thailand, Philippines, Indonesia and Malaysia which are the five largest recipients of FDI after Singapore (ASEAN Secretariat, 2019).

Not only FDI, ASEAN's total external debt (-1) also has an increasing trend over the last 10 years, especially in 2012 where the increase was the most significant (World Bank, 2020a). The increase was mainly driven by a significant increase in inflows to public borrowers which accounted for half of long-term debt inflows (World Bank, 2014). This increase in external debt and FDI is also in line with the increase in total real GDP growth in ASEAN countries, indicating that ASEAN countries are also using foreign capital in increasing their economic growth.

Foreign direct investment provides the capital and technology needed to encourage the growth of company production in the destination country, where this growth will contribute to GDP growth or the output of goods and services produced thereby increasing economic growth (Mody, 2006). Meanwhile, external debt is used by the government for general financing and financing of certain activities or investments, such as efforts to close the gap in infrastructure provision and increase the Human Development Index (HDI) to increase economic growth. Utilization of a reasonable level of external debt and used for investment can encourage the development of the country by increasing output and national income, so that it will increase the economic growth of a country as well (Poirson et al., 2004)

However, prior studies found conflicting results about the effect of foreign capital growth on economic growth. For instance, Djulius (2018) found positive effects of foreign direct investment and external debt growth on economic growth in Indonesia, while Azeez et al. (2015) found that the foreign capital brings negative impact on Nigeria's economic growth. The later is due to the country's macroeconomic instability, causing the government must take certain policies to overcome its negative impact on economic growth.

Given these inconsistent results, this study attempts to fill the gap by examining the role of foreign direct investment and external debt growth on the economic growth of ASEAN-6 countries This research data period is set to be 2011-2019. During the period, the ASEAN-6 received relatively high, with upward trends, foreign capital after the global financial crisis 2008-2009 (ASEAN Secretariat, 2011), and the countries gained positive effects of the US-China trade war. (ASEAN Secretariat, 2019). This study also considers that the effect of foreign capital on economic growth might not only occur during the same year of investment, but also occur one or two years later.

LITERATURE REVIEW

Neoclassical Economic Growth Theory

Neoclassical economic growth theory was first put forward by Solow (1956) which is the development of Harrord-Domar theory. In contrast to Harrord-Domar, Solow (1956) added labor to the economic growth model because the assumption of an abundant workforce is not always valid in developing countries. In his model, he also adds technology as a third variable in the economic growth model which is then accepted as the first long-term growth model (Huda, 2017).

Unlike the Harrod-Domar model which assumes that the output capital ratio is a fixed coefficient, Solow's neoclassical growth model formulates that the value of the output capital ratio can change according to the economic conditions of a country (Todaro & Smith, 2020). This means that even though the amount of capital changes, there is a possibility that the level of output does not change and vice versa. On the other hand, Solow's model assumes a scale or diminishing returns to diminishing returns from the factors of production of capital and labor if the number of the two factors of production increases over time. This occurs when the production capacity or output

produced does not increase even though the capital or input has been increased (Samuelson & Nordhaus, 2009). However, if the level of the two factors of production is still low, the Solow model (1956) also assumes a constant return to scale (Arsyad, 2014).

Foreign Capital Overview in ASEAN-6 Countries

Foreign direct investment is an investment on an international scale by direct investors to obtain lasting interest in companies located in other countries or direct investment companies (Patterson & International Monetary Fund, 2004). During 2011-2019, the growth of FDI in ASEAN-6 countries experienced very volatile movements, especially in The Philippines and Thailand. In 2011, the growth of FDI in Philippines experienced a drastic increase due to an eightfold increase in M&A from the previous year (ASEAN Secretariat, 2012). In the following year, the growth of FDI in Thailand also experienced a significant increase due to the government's policy of reducing corporate tax to 23%, thereby increasing the flow of foreign direct investment into the country (ASEAN Secretariat, 2014). Overall, each ASEAN-6 country has made various efforts to encourage FDI such as exemption from import duties and taxes.

According to (Sukirno, 2013), external debt is a flow of funds from abroad which is not intended to seek profit and is obtained on lighter terms than those stipulated in the international market. This external debt is used as financing for certain activities or projects in the public and private sectors (World Bank, 2020a). Although the total external debt of ASEAN-6 countries tends to increase, the growth in total external debt in fact has a declining trend and quite volatile. In the midst of this downward trend, the growth of external debt in Thailand and still continued to increase significantly, especially in 2012 and 2017. This was in line with the increase in Thailand's short-term external debt category (World Bank, 2014) and public long-term external debt owned by Vietnam (World Bank, 2019). Overall, the average growth of ASEAN-6 countries' external debt continued to grow during the study period.

The Growth of Foreign Direct Investment on Economic Growth

Solow (1956) formulated that the most important factor influencing the economic growth of a country is the growth of its capital, including foreign capital. This is because the growth of foreign capital can expand the production process and marketing of products, so as to increase the company's production, national income, and economic growth (Todaro & Smith, 2020). Foreign capital in the form of foreign direct investment provides the capital, organizational and managerial systems, and investments needed by the host country, so as to encourage the performance and growth of the company's production. This company's production growth will contribute to the increase in national output and encourage economic growth (Mody, 2006). In addition, foreign direct investment can bring wider market access and reach to international export markets. For example, in the early days of economic development in China, foreign direct investment become the main contributor in increasing exports which encourage economic growth (Kehal, 2005). Foreign direct investment can also give a positive signal to other multinational companies (MNCs) that there is a favorable investment climate in the host country as well as to reduce investment risk in that country. The increase or growth of foreign direct investment can increase the output company's output and national output which ultimately increases economic growth (Susic et al., 2017).

H1: The growth of foreign direct investment has a significant effect on the economic growth of ASEAN countries.

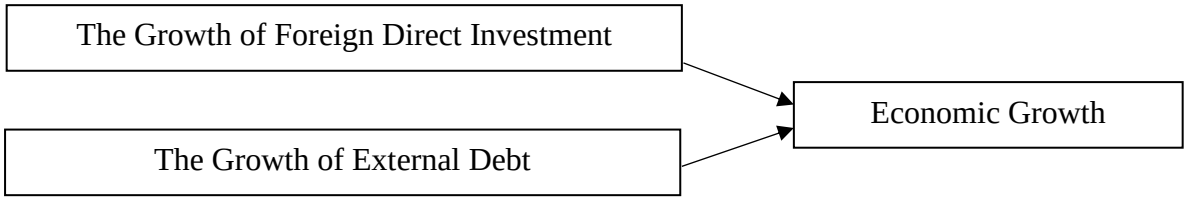
The Growth of External Debt on Economic Growth

Foreign capital growth in the form of external debt also has an important role in complementing the lack of capital resources in financing a country's development (Todaro & Smith, 2006) by covering the current account deficit and the government budget deficit. External debt can benefit the borrowing country's economy if it is used carefully for investment and development projects, for example in infrastructure, education, health, etc. (Chaudhry & Iffat, 2017). By using external debt as a source of capital for investment and development projects, it will increase the country's production capacity in a sustainable manner. Furthermore, Poirson et al. (2004) stated that a reasonable level of external debt can fill the gap in the lack of existing capital resources so that it can increase the economic growth of a country effectively.

H2: The growth of external debt has a significant effect on the economic growth of ASEAN countries.

Figure 1

Theoretical Framework



Research Methodology

The sample selection was carried out using a purposive sampling method based on the largest foreign direct investment recipient country in ASEAN according to the ASEAN Secretariat (2019) with the data period of 2011-2019. This is because of that the foreign capital flowing in the countries were relatively high after the global crisis of 2008-2009 (ASEAN Secretariat, 2011). The data of this study are obtained indirectly from the World Bank.

Data analysis technique

The data analysis technique used in this research is panel data regression analysis technique, with the model equation as follow.

$$EG_{it} = \beta_0 + \beta_1 FDI_{it} + \beta_2 FDI_{it-1} + \beta_3 FDI_{i(t-2)} + \beta_4 EXT_{it} + \beta_5 EXT_{i(t-1)} + \beta_6 EXT_{i(t-2)} + \beta_7 DI_{it} + \beta_8 LF_{it} + \beta_9 TFP_{it} + \varepsilon_{it}$$

Description:

EG = Economic Growth at time t
FDI = The Growth of Foreign Direct Investment at time t
FDI-1 = The Growth of Foreign Direct Investment at time t-1

FDI-2 = The Growth of Foreign Direct Investment at time t-2
EXT = The Growth of External Debt at time t
EXT-1 = The Growth of External Debt at time t-1
EXT-2 = The Growth of External Debt at time t-2
DI = The Growth of Domestic Capital at time t
LF = The Growth of Labor at time t
TFP = Technology Development at time t
β_0 = Constant
β_{1-6} = Independent Variables Regression Coefficient
β_{7-9} = Control Variables Regression Coefficient
ε = Error
i = Number of objects *(cross section)*
t = Number of periods *(time series)*

Findings & Discussion

After conducting some model selection tests. The Fixed Effect Model is chosen as the most appropriate model in this study. The classical linear regression model assumptions has ben met in order to obtain the BLUE model.

Table 3.
Results of Panel Data Regression

Variable	***Basis Model***	***IV Model***	***Complete Model***
C	0.0383 (0.0043)	0.0456 (0.0030)	0.0371 (0.0025)
FDI		0.0086 (0.0047)	0.0048 (0.0032)
FDI-1		0.0076 (0.0042)	0.0028 (0.0029)
FDI-2		0.0056 (0.0035)	0.0011 (0.0025)
EXT		0.0460 (0.0244)	0.0247 (0.0177)
EXT-1		0.0230 (0.0191)	0.0047 (0.0136)
EXT-2		0.0036 (0.0185)	0.0045 (0.0125)
DI	0.0846 (0.0214)*		0.0792 (0.0233)*
LF	0.0794 (0.0879)		0.0451 (0.1094)
TFP	0.5228 (0.0790)*		0.4777 (0.0935)*
F-statistic	26.6441	7.0831	17.0302
Prob (F-statistic)	0.0000	0.0000	0.0000
R-squared	0.6152	0.6498	0.8594

Adjusted R-squared	0.5921	0.5580	0.8090

Keterangan : *α = 5%

Based on table 3, the growth of foreign direct investment in time t, t-1, and t-2 have no significant effect on ASEAN-6 countries' economic growth during the observation period. The results of this study are in contrast with the neoclassical economic growth theory which states that capital growth (including foreign capital) is the main factor influencing the economic growth of a country (Solow, 1956). This variable does not have a significant effect on economic growth because the growth in the amount of FDI flowing into the countries does not provide significant contributions to their GDP. According to United Nations Conference on Trade and Development (2020), FDI can significantly affect a country's economic growth if its amount is more than 10% of the total country's GDP. Although the growth of FDI inflow in ASEAN countries tended to increase during 2011-2019, its average contribution to each of the country's GDP was less than 10%. As was mentioned by Mankiw (2016) that FDI might have a significant impact on economic growth in the long term because the absorption of investment cannot occur instantaneously in one year or two years only. Therefore, the growth of foreign direct investment in time t until t-2 does not have a significant effect on ASEAN-6 countries' economic growth.

Based on the regression results, the growth of external debt in time t, t-1, and t-2 have no significant effect on the countries' economic growth during the study period. These results are not in line with the neoclassical economic growth theory which states that capital growth (including foreign capital) is the main factor influencing the economic growth of a country (Solow, 1956). When a country is not able to utilize debt optimally to encourage economic development and ensure effective repayment of that debt, the debt made by the government will not be useful for the country's economic growth (Bakare, 2010). Shkolnyk & Kolio (2018) also stated that the government's strategy in allocating external debt plays a very important role in determining the effect of the debt on economic growth. The implementation of ineffective government strategies in managing debt will not have a significant effect on economic growth. According to Chaudhry & Iffat (2017), the growth of external debt can be beneficial for the borrowing country's economy if it is used carefully for investment and development projects, for example in infrastructure, education, health, etc. However, these projects take a long time to produce results that have an impact on economic growth. Therefore, the growth of external debt in time t until t-2 has no significant effect on the economic growth of ASEAN-6 countries.

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