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Economic Environment Effect: Foreign Investment Variables, Exports and Dollar Exchange Rates

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Abstract: The increase of foreign debt can be affected by inter-state trade in which there are foreign investment, exports, and imports. The value of foreign investment, exports, and imports of a country is affected by the dollar exchange rate. This study aims to test empirically the influence of foreign investment, exports and imports of foreign debt with the dollar exchange rate as an intervening variable. The data used in this study are secondary data which is available at Bank of Indonesia (BI), The Ministry of Finance, UNCTAD FDI / TNC database and BPS data from 1986 to 2017. The data analysis technique used is path analysis. Based on the results of the analysis, foreign investment variables, exports and dollar exchange rates do not directly affect foreign debt, but imports directly affect foreign debt. Dollar exchange rate as an intervening variable for export and import variables has an indirect influence on foreign debt in Indonesia in from 1986 to 2017, while foreign investment variable on foreign debt of dollar rate does not become an intervening variable.

Keywords: Dollar Rate, Export, Foreign Debt, Foreign Investments, Import

1. Introduction

Economic growth in 2017, under the government of Joko Widodo or better known as President Jokowi has a program. This program has the name of the Nawa Cita Program, as an effort to increase the prosperity and welfare of the Indonesian people or country. The increase occurred in the export, import and economic development sectors. This effort is the cause of foreign debt. As a developing country that carries out foreign debt, it is identified that the Indonesia depends on international debt. The data on foreign debt from 2010 to 2017 is shown in the figure 1.

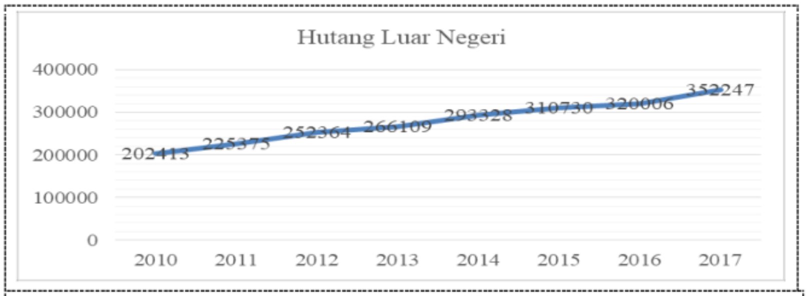

Figure 1. Foreign Debt of the Government in 2008-2017 (Million USD).
[a] Source: Bank of Indonesia.

The increase of foreign debt may be caused by inter-state trade which involves foreign investment, exports and imports. Inter-state trade or international trade is very important for the economy in order to achieve the welfare and prosperity of a country that cannot meet the internal needs of the country. Indonesia regulates foreign investment in the law on investment. The Purpose of Foreign Investment according to Law No. 25 Year 2007 includes increasing national economic growth, creating employment, improving development and sustainable economy, and improving the competitiveness of the national business world. The development of foreign investment in 2010-2016 can be seen in the table 1.

Table 1 Foreign Investment (in Million U$D)

Variable Year	Investment Foreign	Export	Import
2010	13771	148866	118884
2011	19241	189432	157217
2012	19138	185337	178626
2013	18817	180294	176112
2014	21811	173760	168286
2015	16641	150695	134406
2016	2658	145186	135653

[b] Source: UNCTAD FDI/TNC database, based on data from the Bank of Indonesia and the bureau of statiscical centre.

The existence of the foreign investment funds can be used as capital in running businesses both citizens and the state in the effort of economic growth in Indonesia and it can also used to recover government's foreign debt. Efforts to pay Indonesia's foreign debt are influenced by the increase of foreign investment, exports and imports and dollar rate. Several studies on factors affecting foreign debt conducted by Dison (2015) stated that imports have the most influence on foreign debt. While Saputra (2016) stated that exports have a significant positive effect on economic growth

In contrast to research conducted by Samsubar (2008) stating that, in the short term, the exchange rate, exports and GNP rates have no significant effect on Indonesia's foreign debt. While Hidayat (2017) stated that foreign direct investment inflow has no partial effect on exports. This study has similarities to research about variables affecting foreign debt. The differences of this research from previous research is the existence of dollar rate as intervenig variable with the purpose of whether foreign investment, export and import variable influence foreign debt through dollar exchange rate. So the researcher is interested to carry on the research related to foreign debt with foreign investment, export and import variable as well as dollar exchange rate as intervening variable.

2. Methodology

The data used in this study is secondary data, the data taken from what has been published by Bank Indonesia and the Ministry of Finance, the Central Statistics Agency, the World Bank and UNCTAD in the form of publication of foreign debt, foreign investment, exports, imports and dollar exchange rates on Government Financial Reports and Government Budget Calculations in 1986-2017. This study relates between variables X and variable Y. Independent variables (X) are variables that affect foreign debt, which consists of foreign investment (X1), exports (X2) and imports (X3) and Intervening variables (Z) dollar exchange rates. With path analysis techniques.

3. Data Analysis

The interpretation and the result path analysis can be seen in this section

Table 2 Resume of Estimation Result of Parameter Model

Model	un*standardized coeffisien beta*	T	Sig	R^2
Structural linear 1 (X_1, X_2 dan X_3 ke Y_1)				
$P_1X_1Y_1$	0,399	0,842	0,407	
$P_2X_2Y_1$	-6.522	-1,279	0,211	0,096
$P_3X_3Y_1$	-1,967	-1,383	0,717	
Persamaan 2 (X_1, X_2, X_3 dan Y_1ke Y_2)				
$P_4X_1Y_2$	7387,35	0,931	0,36	
$P_5X_2Y_2$	0,018	0,202	0,841	0,763
$P_6X_3Y_2$	1,129	4,64	0	
$P_7Y_1Y_2$	-4390,758	-1040	0,172	

[c] Source: secondary data, taken in 2018

Table 3 Analysis Result of Direct And Indirect Effect

No	Variable	*Direct*	*Indirect*	Total	Criteria	Conclussion
1	Foreign investment	7387,35	-1751,9	5635,44	*Direct > Indirect = intervening*	Dollar rate not as intervening variable
2	Export	-6,522	28636,5	28630	*Direct < Indirect = intervening*	Dollar rate as intervening variable
3	Import	-1,967	8639,26	8637,29	*Direct < Indirect = intervening*	Dollar rate as intervening variable

[d] Source: secondary data, taken in 2018

Based on the table 3, there is no indirect effect of foreign investment (X1) on foreign debt (Y2) through the dollar exchange rate (Y1) about -1751.9 < direct influence of foreign investment (X1) on foreign debt (Y2) about 7387.35 . So, H4 is rejected. The indirect effect of exports (X2) on foreign debt (Y2) through the dollar exchange rate (Y1) is about 28636.5 > the direct effect of exports (X2) on foreign debt (Y2) about -6,522. So, H5 is accepted. Indirect influence of imports (X3) on foreign debt (Y2) through the dollar (Y1) exchange rate is about 8639.26> direct import effect (X3) on foreign debt (Y2) about -1,967. So, that H6 is accepted.

4. Discussion

4.1. The Direct Effect of Foreign Investment on Foreign Debt

Based on the partial test results with the variable t test of foreign investment on foreign debt, it shows the score of unstandardized coefficient beta as 7387,350 with a significant value 0.931> 0.05, and then H1 is rejected. This means that any increase or decrease in foreign investment will not affect on foreign debt of the Indonesian government. The absence of direct influence of foreign investment on foreign debt rejects Arsyad's theory (1997) that investment capital used productively can increase a country's economic growth. This is strengthened by Harrod-Domar's opinion that investment capital is a factor of economic growth. While the investment itself is regulated in Law No. 25 in 2007 concerning wiht investment which aims at increasing national economic growth, creating job vacancy, enhancing sustainable economic development and increasing the competitiveness of the national business world.

The results of this study are supported and reinforced by Jufrida's research (2016) stating that foreign investment has a positive effect but it is not significant with GDP as 356,477.9 million US $. This means that every additional investment about 1 million US $ will result an increase in GDP about 356,477.9 by assuming other variables considered fixed (cateris paribus). This is in contrast with the Alpon’s research (2016) stating that export income, foreign investment and savings have a significant negative effect on foreign debt.

4.2. The Direct Effect of Export on Foreign Debt

Based on the results of export test, it showed unstandardized beta coefficient score about 0.018 with a significant score about 0.841> 0.05, then H2 was rejected. It means that this research shows that the more increase or the more decrease of an export will not affect foreign debt. The absence of export effect on foreign debt rejects the theory of Sukirno (2000) in Pujoalwanto (2014) stating that the increase in the production of goods and services, and the the increase of prosperity is a development of economic activity called economic growth. It means that it is no matter how export increases or decrease will not affect foreign debt.

The results of this study are supported and reinforced by Saleh’s research (2008) which states that in the short-term estimation (EG-ECM) of exchange rates, exports and the level of GNP do not have a significant effect on the Indonesian foreign loans at a 5% significance level.

4.3. The Direct Effect of Import on Foreign Debt

Based on the test results, it showed unstandardized beta value about 1.129 with a significant value as 0.000 <0.05, then H3 was received. There is a direct influence of imports on foreign debt. This means that if imports experience an increase, foreign debt will increase. In contrary, if imports experience a decline, foreign debt will tend to decrease.

Imports affect foreign debt in which it is in line with Nopirin's theory (2009) that imports are a leak of income that creates domestic capital flows to abroad. The results of this study are supported and reinforced by research conducted by Gede Saputra (2016) stating that imports have a negative impact and is significant with Indonesia's economic growth for the period 1996-2013.

4.4. Indirect Influence Of Foreign Investment

The dollar exchange rate in this study does not mediate (intervening) the relationship between foreign investment and foreign debt of the Indonesian Government. The dollar rate variable does not make foreign investment variables affect foreign debt indirectly. This reason is shown from the indirect effect value of the foreign investment variable on foreign debt through the dollar exchange rate which the value is greater than the direct effect of the variable foreign investment on foreign debt. The value of direct effect is greater than that of direct effect (7387, 350> -1751.91), so foreign investment does not indirectly affect foreign debt. Thus, the fourth hypothesis (H4) has an indirect effect of foreign investment on foreign debt through the dollar exchange rate as an intervening variable. From the results of the regression analysis test, it can be stated that in this study, H4 is rejected. Direct influence is greater than indirect influence, meaning that the actual relation is that a direct influence or dollar exchange rate is not as an intervening variable. The results of this study are supported and strengthened by Ristuningsih’s study (2016) stating that exports show a less significant influence on foreign debt. Whereas Frederica (2014) stated that variable of dollar exchange rate did affect significantly on foreign direct investment in Indonesia for the period 2007-2012.

4.5. The Indirect Influence of Exports

The dollar exchange rate in this study mediates (intervening) the relation of exports towards Indonesian Government foreign debt. The dollar exchange rate variable causes the export variable to affect foreign debt indirectly. This reason is shown from the value of the direct effect of export variable on foreign debt through the dollar exchange rate which is less than the indirect effect of exports variable on foreign debt. The value of indirect effect is greater than that of direct effect (-6,522> 28636, 523), so that it can be concluded that exports indirectly affect foreign debt. Thus, the fifth hypothesis (H5) has an indirect effect of exports on foreign debt through the dollar exchange rate as an intervening variable. From the results of the regression analysis test, it can be concluded that in this study, H5 is accepted. Indirect influence is greater than direct influence, so it is concluded that the actual relation is that the dollar exchange rate is as an intervening variable.

The results of this study are in line with Amalia's theory (2007) stating that a country has to be able to produce goods and services to compete in international markets and need foreign exchange rates to carry out export activities. In reality, in developing countries, government fully takes controls on foreign exchange transactions. In this case, the exchange rate is no longer influenced by revenues and offers, but depends on the role of the government. It is Often known as an exchange control system. The results of this study are supported and reinforced by the research of Ristuningsih (2016) stating that exports show a less significant relation on foreign debt.

4.6. Indirect Effect Of Imports On Foreign Debt Through Dollar Rates As Intervening Variables

The dollar exchange rate in this study mediates (intervening) the relation between imports and Indonesian government foreign debt. The dollar exchange rate variable make the import variable affect to foreign debt indirectly. This reason is shown from the value of the direct influence of the import variable on foreign debt through the dollar exchange rate which is less than the indirect effect of import variable on foreign debt. The value of indirect effect is greater than the direct effect (-1,967> 8639, 255), so it can be concluded that imports indirectly affect foreign debt. Therefore, the sixth hypothesis (H6) has an indirect effect between imports and foreign debt through the dollar exchange rate as an intervening variable. Based on the results of regression analysis test, it can be concluded that H6 is accepted. Indirect influence is greater than direct influence. Thus, it is concluded that the actual relation is the dollar exchange rate as an intervening variable.

The results of this study are in line with the Amalia’s theory (2007) stating that the nature of foreign exchange rates depends on the nature of market demand and supply. Factors affecting exchange rate demand and supply are prices, interest rates, income, inflation, imports and exports. If the income is high (relatively to other countries), it may increase imports which mean the greater demand for foreign exchange. Likewise, if there is inflation, it will make imports experience an increase and exports experice a decrease that will cause foreign exchange rise. On the other hand, the rise of domestic interest rates will tend to attract foreign capital into the country. Then, the fiscal and monetary policies carried out by the government will result a shift in income, so this directly or indirectly will affect the supply and demand for foreign exchange rate. The results of this study are supported and strengthened by Gede Saputra (2016) stating in his research that imports have a negative and significant impact on Indonesia's economic growth for the period 1996-2013. This is in agreement with the research conducted by Ristuningsih (2016: 17) that imports negatively affect foreign debt in the long run.

4.7. Direct Influence Between Dollar Rates And Foreign Debt

The results of the dollar exchange rate study showed a value of unstandardized coeffisien beta about -4390.758 with a significant value as 0.172> 0.05, then H7 was rejected. This means that how much dollar exchange rates increase or decrease will not affect foreign debt. This study rejects the theory stated by Subandi (2012) stating that sources of infrastructure financing are taken from domestic savings, export proceeds, foreign aid and foreign investment (PMA). In the New Order era, there were terms of equilateral triangles namely petroleum, foreign aid and the Indonesian economy, because those were interrelated. In 1996, there was an economic crisis which made the new order open to accept foreign aid as the main source of infrastructure financing. The study was supported and reinforced by Ratag's research (2018) stating that the value of $t_{count}>t_{table}$ in which the variable of the exchange rate is not statistically significant with the variable of foreign debt.

This is in contrast to Afrianto (2017: 7) stating that the coefficient of the dollar exchange rate is 0.135 and has a positive relationship with foreign debt. This means that if the dollar exchange rate rises by 1 percent, foreign debt will increases by 0.138 percent with the assumption of a budget deficit, GDP and government spending are fixed. Meanwhile, Ristuningsih stated (2016: 17) that the exchange rate (-1) and exchange rate (-2) in the previous year had a negative influence on foreign debt in the short term.

5. Conclusions

Based on the results of research carried out, the conclusions are as follows:

- Foreign investment, exports and the dollar exchange rate have no direct influence on foreign debt.
- There is Direct influence between imports and foreign debt.
- There is no indirect effect between foreign investments and foreign debt through the dollar exchange rate as an intervening variable.
- Exports and imports have an indirect influence on foreign debt through the dollar exchange rate as an intervening variable.

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