

The Interdependence of Indonesia's Economic Development and Foreign Debt, 2000-2020 Period

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Abstract: Sustainable economic growth is the goal of every country, but low capital in developing countries creates an increase in foreign debt. Budget deficit policy not only has a positive impact on economic growth, but can also have a negative impact. Therefore, the role of foreign debt on economic growth is still a major problem and interesting to be examined.

This study aims to analyze the effect of foreign debt on economic growth and the factors that influence it. The discussion is descriptive and verifiative using secondary data sourced from the Central Statistics Agency (BPS), Bank Indonesia (BI), and International Financial Statistics (IFS) during the period 2000-2020. This study used Two Stage Least Square (TSLS) method which is recursive.

The results showed that the value of exchange rate and GDP had a positive effect on foreign debt, while FDI had a negative effect on foreign debt but not significant. Foreign debt, government spending, lending interest rates and openness together affect economic growth. However, partial foreign debt has a significant negative influence on Indonesia's economic growth.

Keywords: Foreign Debt, Economic Growth, and Foreign Direct Investment.

1. INTRODUCTION

Economic growth is one indicator used to assess the success and goals of development in developing countries on a macro level. Economic progress to growth indicates the success of development, but it is not the only indicator of development success (Todaro and Smith, 2011). Economic growth is one of the country's fundamentals because it refers to how much economic activity affects people's prosperity (Soleh, 2019).

The country's economic activities necessarily require the use of resources. When a country lacks development funds, some turn to foreign debt, though many countries are trapped in foreign debt traps. According to Todaro and Smith (2006), the first reason developing countries are willing to accept assistance is economic problems. Second, assistance is viewed as a tool for leaders in pressing opposition movements to maintain their power.

Government debt (GOD), private debt (PRD), and total debt (DBT), as well as the Indonesian economy (GDP), have all increased almost every year (Fig. 1).

According to Samuelson and Nordhaus (1992), foreign debt can be harmful to income in the long run. Foreign debt

growth reduces national income and raises the proportion of national output that must be set aside to pay off foreign debt. This condition is consistent with the explanation given by Salotti et al., (2012), Zouhaier & Fatma, (2014), Chudik et al., (2018), and Al Kharusi & Ada, (2018) that foreign debt has a negative impact on the economy. Meanwhile, Wibowo (2017) and Barsky et al. (1986) show that foreign debt boosts economic growth.

Foreign debt can have an impact on economic growth, both positively and negatively. The novelty of this research is to analyze comprehensively, not only the impact of the economy on foreign debt but also the impact of private and government debt on Indonesia's economic growth.

2. METHODS

According to dependency theory, developing countries become victims of institutional, political, and economic rigidity both domestically and internationally, trapping them in a cycle of dependence on rich countries (Mareček, & Machová, 2017). This theory also explains why developing countries should reduce their reliance on developed countries in terms of foreign debt and instead implement domestic development policies. Furthermore, in order to reduce debt dependence, developing countries should implement a balanced spending system and avoid budget deficits (Dumairy, J, 1997).

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Fig. (1). shows that the government's debt was greater than the private sector's from 2000 to 2011. Private debt exceeded government debt from 2012 to 2016. Private debt has decreased in comparison to government debt from 2017 to 2020, but its value is nearly the same. It can be seen that the development of foreign debt is in the same direction as the increase in GDP.

According to Saxena, S., and Shanker, I. (2020), increasing GDP can lead to increased debt. This condition can be viewed from two perspectives: the debtor's side, which provides the state with the ability to pay its debts, allowing it to increase its debt, particularly to cover the state budget deficit. Then, the creditor side causes higher creditor confidence to increase their loans. While Imoughele and Ismaila (2014), Lau and Lee (2016), Sa'ad et al. (2017), Tanna et al. (2018), and Knapková et al. (2019) explained that increasing GDP can reduce debt. Whereas an increase in GDP can increase a country's ability to pay its debts without increasing debt in development financing.

According to the classical Theory, foreign debt has a short-term positive impact on economic growth and development. In the long run, foreign debt has little impact due to *Crediting out*, where the economy experiences overhead, which leads to decreased investment, which leads to a decrease in GDP (Barsky, et.al, 1986). The Keynesian Theory also states that increasing the foreign debt-financed budget has a significant impact on economic growth because it increases aggregate demand due to capital accumulation (Eisner, 1989). While the Ricardian model added that foreign debt has no positive impact on economic growth. The increase in foreign debt to finance the government budget deficit will have no effect on economic growth because the effect of increased spending financed by public debt must be paid for in the future by tax increases. (Barro, 1989; & Evans, 1988).

Changes in exchange rates can affect the amount of debt, according to by Imoughele and Ismaila (2014), and Aleme (2019). Depreciation of the domestic currency against the dollar can lead to an increase in debt and vice versa. While Saxena and Shanker (2020); Ahlborn and Schweickert (2018) explain that exchange rates have no effect on debt. In contrast, Abdullahi et al., (2015), stated that exchange rates have significant short-term and long-term dynamics and are negatively related to foreign debt. For Saheed and Sani (2014), Ahmad et al. (2015), and Yien. et al. (2017), debt and exchange rates have a unidirectional relationship.

Furthermore, Imoughele and Ismaila (2014), stated that the increase in foreign direct investment had a significant effect on debt reduction as an alternative in increasing investment needs in building infrastructure and facilities. However, it differs from Saxena, S., and Shanker, I. (2020); and Ahlborn and Schweickert, (2018), who explain that increasing foreign direct investment has no effect on debt.

According to Uddin and Khanam (2017); Tulong and Handayani (2018), government spending influences economic growth, with government spending having a positive effect on economic growth. Bank loan interest rates have a positive effect on economic growth, based on the most recent research by Knapková et al., (2019); Stella Spilioti, (2015); Davcev et al., (2018), and Hatmanu et al., (2020). Furthermore, economic openness has a positive effect on economic

growth based on research by Rizavi et al., (2010); Mercan et al., (2013); Nduka et al., (2013); and Ali & Li, (2016).

The purpose of this research is to investigate the relationship between the Indonesian economy and debt. The analysis technique used is multiple linear regression with the recursive TSLS method. The Estimation of the regression model is carried out through two stages in estimating the impact of foreign debt and other variables on economic growth in Indonesia, namely:

$$GOD_t = \alpha_0 + \alpha_1 GDP_t + \alpha_2 EXC_t + \alpha_3 FDI_t + \varepsilon_t(1)$$

$$PRD_t = \alpha_0 + \alpha_1 GDP_t + \alpha_2 EXC_t + \alpha_3 FDI_t + \varepsilon_t(2)$$

$$DBT_t = \alpha_0 + \alpha_1 GDP_t + \alpha_2 EXC_t + \alpha_3 FDI_t + \varepsilon_t(3)$$

$$EGR_t = \beta_0 + \beta_1 \widehat{GOD}_t + \beta_2 GOE_t + \beta_3 LIR_t + \beta_4 OPN_t + u_t(4)$$

$$EGR_t = \beta_0 + \beta_1 \widehat{PRD}_t + \beta_2 GOE_t + \beta_3 LIR_t + \beta_4 OPN_t + u_t(5)$$

$$EGR_t = \beta_0 + \beta_1 \widehat{DBT}_t + \beta_2 GOE_t + \beta_3 LIR_t + \beta_4 OPN_t + u_t(6)$$

3. DATA

This study describes several factors that can influence the development of government foreign debt (GOD), private debt (PRD), and total debt (DBT), all of which have an impact on Indonesia's economic growth (EGR). Other factors influencing debt and economic growth include the economy (GDP), exchange rate (EXC), foreign investment (FDI), government spending (GOE), lend interest rate (LIR), and economic openness (OPN). The data used are time series data from 2000 to 2020 sourced from the Statistics Indonesia (BPS), Bank Indonesia (BI), and International Financial Statistics (IFS).

4. RESULTS

According to theory and literature studies in various countries, several variables that have an influence on debt and economic growth are the reference in this study to analyze conditions in Indonesia.

4.1. Influence GDP, Exchange Rate and Direct Investment Toward Debt

Economic conditions proxied by GDP, the rupiah exchange rate (EXC), and Foreign Direct Investment (FDI) are thought to be some of the variables that influence debt. The results of processing the influence of these three variables on debt are:

The processing results based on Table 1 show that the variables listed above have an impact on Indonesia's total foreign debt. GDP and exchange rates have a significant effect on government debt, private debt, and total debt, respectively, whereas FDI has a negative but insignificant effect on the three debts.

An increase in Indonesia's GDP can lead to an increase in debt because it gives the country the ability to pay its debts, which encourages it to increase its debt, particularly to cover the state budget deficit. Creditors, on the other hand, are becoming more confident in increasing their loans. These findings are consistent with the work of Saxena, S., and Shanker, I. (2020), but contradict the findings of Imoughele and Ismaila, (2014); Lau and Lee, (2016); Sa'ad et al., (2017);

Tanna et al., (2018); and Knapková et al., (2019) which explained that an increase in GDP can reduce debt.

Increased debt may result from the rupiah's depreciation against the US dollar. This is primarily due to Indonesia's debt, which is denominated in US dollars. This is consistent with the findings of Imoughele and Ismaila (2014), Zata (2017), and Aleme (2019), but contradicts the findings of Saxena, S., and Shanker, I. (2020).

Due to increased government development spending and private investment in Indonesia, foreign direct investment has had little impact on debt reduction. This result is in the same direction as but has a significant effect on Imoughele and Ismaila's (2014) research, but in the opposite direction as Saxena, S., and Shanker, I. (2020) and Aleme, (2016), which stated that foreign direct investment has a positive effect on debt.

4.2 Impact Debt and Influence Government Expenditure, Interest Rate and Openness on Economic Growth

The impact of debt and other variables thought to influence economic growth are including government spending, interest rates on bank loans, and economic openness. The following are the impacts of debt and some of these variables on debt:

Table 2 demonstrates that foreign debt and government spending, interest rates, and economic openness simultaneously have a significant impact on economic growth. Partiality, Foreign debt, government spending, and interest rates all have an impact on economic growth, but economic openness has not yet had a significant impact on economic growth in Indonesia.

Increasing total debt, government debt, and private debt can all have a negative impact on economic growth. The greater the debt, the greater the burden of loan interest rates and principal installment payments. As a result, the increase in debt is not optimal for the government to use to fund the provision of development facilities and infrastructure in order to boost output growth. Similarly, the private sector's use of debt has not been optimal in terms of increasing production growth. This is consistent with the findings of Salotti et al., (2012), Aleme, (2014), Chudik et al., (2018), and Al Kharusi & Ada, (2018). (2018). However, that opposed to the findings of Stella Spilioti, (2015) and Wibowo (2017).

Increasing government spending has the potential to boost Indonesia's economic growth. Routine spending has an effect on increasing consumption, which can increase aggregate demand and thereby increasing output. Development spending is used to invest in facilities and infrastructure for economic activity. These findings are consistent with the findings of Olubokun et al., (2016), Uddin & Khanam (2017). Handayani and Tulong (2018). In contrast to the findings of Oladele et al., (2017) and Gifari & Gifari Hasnul (2015).

Rising bank loan interest rates slowed Indonesia's economic growth. This is due to an increase in interest rates, which reduces business people's desire to invest, because loan interest becomes the company's operational costs in producing its output. This is consistent with the findings of Knapková

Table 1. Results of Independent Variable Regression of Indonesia's Debt for the 2000-2020 Period.

Independent Variable	Dependent GOD		Dependent PRD		Dependent DBT	
	Coef	Prob	Coef	Prob	Coef	Prob
C	-29,465.90	0.0781*	-88,232.65	0.0004***	-118,141.9	0.0007***
GDP	0.07932	0.0027***	0.0840	0.0085***	0.1638	0.0009***
EXC	9.1282	0.0002***	13.0562	0.0324**	22.1923	0.0000***
FDI	-0.2333	0.7352	-0.2362	0.7849	-0.0016	0.9989
R ²	0.9332		0.9399		0.9596	
R ² Adj	0.9231		0.9286		0.9520	
F	77.07		83.39		126.26	
Prob	0.0000***		0.0000***		0.0000***	

Source: Data Processing.

Table 2. Results of Independent Variable Regression on Indonesia's Economic Growth for the 2000-2020 Period.

Independent Variable	Dependent EGR		Dependent EGR		Dependent EGR	
	Coef	Prob	Coef	Prob	Coef	Prob
C	11.4833		10.3359	0.0001***	10.8171	0.0000***
\widehat{GOD}	-3.26E-05	0.0002***				
\widehat{PRD}			-2.34-05	0.0002***		
\widehat{DBT}					-1.36-05	0.0002***
GOE	2.35-05	0.0338**	2.09-05	0.0471**	2.09-05	0.0397**
LIR	-0.2882	0.0016***	-0.3004	0.0011***	-0.3004	0.0013***
OPN	0.0041	0.7352	0.0041	0.6797	0.0041	0.7745
R ²	0.7632		0.7671		0.7665	
R ² Adj	0.7000		0.7049		0.7042	
F	12.0851		12.35		12.31	
Prob	0.0001***		0.0001***		0.0001***	

Source: Data Processing.

et al., (2019); Stella Spilioti, (2015); Davcev et al., (2018); and Hatmanu et al., (2020).

Economic openness has no effect on Indonesia's economic growth. This demonstrates that the more open the economy, the greater the volume of international trade transactions, in which Indonesia's exports increase but are followed by increasing imports, resulting in low net exports. These research results are consistent with the results of Rizavi et al., (2010), Mercan et al., (2013), Nduka et al., (2013), and Knapková et al., (2013). (2019). This, however, contradicts the findings of the research by Mehrara & Firouzjaee, (2011) and Bibi et al., (2014).

5. CONCLUDING REMARKS

The capacity of the economy influences Indonesia's ability to pay off foreign debt, both public and private. This demon-

strates that as GDP grows, so does the ability to pay mortgage and interest debt, and creditors' trust in Indonesia as a debtor grows. Furthermore, it is influenced by the rupiah exchange rate against the US dollar; a depreciating domestic currency against the US dollar can increase Indonesia's foreign debt.

Foreign debt has a positive effect on GDP but a negative effect on Indonesia's economic growth. This demonstrates that foreign debt is not entirely used for investment but is also used to pay principal and interest on loans. Meanwhile, routine government spending and development spending can increase aggregate demand and thus national income in the short term. Long-term development spending or government investment can boost Indonesia's economic growth. In the meantime, since bank loan interest rates have a significant negative impact on economic growth, efforts to boost eco-

economic growth can be made by lowering interest rates. A reduction in loan interest rates can encourage investment, resulting in a rapid increase in goods production. Furthermore, the level of economic openness has not resulted in any significant improvement in Indonesia's economic growth, due to the rise in goods exports followed by an almost equal increase in imports.

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