

# Macroeconomic Influences and Policy Impacts on Indonesia's Foreign Debt Accumulation

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### Abstract: Macroeconomic Influences and Policy Impact on Indonesia's Foreign Debt Accumulation

The issue of foreign debt as a source of development financing (budget deficit) has become a classic debate, both at the theoretical and practical levels. However, foreign debt will become a problem if the debt is not managed properly. This study aims to determine the effect of exports, foreign exchange reserves, and exchange rates on foreign debt in Indonesia. The novelty of this research is that the population in this study is the entire time series data of foreign debt, exports, foreign exchange reserves, and the exchange rate of the rupiah against the US dollar. The future impact of this study is to help improve public understanding of the urgency of the determinants and influence of foreign debt in Indonesia for the government. This research is a type of quantitative descriptive research. The type of data used is data sourced from secondary data in the form of cross-section covering the country of Indonesia and time series with a period of 30 years so that there are 31 samples that are quantitative. The research was conducted by means of library research. Data collection techniques are carried out by studying books that are relevant to the object of research or other sources that support library study research conducted by researchers in conducting library studies. Based on the regression result, it can be concluded that there is a simultaneous significant effect of the independent variables in the form of Exports, Foreign Exchange Reserves, and the Rupiah Exchange Rate against the USD on the Foreign Debt with an R-Squared value of 92.11 percent. Then, based on the partial Test, export has a negative and significant effect on the foreign debt. Meanwhile, each foreign exchange reserve and Rupiah exchange rate have a positive and significant effect on the Foreign Debt. The policy implications of these findings can include government efforts in the hope of finding other alternatives to increase Indonesian state development funds other than relying on foreign debt. For example, it can be done by increasing export activities abroad and reducing import activities. Furthermore, maintaining the stability of the exchange rate so that it does not weaken further because it can result in a decrease in the value of the US dollar, making foreign debt in Indonesia increasingly accumulate.

**Keywords:** Foreign Debt; Foreign Exchange Reserves; Exchange Rates; Export



## INTRODUCTION

The rise in external debt in many countries has invigorated a debate about the costs of escalating public and private debt. High and unsustainable levels of external debt can be especially risky for developing countries, exposing them to exchange rate fluctuations, sudden stops in capital flows, and sharp capital outflows, which may precipitate a banking or currency crisis (Qureshi and Liaqat, 2020).

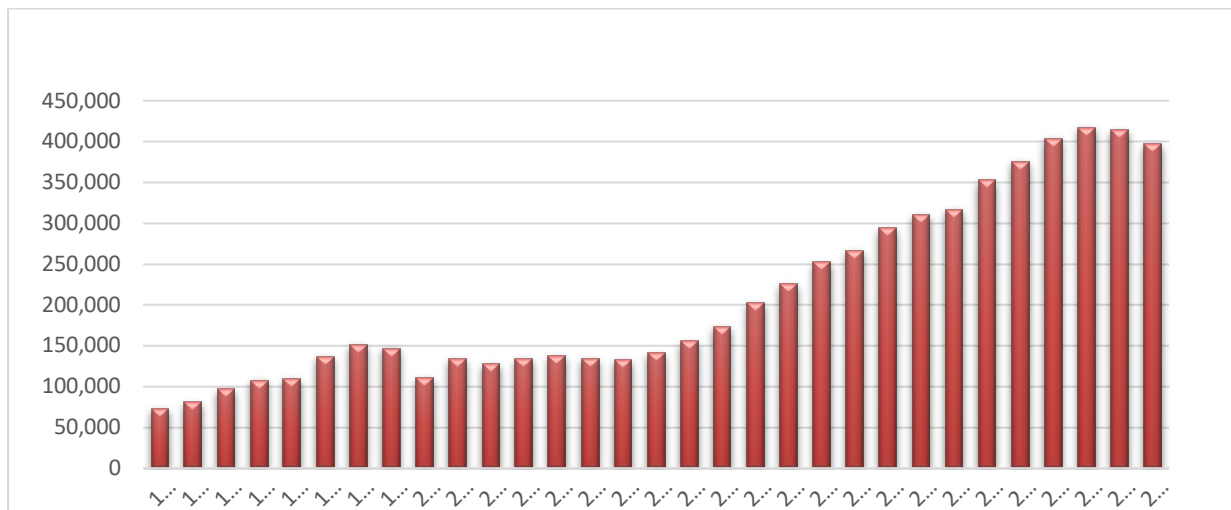
Development requires substantial financing. In a developing country like Indonesia, the need for foreign sources of funds, such as foreign debt, becomes very important. This is because government savings have not been able to cover the need to finance development in the country. The economic development of a country is a process that must be carried out by a nation to fulfill a prosperous social standard of living in the country. But, not all countries can easily realize this. On the one hand, a country's economic development requires relatively large funds. On the other hand, efforts to mobilize funds to finance this development have experienced obstacles.

The issue of foreign debt as a source of development financing (deficit budgeting) has become a classic debate, both at the theoretical and practical levels. In Rostow's thinking, the position of foreign debt is considered the missing link in the chain of economic development. In the practical world, foreign debt is a vicious cycle in development, especially in developing countries. Several times the world has experienced a severe debt crisis, for example in the 1930s, 1980s, and 1990s until today. The resolution of foreign debt is still a complex and complicated problem to solve. In the explanation of conventional theories, there are at least two theories that can explain the urgency of foreign debt for development financing. The first theory says that foreign debt, like foreign investment, is needed to close the saving gap in the terminology of the Neo-Classical group. So in this case, foreign debt is needed because domestic savings are insufficient to finance development. The second theory explains the phenomenon of foreign debt from the perspective of the balance of payments, where it is one of the accounts on the capital account, which serves to accommodate the interests of the autonomous current account. So if the current account is in deficit, it will be compensated with foreign debt in the capital account. In this context, foreign debt can function as gap filling, which is filling the gap caused by the current account deficit (Hunt, 2007).

However, foreign debt becomes a problem when it is not managed properly. The large foreign debt and the threat of a government budget deficit have a negative impact on the

economy. This is because tax revenues and government spending are not comparable. It can be seen from the low tax revenue, that government spending is still large because the need to import capital goods is still high (Crouch, 1997).

Indonesia uses foreign debt to accelerate its economic development. Foreign debt is included as government revenue in the state budget each year. The source of Indonesia's loans has been countries and multilateral aid agencies that are members of the Consultative Group for Indonesia or CGI (formerly Inter Governmental Group on Indonesia, IOGI). Foreign debt is an inseparable element of the development financing process for Indonesia and other developing countries. Foreign debt in Indonesia has played an important role in covering the budget deficit and current account deficit, but in doing so, the mobilization of funds from abroad must be done properly to avoid principal and interest installments that are due more than new loans. Most developing countries utilize foreign debt to support their development, although not a few countries are trapped in a foreign debt trap, where the deficit in the budget is covered by foreign loans, resulting in an increase in foreign debt (Harinowo, 2002). In some records, Indonesia began to carry out foreign debt starting during the old order period to increase financial support to pay off the shortage of development funds that could not be met domestically (Nugraha et al., 2020). The following is the development of foreign debt in Indonesia, which has increased every year.



Source: Indonesia Bank (processed)

Figure 1. The Development of Foreign Debt in Indonesia for the Period 1992 - 2022 (Million US\$)

Based on the graph data above, that foreign debt has fluctuated but there has been an increase. This increase causes higher foreign debt. Based on Bank Indonesia (BI) data that the amount of Indonesia's foreign debt continues to increase every year, in 2016 it increased by

2.98 percent, namely 320 million US \$ compared to the previous year, namely in 2015 amounting to 310.73 million US \$, in 2016 the government made more Indonesian development. As a result of the economy that has not been fully stabilized, the government must take more loans abroad. Experienced an increase again in 2017, which amounted to 10.14 percent, then in 2018 it increased by 6.51 percent and in 2019 it increased by 6.94 percent until in 2020 it increased by 1.17 percent, amounting to 406.159 million US \$.

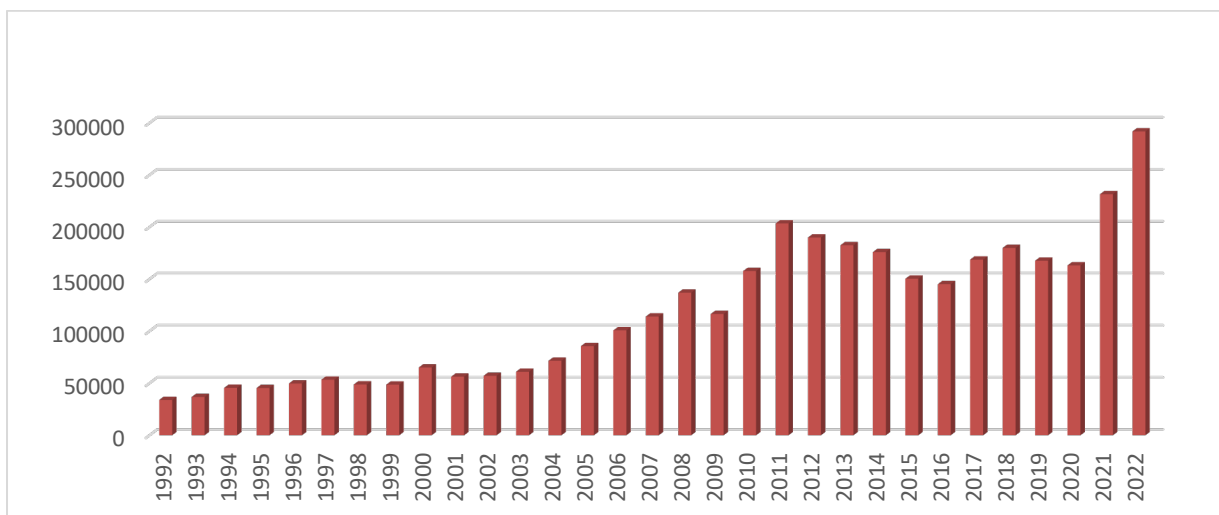
Indonesia's foreign debt growth in 2014 accelerated by 10.1% compared to 5.4% in 2013. This was driven by the higher need for external financing. The foreign debt position at the end of December 2014 was recorded at 293.0 billion US dollars, consisting of public sector foreign debt of 129.7 billion US dollars (44.3% of total external debt) and private sector foreign debt of 163.2 billion US dollars (55.7% of total external debt). With this position, the ratio of foreign debt to GDP was 33.0%, an increase compared to the previous year's ratio of 29.0% (Bank Indonesia, 2014). The value of foreign debt as of the end of 2015 had reached 310.722 billion US dollars or equivalent to Rp4,200 trillion. The value of foreign debt in 2015 grew by 5.8% and the government made a significant contribution because its debt growth reached 11.26% in a year to 137.746 billion US dollars (Darmawan, 2022).

The existence of foreign debt affects the Indonesian state. In the short term, foreign debt can have an impact on economic growth. But, according to Burnside & Dollar (2000), foreign aid contributes positively to economic growth, only in good policy environments. A country has good economic performance indicators measured by high economic growth (Economic growth can be measured by Gross Domestic Product (GDP), factors that can affect the increase in foreign debt, one of which is national income as measured by GDP. GDP at constant prices shows the added value of goods and services calculated based on current prices in one particular year as the base year, namely 2000. A higher national income in a country will improve the welfare of the community so that it can reduce foreign debt (Devi, 2017).

There are several factors that affect foreign debt, including exports, foreign exchange reserves, and exchange rates. International trade activities such as exports and imports, is the third macroeconomic variable that affects Indonesia's foreign debt in this study. One of the reasons for the high foreign debt of most developing countries is the low value of exports and the high value of imports, which makes the country's foreign exchange reserves, one of which is used to pay off foreign debt, increasingly depleted. This has an impact on the country's ability to pay off foreign debt in a timely manner, thus increasing the burden of foreign debt in the long run (Tambunan, 2011).

The growing foreign debt has caused the government to take on new foreign debt but has not made payments on previous debts that have matured. Some economists argue that the policy of taking on new debt to cover the previous year's debt has brought Indonesia into a debt trap and has the potential to experience a prolonged debt crisis (Purwanti et al., 2015). Dependency theory explains that foreign debt increases economic growth in the short term, but inhibits economic growth in the long term. This is because in the long run the debt may exceed the solvency of the recipient country, and the interest costs of foreign debt may discourage domestic and foreign investment and ultimately inhibit growth (Yuniarti, 2005).

The capacity of a country to repay foreign debt is closely related to fluctuations in the country's international trade. According to (Tambunan, 2011) high foreign debt is caused by a high trade deficit. The lower the value of exports and the higher the value of imports by a country will have an impact on increasing the burden of foreign debt so that it can weaken the country's capacity to repay its foreign debt in the long run.



Source: Indonesia Bank (processed)

Figure 2. The Development of export in Indonesia for the Period 1992 - 2022 (Million US\$)

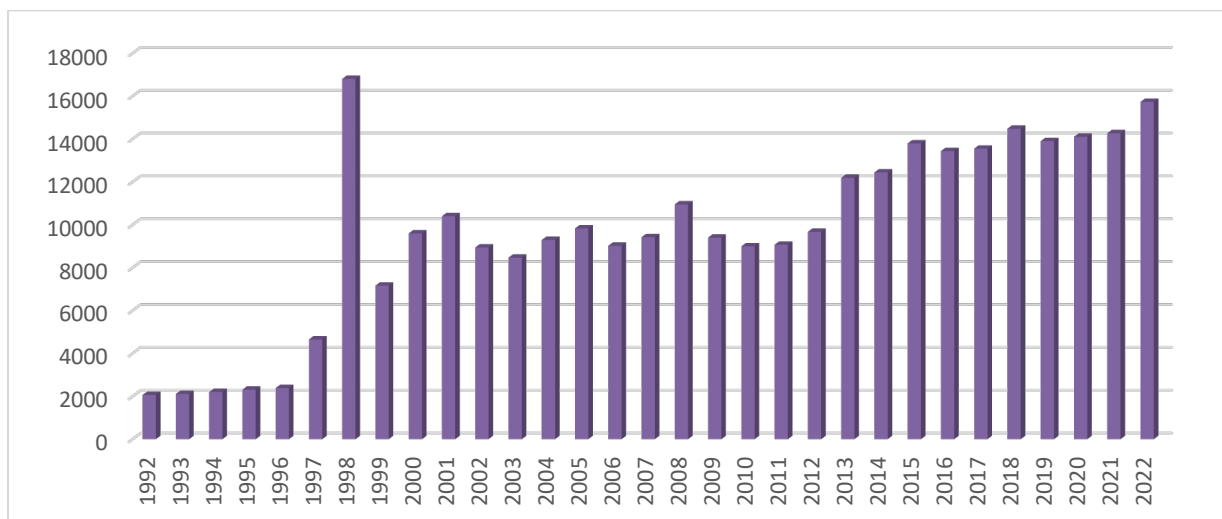
Based on the graph, it can be seen that the value of Indonesian exports from year to year fluctuates, although overall the value of Indonesian exports tends to increase. The highest increase occurred in 2022 worth US \$ 163,191.8 million then in the following years there was a decline, where in 2023 the export value amounted to US \$ 171,519.7 million. Indonesia's difficulty in financing state expenditure is accompanied by foreign debt that is increasing every year due to changes in the LIBOR (Libor Inter-Bank Offered rate) interest rate as an international interest rate. The rupiah exchange rate is a comparison of the value or price of the rupiah currency with other currencies. Trade between countries where each country has its

own means of exchange requires a comparative figure of the value of another currency (Salvatore, 2008).

According to Saputro and Soelistyo (2017) an increase in foreign debt is influenced by an increase in foreign exchange reserves, if the government wants the value of foreign exchange reserves to increase, the debt ratio will also increase. Then according to Bank Indonesia, foreign exchange is divided into three systems, namely the foreign exchange control system, the semi-free foreign exchange system, and the free foreign exchange system. The more forex or foreign exchange owned by the government and residents of Indonesia, the greater the country's ability to conduct international economic and financial transactions.

The third macroeconomic variable of the size of the country's foreign exchange reserves also depends on the exchange rate of the country's currency. The higher the exchange rate of a country, the stronger the economy, so that it can obtain more foreign exchange reserves. Foreign debt payments will also follow the exchange rate, the following can be seen in the development of exchange rates in Indonesia.

The current international monetary system is often described as a non-system of floating exchange rates in which some countries attempt to maintain fixed exchange rates or to manage their exchange rate movements mainly against the US dollar by accumulating exchange rate reserves in the form of internationally traded assets (Cova *et al.*, 2016).



Source: Indonesia Bank (processed)

Figure 3. The Development of exchange rate in Indonesia for the Period 1992 - 2022 (Rupiah)

Based on data from the Central Bureau of Statistics, the exchange rate of the rupiah against the US \$ in 2015 was IDR 13,795 per US \$, and in 2016 it was IDR 13,436 per US \$ or

strengthened by 0.60 percent compared to 2015. Then in 2017, it weakened again by 0.54 percent, and in 2018 it continued to weaken by 6.40 percent until in 2019 it strengthened by 0.63 percent. The weakening of the exchange rate was initiated by the trade war between the United States and China and exacerbated by the crisis that occurred in Argentina, then until 2020, it weakened again by 2.70 percent. So the Rupiah exchange rate from 2015 to 2020 fluctuates with a trend that tends to continue to increase. This illustrates that the Rupiah exchange rate continues to depreciate in the same period as the increase in foreign debt.

The novelty of this research is to provide an overview of how exports, foreign exchange reserves and the rupiah exchange rate on foreign debt and the location of research. The difference between previous research and current writing is in the types of variables used in this study. Another difference is in the analysis technique used using OLS (ordinary least square) analysis with time series data with a total of 30 years to get 31 samples. This research is also expected to help improve public understanding of the urgency of the determinants and influence of foreign debt in Indonesia for the government. This could involve discussing how debt can be used to fund infrastructure projects that improve public services or how excessive debt can lead to higher taxes or reduced government spending on social programs. Budget deficits need to be minimized by increasing foreign exchange and government savings in order to reduce the need to attract new foreign debt, the way is to encourage an increase in the surplus in net exports and encourage increased foreign investment. The government also needs to direct foreign debt to be used in the productive sector, not to the consumer sector alone, for example, to fund infrastructure development which is expected to have a direct impact on economic growth and produce reciprocal outputs that are greater than the level of debt spent so as to prevent the increase in fiscal deficits that occur continuously.

## **LITERATURE REVIEW**

External debt is an important source of financing economic growth for developing countries through capital accumulation, infrastructure development, and human resource development. (Ramzan and Ahmad, 2014). Foreign debt has a modest relationship with the state deficit. An increase in national debt over time equals a budget deficit. The government's foreign debt tends to increase every year (Samuelson & Nordhaus, 1992).

According to the Keynesian theory, a government budget deficit financed by foreign debt will increase income and welfare so that the increase in income will increase consumption. A government budget deficit financed by foreign debt means that the current tax burden is



relatively lighter, which will then lead to an increase in disposable income. Increased disposable income, ready to be spent will increase consumption and the overall demand side. If the economy is not yet at full employment, an increase in the demand side will lead to an increase in production and subsequently increase national income. Three elements influence a country's capacity to repay debt; the domestic savings ratio, the link between the marginal productivity of the resources borrowed and the interest rate on the loan, and the status of the nation's import and export payments. Earnings, or more accurately, the trade surplus or deficit. Another argument for the debt's positive nature is that, over time, as an economy grows and GDP rises, the debt-to-GDP ratio will eventually decline (Krugman, 1988).

Krugman, (1988) defines debt overhang as the situation in which the expected repayment on external debt falls short of the contractual value of debt. If a country's debt level is expected to exceed the country's repayment ability with some probability in the future, expected debt service is likely to be an increasing function of the country's output level. Thus, some of the returns from investing in the domestic economy are effectively "taxed away" by existing foreign creditors. Investment by domestic and foreign investors is discouraged and economic growth is also slowed. In other words, Krugman's hypothesis states that debt overhang is partly due to the burden of foreign debt and that investment will be slow resulting in poor growth performance (Cholifihani, 2008). External debt as a source of development financing (deficit budgeted) has become a classic debate, both at the theoretical and practical levels. In Rostow's thinking, the position of external debt is considered the missing link in the economic development chain. In the practical world, external debt is a vicious circle in development, especially in developing countries.

Several factors affect foreign debt, including foreign exchange reserves, exports, and exchange rates. The most important factor determining exports is the ability of a country to produce goods that can compete in foreign markets. Exports will directly affect national income. Heberler's theory is that the price of goods in the market is not only due to the use of labor, but is a combination of the use of factors of production (land and capital). Heberler uses the concept of opportunity cost or alternative, which can be explained by the possibility curve to see the occurrence of trade between two countries, and at the same time show the benefits of international trade. When foreign exchange reserves increase, foreign debt will increase. Because strong foreign exchange reserves can support foreign debt as state financing because another function of foreign exchange reserves is to pay state financing (Satrianto, 2015).



Exchange rate fluctuations affect the value of domestic currencies affecting foreign currencies and as a means of payment in international trade activities and foreign debt payments. If the value of the domestic currency decreases, the cost of debt to be incurred by the country will be greater even though the amount of debt in foreign currency borrowed by the country is fixed. Basdevant & Wet (2000) mentioned that one of the problems in developing countries is the possibility of an unstable relationship between the exchange rate regime and external debt. An economy can have an exchange rate level that changes over time depending on what exchange rate regime is set. A poor exchange rate regime can worsen the sustainability of the country's external debt

## METHODS

This research is a type of quantitative descriptive research that analyzes numerical data processed by statistical methods. The method used in this research is descriptive research where descriptive research describes a symptom, event, and event that occurred at the time of the research (Sugiyono, 2013). The type of data used in this study is data sourced from secondary data in the form of cross section covering the country of Indonesia and time series with a period of 30 years which is quantitative. Data sourced from various official documents such as Bank Indonesia (BI), the Central Statistics Agency (BPS), and other official documents in this study used data for 30 years (1992-2022). The data collection technique in this study is to study books that are relevant to the object of research or other sources that support research into literature studies conducted by researchers in conducting literature studies.

The method of analysis used in this study is multiple regression analysis with statistical tools through the help of the E-Views program. The regression equation model appropriate for this study involves the use of time series data and combines four variables.

$$FD = \alpha + \beta_1 EXP + \alpha + \beta_2 FER + \beta_3 EXCR + \varepsilon \dots \dots \dots [1]$$

With FD as Foreign debt in units of (US Dollars),  $\alpha$  as constant,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  as partial regression coefficients, EXP as exports in units of (US Dollars), FER as foreign exchange reserves, EXCR as exchange rate in units of (Rupiahs)  $\varepsilon$  as disturbance/error in the time series date t shows time

However, before determining the analysis of regression results, the research model must meet the classical assumption test, including the normality test, autocorrelation test, heteroscedasticity test and multicollinearity test. Then, a hypothesis test consisting of F test, t test and  $R^2$  was carried out. The research framework used in this study can be seen in the

figure 1.

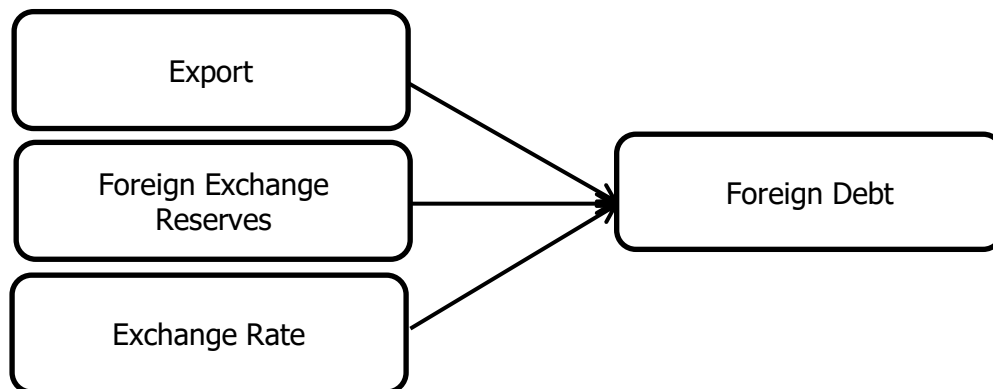


Figure 1. The research framework

Based on previous theories and studies, the following hypotheses can be made: Based on previous theories and studies, the following hypotheses can be made:

H0:  $b_1 = 0$ , There is no significant effect between export variables on foreign debt.

H1:  $b_1 \neq 0$ , there is a significant effect between export variables on foreign debt.

H0:  $b_2 = 0$ , There is no significant effect between the foreign exchange reserve variable and foreign debt.

H2:  $b_2 \neq 0$ , there is a significant effect between the foreign exchange reserve variable on foreign debt.

H0:  $b_3 = 0$ , There is no significant effect between the Rupiah exchange rate variable and foreign debt.

H3:  $b_3 \neq 0$ , there is a significant effect between the Rupiah exchange rate variable on foreign debt.

The real level used is  $\alpha = 0.1$ . The value of F count and t-count is compared with F-table and t-table and its terms are as follows: If F-count and t-count  $\geq$  F-table and t-table, then H0 is rejected, H1 is accepted, and vice versa.

## RESULT AND DISCUSSION

Based on the results of multiple linear regression analysis in the table above, the regression model is obtained as follows:

$$FD = 48573.238 - 0.466325EXP + 2.619419FER + 4.011819EXCR \dots \dots \dots [1]$$



Based on the multiple linear regression model above, the following information is obtained. The constant is 48573.238 which means that if there is no change in the value of the independent variables (Exports, Foreign Exchange Reserves, and Rupiah Exchange Rate against USD) then the dependent variable (Foreign Debt) value is 48573.238. The regression coefficient on the Export variable is 0.466 and negative, meaning that if the Export variable increases by 1 point significantly, the other independent variables are constant. Then the export variable will decrease the value of the Foreign Debt variable by 0.466.

Table 1. Multiple Linear Regression Results

Variable	Coefficient	Std.Error	t-Statistic	Prob.	Significance	Support for Hypotesheses
C	48573.24	15386.09	3.156958	0.0039		
EXP	-0.466325	0.236690	-1.970192	0.0592	Significant	Yes
FER	2.619419	0.366919	7.138959	0.0000	Significant	Yes
EXCR	4.011819	1.961815	2.044953	0.0507	Significant	Yes

Source: Secondary data output after processing, 2024; (Helva, 2024).

The regression coefficient on the Foreign Exchange Reserves variable is 2.619 and positive, which means that if the Foreign Exchange Reserves variable increases by 1 point significantly, the other independent variables are constant. Then the Foreign Exchange Reserves variable will increase the value of the Foreign Debt variable by 2.619. The regression coefficient on the Rupiah to USD Exchange Rate variable is 4,011 and positive, meaning that if the Rupiah to USD Exchange Rate variable increases by 1 point significantly, the other independent variables are constant. Then the Rupiah Exchange Rate variable against the USD will increase the value of the Foreign Debt variable by 4.011.

## 1. The Effect of Export on Foreign Debt

Exports have a negative and significant effect on foreign debt in Indonesia. The existence of a significant influence between exports on foreign debt indicates that foreign debt is influenced by exports. This study is in line with the hypotheses. This is because if exports increase, the source of state revenue will also increase. After all, increased exports are characterized by higher exports than imports. Exports are revenue for a country and imports are expenses for a country. Therefore, an increase in net exports will increase a country's income. This condition will certainly reduce a country's dependence on international aid funds, one of which is debt. In other words, increased net exports will reduce foreign debt. Exports have a negative and significant effect on foreign debt in Indonesia primarily because increased export revenues enhance the country's ability to generate foreign exchange. This boost in

foreign exchange reserves allows Indonesia to finance its debt repayments and reduce reliance on external borrowing. Higher export earnings strengthen the country's balance of payments, reducing the need for additional foreign debt to cover deficits. Consequently, as exports grow, the need for external financing diminishes, leading to a reduction in foreign debt levels.

Exports play an important role in the expansion of trade in a country. The foreign exchange earned goes into foreign exchange reserves. Increased foreign exchange reserves will provide benefits for the State, namely being able to pay larger State debts. If the development of exports is increasing, it will result in a surplus in the trade balance and the foreign exchange obtained can be used to pay interest expenses and installments of State debt (Cahyaningrum et al., 2022). Based on research Fitria et al., (2021), exports have an influence on foreign exchange reserves, the higher the exports, the inflow of foreign exchange from exports will also increase and will provide economic stability for the country and can pay debts.

The growth of Indonesia's export value in 1992-2022 fluctuated. In 2006-2008 the value of exports experienced a positive development, but in 2009 it decreased by 14.97% due to the global financial crisis. In the next two years, Indonesia's exports increased. From 2012 to 2016 the value of exports decreased due to the decline in oil prices and several other commodities and mining goods, although in terms of volume it continued to increase. Exports increased again in 2017 and 2018 where the value reached US\$180,012.7 million in 2018. The value of exports fell again in 2019 and 2020 by 6.85 percent and 2.68 percent due to the COVID-19 pandemic. In 2021-2022, it continued to increase, even in 2022 it increased to 26.03 percent, which was recorded as the largest increase in export value (Rakhmawan, 2022). The development of exports in the last 15 years has indeed experienced fluctuations with a downward trend, this is also reinforced by the Central Statistics Agency (BPS) which reports that the value of exports has experienced low fluctuations. Indonesia must be more active in encouraging exports so that the ratio of foreign debt can be reduced. The poor export promotion is considered because the government is slow in diversifying export destination countries. In addition to the diversification of destination countries, it is also caused by the diversification of export products that are also less alert. These findings suggest that the chosen variables significantly impact foreign debt in Indonesia, as hypothesized. An increase in exports leads to a decrease in foreign debt, which aligns with the hypothesis that a strong export sector helps repay debt.

## **2. The Effect of Foreign Exchange on Foreign Debt**

Then, foreign exchange reserves have a negative and significant effect on foreign debt in Indonesia. This is shown by the probability value of foreign exchange reserves (0.0000)

against external debt  $< 0.10$ . The positive and significant influence between foreign exchange reserves and external debt means that external debt is influenced by foreign exchange reserves. This study is in line with the hypotheses. This means that external debt is influenced by foreign exchange reserves. This condition is caused by an increase in foreign exchange reserves, the foreign income or foreign assets of a country will also increase. This increase will certainly increase the ability of a country to conduct international transactions. Therefore, foreign exchange reserves therefore, an increase in foreign exchange reserves will increase the ownership of foreign assets and the ability of a country to conduct international transactions. as well as a country's ability to conduct international transactions that dependence on debt can decrease. Foreign exchange reserves have a positive and significant effect on foreign debt. So if foreign exchange reserves increase, foreign debt will also increase. Foreign exchange reserves have a negative and significant effect on foreign debt in Indonesia because they serve as a buffer that enhances the country's ability to manage and repay its external obligations. When a country accumulates substantial foreign exchange reserves, it gains greater financial stability and credibility in international markets. These reserves can be used to meet debt service requirements, reducing the need for new external borrowing. Consequently, higher reserves mean that Indonesia can rely more on its own resources to manage debt repayments, thereby lowering the overall level of foreign debt.

Moreover, ample foreign exchange reserves signal economic strength and sound financial management, which can lead to improved investor confidence and better credit ratings for the country. This positive perception reduces the cost of borrowing and the reliance on external debt by making it easier for Indonesia to access international financial markets on more favorable terms. Additionally, with substantial reserves, Indonesia is better equipped to manage currency volatility and economic shocks, reducing the necessity to incur additional foreign debt as a precautionary measure. Thus, the accumulation of foreign exchange reserves directly contributes to a decrease in the level of foreign debt.

According to Saputro and Soelistyo (2017) an increase in foreign debt is influenced by an increase in foreign exchange reserves, if the government wants the value of foreign exchange reserves to increase, the debt ratio will also increase. Increasing foreign exchange reserves and making them strong so that they can support or pay the country's debt is one of the functions of foreign exchange reserves. That is, the existence of sizable foreign exchange reserves in a country can facilitate the entry of investment or debt guaranteed by the amount of foreign exchange reserves, thereby increasing the possibility of other countries investing or

providing debt.

Foreign exchange reserves in 1990-2016 showed that foreign exchange reserves from year to year experienced an increasing trend originating from foreign debt or export activities (Dianita & Zuhroh, 2018). In 1990-2020 foreign exchange reserves in Indonesia fluctuated every year. The highest increase in foreign exchange reserves was in 2018 which was equivalent to foreign debt payments. The increase in foreign exchange reserves was due to investor confidence and supported by increased liquidity in the global financial market. Foreign exchange reserves decreased in 2019 due to Bank Indonesia's decision to meet the high demand for dollars to repay sovereign debt (Wijayanto & Engelina, 2022).

### **3. The Effect Of Exchange Rate on Foreign Debt**

Based on the results of the analysis, it can be concluded that the Rupiah exchange rate has a positive and significant effect on foreign debt, this is shown by the probability value of the Rupiah exchange rate (0.057) on foreign debt  $< 0.10$ . The existence of a positive and significant influence between the Rupiah exchange rate and foreign debt means that foreign debt is influenced by the Rupiah exchange rate. This study is in line with the hypotheses. Indonesia experiences the risk of being affected by the exchange rate on foreign debt which is quite large because foreign debt is in the form of foreign currency both in the receipt of foreign debt and payment of foreign debt. An appreciation of the Rupiah exchange rate against the US Dollar will result in Indonesia's foreign debt decreasing because Indonesia pays the foreign debt in foreign currency in accordance with agreements with lending countries or institutions, and vice versa. The risk of exchange rate fluctuations not only affects foreign debt but also burdens the state budget and the national budget.

Furthermore, based on the regression results, the probability value of the rupiah exchange rate is 0.0507. This value is less than 0.10, then for the t-calculation value, which is 2,045 smaller than the t-table (1.70329), it can be concluded that the Rupiah Exchange Rate variable has a positive effect on the Foreign debt variable. So the third hypothesis, H3: the variable of the Rupiah Exchange Rate against the USD has a partially significant effect on the variable of Foreign debt is "accepted". The exchange rate affects the country's economy, the deterioration of the exchange rate will be the starting point of the crisis so that the exchange rate becomes vulnerable.

The Rupiah exchange rate has a positive and significant effect on foreign debt in Indonesia due to the impact of currency valuation on debt servicing costs. When the Rupiah depreciates against foreign currencies, the value of Indonesia's foreign-denominated debt

increases in terms of the local currency. This means that more Rupiah is required to service the same amount of foreign debt, effectively increasing the debt burden. As a result, a weaker Rupiah leads to higher debt servicing costs, making it more challenging for Indonesia to manage its foreign debt levels.

Another cause is the influence of exchange rate fluctuations on investor confidence and borrowing conditions. A stable or appreciating Rupiah can boost investor confidence, leading to more favorable borrowing terms and conditions for Indonesia. Conversely, a depreciating Rupiah can raise concerns about the country's economic stability, prompting lenders to demand higher interest rates to compensate for increased risk. This scenario can lead to higher costs of new borrowing and refinancing existing debt, thereby exacerbating the overall foreign debt situation. Therefore, the exchange rate movements directly affect the cost and feasibility of managing foreign debt. Additionally, the Rupiah exchange rate impacts the balance of payments and trade dynamics, which in turn influence foreign debt levels. A weaker Rupiah can make Indonesian exports cheaper and more competitive globally, potentially improving the trade balance and generating more foreign exchange earnings. However, if the country relies heavily on imported goods and services priced in stronger foreign currencies, a depreciating Rupiah can lead to a worsening trade deficit. This deficit might necessitate additional foreign borrowing to finance the gap, thereby increasing the foreign debt. Hence, the exchange rate's effect on trade and balance of payments is a crucial factor in the relationship between the Rupiah exchange rate and foreign debt.

If the exchange rate changes every year, one of them will have an impact on foreign debt because the value of the loan is calculated in foreign currency. If the rupiah exchange rate decreases against the US dollar, the debt to be paid will swell and will burden the budget. Then the budget deficit will increase due to soaring debt payments (Satrianto, 2015). Meanwhile, according to Cahyaningrum et al. (2022), this foreign debt is caused by changes in economic conditions in a country, for example, during an economic crisis, it will cause changes in the rupiah exchange rate which will weaken further. As a result, the devaluation of the rupiah will cause an increase in foreign debt because Indonesia pays off its foreign debt in foreign currencies (Widharma et al., 2013). Furthermore, Ibrahim et al. (2019), at the time when the rupiah exchange rate depreciated, while at the same time, the country was making foreign loans. So this condition will cause an increase in the country's foreign debt. This is because, at the time of payment, the principal installment and loan interest are calculated in the currency of the borrower's country.



In 1997-2016 the exchange rate fluctuated every year. The rupiah exchange rate weakened in 1998 due to the monetary crisis, so Indonesia was unable to deal with economic turmoil. Then in 2001, the rupiah exchange rate increased due to an increase in fuel prices, in 2002-2003 the exchange rate weakened, in 2004-2009 the exchange rate increased due to an increase in US dollar interest and an increase in world oil prices. In 2010 and 2011 many foreign funds entered Indonesia so the exchange rate weakened (Sadim, 2019).

## **CONCLUSION**

Exports have a negative and significant effect on external debt. Meanwhile, foreign exchange reserves and the rupiah exchange rate have a positive and significant effect on foreign debt. Based on the analysis, it is known that exports, foreign exchange reserves, and the rupiah exchange rate have a real influence on Indonesia's foreign debt. So this should be a good consideration for the government to reduce foreign debt. Where the government must further promote exports so that there is no trade balance deficit and can reduce foreign debt. By diversifying products and export markets, Indonesia can increase foreign exchange earnings, which can help stabilize the Rupiah. Investments in value-added industries and infrastructure improvements can make Indonesia's exports more competitive in the global market.

The development of foreign debt influenced by the factors in this study is expected to be minimized by policies that have been suggested to be implemented. Such as monetary policy in exchange rate stability, encouraging the creative economy, suppressing imports, and encouraging exports so as to reduce Indonesia's foreign debt. Encouraging domestic production of currently imported goods can reduce the trade deficit. This includes promoting self-sufficiency in key sectors such as agriculture, energy, and manufacturing. Then the government and Bank Indonesia must make efforts or policies to stabilize the rupiah exchange rate in Indonesia.

For future researchers, it is expected that there is a need for additional variables that affect foreign debt, such as savings, taxes, government spending, and others. So that the estimation model can be trusted and able to explain the scope of foreign debt. The research uses only three independent variables to explain foreign debt. The authors acknowledge this limitation and suggest including additional variables like savings, taxes, and government spending for a more comprehensive model. A sharper policy implication for the Indonesian government to consider Reducing dependence on a limited number of export products or

markets and encourage diversification into new markets and products to lessen vulnerability to external shocks that could impact specific sectors. This might involve trade missions or agreements to open new markets for Indonesian goods. Implement stricter fiscal policies to ensure responsible government spending and reduce the need for foreign borrowing. This could involve prioritizing essential expenditures and cutting unnecessary spending. These sharper implications move beyond general recommendations and propose more specific actions the government can take to address foreign debt based on the research findings. By implementing these targeted policies, Indonesia can work towards a more sustainable approach to managing its foreign debt in the long run.

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