

Analysis Of The Influence Of Inflation, Exchange Rate And Current Transaction Deficit On Government's Foreign Debt

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Abstract:

The goal of the study is to evaluate the impact of Indonesia's government foreign debt on the country's current account deficit, exchange rate, and inflation before and after the world financial crisis. Ordinary Least Squares (OLS) is the analytical technique used. According to regression analysis, the current account deficit, currency rate, inflation, and the global financial crisis account for 90% of the official foreign debt. The analysis' findings indicate that the exchange rate and the current account deficit have a negative and considerable impact on the government's foreign debt. The Indonesian government debt is strongly and favorably influenced by the inflation rate.

Keywords: Government Foreign Debt, World Financial Crisis, Exchange Rate, Inflation Rate.

Introduction

Indonesia is one of the countries categorized as The Asian Miracle. Indonesia's growth over four decades (1961-2000) was very rapid. There are several factors behind the high economic growth rate of The Asian Miracle countries. First, these countries implemented outward-looking policies with an emphasis on increasing the value of exports and Foreign Direct Investment (FDI). Second, appropriate macroeconomic policies and an effective role for the government in the process of allocating economic resources. Third, the improvement of the education sector, labor force growth, and labor productivity. Fourth, the flexibility of the labor market that encourages faster growth. Furthermore, behind the economic growth in Asian countries, there is fragility. This fragility was only realized after the monetary crisis that hit Asia in 1997. The fragility is because economic policy is only centered on economic growth, while fundamental development is ignored. This led to a bubble economy, where growth was

high but fundamentally low. In fact, economic fundamentals are very important in supporting the acceleration of rapid growth (Cain et al., 2012).

Widharma et al added that the economic crisis that hit Indonesia in 1997-1998 made the rupiah exchange rate against the dollar depreciate very sharply. This made Indonesia difficult in terms of the economy, one of which was in terms of foreign loans, because the debt burden was felt to be getting higher. A financial crisis also occurred in 2008, better known as the global financial crisis. According to Thahjono et al., the world economy faced a new chapter of the collapse of global economic stability in the third quarter of 2008, which started to emerge in August 2007 when one of the biggest banks in France, BNP Paribas, announced the freezing of several securities relating to US high-risk housing loans. Indonesia's economy has been influenced by the global financial crisis, as seen by the turbulence on the capital and money markets. Foreign stock, government securities (SUN), and SBI assets are still being sold off (Taufik et al., 2022).

Purna et al. mentioned that the 2008 global financial crisis caused an increase in the rate of inflation in Indonesia, the impetus came from a surge in world oil prices which prompted the issuance of a subsidized fuel oil price policy. Inflationary pressures occurred as global commodity prices continued to rise. At the end of 2008 inflation gradually declined and commodity prices and fuel prices also gradually declined. From the data released by Bank Indonesia in 2014, it is known that there was high inflationary pressure until the second quarter of 2008, namely March 2008. This was due to the increase in world commodity prices, especially oil and food. The spike had an impact on the price increase determined by the government in raising the price of subsidized fuel oil. In the fourth quarter of 2008, the inflation rate began to decline due to the decline in international commodity prices, food and energy, as well as the government's policy of reducing the price of diesel and premium fuel oil at the end of 2008 and relatively good domestic food production (Suyoto & Tannady, 2022).

Kuncoro said that the impact of the global financial crisis was proven to have shaken three markets in Indonesia. First, the global financial crisis devastated the capital market. The Jakarta Composite Index (JCI) plummeted from 2,8 to 1,1, a drop of more than 60%. After February 2009, the JCI started to recover and even reached pre-global financial crisis levels of above 2,800. The second market affected by the global financial crisis was the exchange rate market, where the rupiah exchange rate against the dollar weakened quite dramatically and the third market affected by the global financial crisis was the export market. Data published by Bank Indonesia in 2009 showed that the exchange rate of the rupiah against the US dollar depreciated from Rp 9,076 to almost Rp 13,000 or a depreciation of more than 30% since January 2008. The weakening of the rupiah against the dollar has an impact on government external debt, if the rupiah depreciates, then government external debt will increase dramatically (Apriliani et al., 2023).

Tambunan said that since the crisis in the early 1980s, the external debt problems experienced by developing countries have not improved. Many debtor countries are plunged into a foreign debt crisis so that they cannot pay and require them to carry out structural adjustment programs at the insistence of the World Bank and the International Monetary Fund (IMF) to obtain new loans. Furthermore, high external debt in developing countries is mainly caused by three types of deficits: the current account deficit or so-called trade gap, where exports are less than imports; the investment deficit or I-S gap, where the funds needed to finance domestic investment (I) are greater than domestic savings; and the fiscal deficit or fiscal gap. Of these factors, the current account deficit is often cited in the literature as the main cause of ballooning external debt in developing countries. According to Chenery and Carter, foreign money may be used by emerging nations as a foundation for boosting investment and economic progress. The structure of production and commerce must alter in response to higher economic expansion. For structural change or money mobilization, foreign funding might be crucial. Fourth, even if foreign capital becomes more productive in the future, the demand for it decreases as soon as structural change occurs (Liu et al., 2015).

Another alternative for a country to reduce dependence on foreign debt is fiscal policy, which is the mainstay of government revenue. GBHN 1999-2004 specifically discusses foreign debt in four points covered in the economic policy direction. In addition to the 1999-2004 Guidelines, the mandate to reduce the government's dependence on foreign debt (APBN) was also outlined in the 2000-2004 National Development Program (PROPENAS) regarding programs or detailed guidelines for government debt management aimed at realizing the independence of development financing. The target is to achieve the optimal use of government loans, both domestic and foreign, for development purposes and to reduce the burden of foreign debt. This study aims to determine the effect of current account deficit, exchange rate, inflation, and the 2008 global crisis on Indonesia's foreign debt.

Literature Review

Hall and Tunner argue that debt is a promise or loan made by the debtor to the creditor to be paid back. So, foreign debt can be interpreted as a number of funds originating from creditor countries that are used for domestic financing (debtor countries) related to development in all aspects carried out due to lack of domestic funds. According to the Big Indonesian Dictionary (KBBI), loan means debt borrowed from other parties with the obligation to pay back. So it can be said that foreign loans are loans originating from other countries to meet domestic needs and must be paid back. Todaro says that foreign aid is all official consensual loans and grants, whether in the form of cash debt or other forms of assets, which are generally shown to transfer a number of resources from developed to developing countries (recently also from OPEC countries to Third World countries) (Hall & Tumer, 2012).

Arsyad argues that foreign aid is aid sourced from both the government and the private sector. Almost all aid through the government has loose (consensual) or lenient conditions; that is, it is given as grants or as loans at low interest rates and with longer repayment periods than those offered on the international private capital market. This aid can be subdivided into bilateral aid, given directly by one country to another, and multilateral aid, where funds flow to an international agency such as the UN, World Bank, and regional development banks, which in turn lend or channel the funds to the recipient developing country. Ultimately, foreign aid takes the form of technical assistance, the provision of skilled personnel or experts; or capital assistance, the provision of funds or commodities for various purposes (Tunuwijaya & Tannady, 2019).

Tambunan said that the current account deficit is the difference between exports and imports. If imports are greater than exports, it will cause a deficit. This deficit is called the current account deficit. Preferably, in a country the current account should not show a negative number each year, because it will reduce the country's foreign exchange reserves, because foreign exchange reserves are needed in a country, especially in developing countries. In Tambunan, it is stated that the foreign exchange gap (Foreign-Exchange Gap) becomes the cause of the current account deficit if exports are smaller than imports (Hutapea, 2014).

If exports are smaller than imports, it is certain that there has been a foreign exchange gap in the country, which will have an impact on the current account deficit. If there is a current account deficit every year, the foreign exchange reserves will be depleted to cover it. Since the economic crisis in 1997/98, Indonesia's dependence on foreign debt has never waned because at that time, the government needed large amounts of funds for economic recovery, so it was forced to take on foreign debt (Hermiyetti et al., 2023).

Foreign exchange rates, often known as foreign currency rates, display the cost or value of a currency in terms of another currency. The quantity of local currency required, or the number of rupiah, to get one unit of foreign currency, is another way to describe the foreign exchange rate. Exchange rates between two countries often differ from one period to another. Todaro says that the official exchange rate is a benchmark at which the Central Bank of the country concerned is willing to conduct local currency transactions with foreign currencies in predetermined foreign exchange markets. The official exchange rate of a local currency (countries other than the United States) is usually expressed in US dollars. The official foreign exchange rate is not always set exactly the same or close to the economic equilibrium price for foreign exchange, which is the price set by the forces of demand and supply for a currency without any government regulation or intervention (purely on market mechanisms). Hall and Tunner say that the exchange rate is a ratio of the exchange of one currency with another. This exchange rate is called the price of a currency with another currency at a certain time. The exchange rate can change at any time, depending on the economic conditions that occur in the country (Tannady & Purnamaningsih, 2023).

Inflation is the overall and general rise in prices in a country and within a certain period. If only one item experiences a price increase it cannot be said to be inflation, unless the increase in the price of that item causes the price of other goods to rise. According to Boediono, inflation is the general and ongoing tendency for prices to increase. If the price of just one or two items increases, this is not considered inflation unless it also affects (or contributes to) the majority of the prices of other items. Seasonal, holiday, or one-off increases in prices are not called inflation. The government's long-term objective is to keep the prevailing rate of inflation at a very low level. Although achieving a zero percent inflation rate is not the primary goal of government policy due to its difficulty, maintaining a low inflation rate is crucial. Inflation can increase suddenly due to economic events such as a huge depreciation of the currency or political instability. There are many other factors out there that cause inflation (Hidayat & Tannady, 2023).

According to Keynes' theory, inflation occurs because people want to live beyond their economic means. Thus, people's demand for goods exceeds the amount of goods available. This happens because people know their desires and turn those desires into an effective demand for goods. In other words, people manage to obtain

a larger amount of goods than they should. If the amount of demand increases compared to the prevailing price of goods, it will cause an inflation gap. This situation causes prices to rise so that the planned purchase of goods is not fulfilled. Such a situation makes people try to get more funds (either by printing new money or taking credit). This inflation will continue as long as there is excess demand compared to the amount of output produced by society (Hall & Turner, 2012).

Methodology

This study uses associative research with a quantitative approach. The data used in this study are secondary data in the form of quarterly data from 2004-2012 obtained through the December 2014 edition of the Indonesian Economic and Financial Statistics (SEKI) issued by Bank Indonesia. The data in this study were processed using the help of EVIEWS application and multiple linear regression was used to test the data.

Results

The data in this study were processed in the traditional assumption test to meet the standards of linear regression analysis before moving on to the main hypothesis testing. The Jarque-Bera probability value for this study was determined to be $0.86 > 0.05$ in the normality test, indicating that the data is normally distributed and has satisfied the normality requirements in the regression model. In multicollinearity testing, all variables have a correlation matrix value below 0.85 which indicates the absence of multicollinearity.

In the heteroakedasticity test, the probability value on $\text{Obs} * R^2$ is 0.19, meaning that the value is greater than $\alpha = 5\%$ which indicates that the data is free from heteroscedasticity problems. The results of the autocorrelation test obtained the probability value on $\text{Obs} * R^2$ is greater than $\alpha = 5\%$. This indicates that the data does not contain autocorrelation. The research model using Ordinary Least Square or multiple Linear Regression test obtained the following regression equation: $y = 20.04 + 0.34 X_1 - 0.007 X_2 - 0.96 X_3 + 0.007 X_4$

If the independent variables are considered constant or zero, meaning that the independent variables do not increase or decrease, the amount of Indonesia's government external debt (Y) is 20.04 million USD. The regression coefficient value of variable X_1 which represents the 2008 global crisis is 0.34, which means that every 1% increase will increase government external debt in Indonesia by 0.34 million USD. The regression coefficient value of variable X_2 is -0.007, which means that any increase in the current account deficit by 1 million USD will reduce government external debt by 0.007 million USD. The regression coefficient value of the exchange rate variable is -0.96, which means that any increase in the exchange rate by 1 rupiah will reduce government external debt by 0.96 million USD. The regression coefficient value of the inflation variable is 0.007, which means that every 1% increase in inflation will increase government external debt by 0.007206 million USD.

Based on the regression results, the t-statistic value is 13.09, the t-table value is 2 and the probability is 0.0000. The t-statistic value $>$ from the t-table, the decision rejects H_0 and accepts H_1 , which means that there is an effect of the global crisis on government foreign debt. While the probability value of $0.0000 < \alpha = 5\%$ means that the global crisis has a significant effect on government external debt. Based on the regression results, the t-statistic value is 4.8, the t-table value is 2 and the probability value is 0.0000. The t-statistic value $>$ from the t-table, the decision rejects H_0 and accepts H_1 , which means that there is an influence of the current account deficit variable on government foreign debt. Meanwhile, the probability value of $0.0000 < \alpha = 5\%$ indicates that the current account deficit variable has a significant effect on government external debt.

Based on the regression results obtained, the t-statistic value is 5.6, the t-table value is 2 and the probability is 0.0000. The t-statistic value $>$ from the t-table, the decision rejects H_0 and accepts H_3 , which means that there is an effect of the exchange rate variable on government external debt. While the probability value of $0.0000 < \alpha = 5\%$ indicates that the exchange rate variable has a significant effect on government external debt. Based on the regression results obtained, the t-statistic value is 2.05, the t-table value is 2 and the probability is 0.05. The t-statistic value $>$ from the t-table, the decision rejects H_0 and accepts H_4 , which means that there is an effect of the exchange rate variable on government external debt. While the probability value of $0.05 < \alpha = 5\%$ indicates that the inflation variable has a significant effect on government external debt.

Based on simultaneous calculations, the F-statistic value is 74.87, the F table value is 2.7 and the probability value is 0.000000. The value of F statistic $>$ from F table then the decision rejects H_0 and accepts H_1 , which means it can be concluded that the variable current account deficit, exchange rate, and inflation together affect the

government's external debt before and after the global crisis. While the probability value $< \alpha = 5\%$ indicates that the variable current account deficit, exchange rate, and inflation together have a significant effect on government external debt before and after the global crisis. Based on the R test, the determination coefficient is 0.89. This means that 89% of Indonesia's government external debt for the 2004-2012 period can be explained by the current account deficit, exchange rate, inflation, and the global crisis. Meanwhile, 11% of government external debt in Indonesia is influenced by other variables not examined in this study.

Discussion

Based on the results of data processing using regression, it shows that the global crisis has a positive and significant effect on the foreign debt of the Indonesian government. Where the coefficient value is 0.34. This means that if there is an increase in the global crisis by 1 unit, the government external debt will increase by 0.34 million USD. Indonesia is a small open economy so that the impact of the global financial crisis greatly affects the condition of the domestic economy. One of the impacts of the global financial crisis was the slowdown in Indonesia's economic growth. The negative impact of the global crisis, among others, is the decline in the performance of the balance of payments, pressure on the rupiah exchange rate and also a boost to the inflation rate.

The global financial crisis greatly affected government external debt in Indonesia. As mentioned earlier, the global financial crisis has a negative impact on several macro variables, one of which is the declining performance of the balance of payments. This balance of payments performance can affect the amount of government external debt. This is supported by research conducted by Hutapea. He said that in the short term the global crisis has a positive effect on the volume of foreign debt absorption. From this description, it can be concluded that the global crisis has a significant and positive influence on the amount of foreign debt of the Indonesian government.

Based on the results of data processing using regression, it shows that the current account deficit has a positive and significant effect on the foreign debt of the Indonesian government. Where the coefficient value is -0.007. This means that if there is an increase in the current account deficit by 1 million USD, it will reduce the government's foreign debt by 0.007 million USD. Prasetyantono said that in the development of the current account deficit in Indonesia in 1995/1996 there was a large current account deficit that forced the government to devalue on September 12, 1986.

In the case of Indonesia, when the current account was experiencing a very large deficit, at the same time there was also an increase in capital inflows from abroad. So it can be concluded that the current account deficit has a negative and significant influence on the increase in the Indonesian government's foreign debt. This is in accordance with research conducted by Prasetyantono in a study entitled Foreign Debt and Current Account Deficit in the Indonesian Economy. In the study he said the behavior of government foreign debt can explain the phenomenon of the current account, with a negative direction. That is, if there is a deficit in the current account balance, there will be a tendency to increase the inflow of foreign debt.

Based on the results of data processing using regression, it shows that the exchange rate has a negative and significant effect on the foreign debt of the Indonesian government. Where the coefficient value is -0.96. This means that if the exchange rate depreciates, in the sense that the rupiah exchange rate weakens against the dollar by 1 rupiah, it will increase the government's foreign debt by 0.96 million USD. Febrina in her research stated that "in its development the exchange rate always fluctuates. In 1997 (monetary crisis) the rupiah exchange rate against the US dollar depreciated by almost 50% from Rp 4650 per dollar to Rp 6337 per dollar. And in the same year the Indonesian government's foreign debt also increased from the previous period. So it can be concluded that the exchange rate has a negative and significant influence on the increase in foreign debt of the Indonesian government.

These results are in accordance with research conducted by Saleh who also said that macro variables, namely exchange rates, 1997 crisis dummies, exports and GNP levels have a significant effect on foreign loans in the long term. In Indonesia, there has been a significant change between the depreciation of the rupiah exchange rate and the increase in the foreign debt of the Indonesian government. For example, during the global crisis, the Indonesian government's external debt rose dramatically, offset by the depreciation of the rupiah against the US dollar. This in turn led to a worsening of the DSR (Debt Serviceability Rate).

Based on the results of data processing using regression, it shows that inflation has a positive and significant effect on the foreign debt of the Indonesian government. Where the coefficient value is 0.007. This means that if inflation increases by 1%, it will increase government external debt by 0.007 million USD. A high inflation rate can

also be called a weakening of the rupiah exchange rate caused by rising prices of imported goods (imported inflation). This condition arises because Indonesia has to spend more rupiah to get imported goods. This means that Indonesia needs a lot of funds to buy imported goods. This is because Indonesia is still dependent on imported goods. Goods that have a high import component will push up prices. This makes the government have to take on foreign debt to meet the needs of purchasing imported goods. So, it can be said that the relationship between inflation and government external debt is positive.

Inflation can also change if there is an economic phenomenon such as the global crisis. The impetus for inflation came from the surge in world oil prices which prompted the issuance of a fuel price subsidy policy. Inflationary pressure is getting higher due to higher global commodity prices, but the inflationary pressure is decreasing at the end of the global crisis, due to commodity prices and fuel subsidy prices that are gradually decreasing. The results of this study are supported by research conducted by Hutapea in his research entitled Analysis of Factors Affecting the Absorption of Foreign Debt in Indonesia. He said that inflation is positively related but not significant in the short term. He also said that inflation is negatively related and significant in the long term.

Conclusion

Based on the results of the analysis and discussion previously presented, the author obtained conclusions that can be drawn, where partially the current account deficit has a significant and negative effect on government foreign debt. The exchange rate has a significant and negative effect on government external debt. Inflation has a significant and positive effect on government external debt. The global crisis, which is represented by a dummy variable categorized as zero before the global crisis, and one after the global crisis, results in the global crisis having a significant and positive effect on external debt. Current account deficit, exchange rate, and inflation simultaneously affect government external debt before and after the global crisis.

References

Cain, Donneil, Thaxter, Thomas, and Walker. (2012). The Original Sin and Exchange Rate Dynamics: Panel Cointegration Evidence. *American Charter of Economics and Finance*, 1(2).

Taufik, Y., Sari, A. R., Zakhra, A., Ayesha, I., Siregar, A. P., Kusnadi, I. H., & Tannady, H. (2022). Peran Social Media Marketing dan Brand Awareness Terhadap Purchase Intention Produk Es Teh Indonesia. *Jurnal Kewarganegaraan*, 6(2), 5234-5240.

Suyoto, Y. T., & Tannady, H. (2022). Ideal Self-Congruence: Its Impacts On Customer Love And Loyalty To Luxury Brands In Indonesia. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, 7(6), 18.

Apriliani, R., Ashary, R., Prakoso, T., Rahmiyati, N., & Rachmawati, T. (2023). The Effect of Independent Commissioners, Corporate Social Responsibility, Investment Decisions, Institutional Ownership and Funding Decisions on Profitability. *JEMSI (Jurnal Ekonomi, Manajemen, dan Akuntansi)*, 9(4), 1347-1353.

Liu, J., Tjellström, H., McGlew, K., Shaw, V., Rice, A., Simpson, J., ... & Ohlrogge, J. (2015). Field production, purification and analysis of high-oleic acetyl-triacylglycerols from transgenic *Camelina sativa*. *Industrial Crops and Products*, 65, 259-268.

Hall, A., & Turner, D. (2012). The Economics Book. Leo Paper Products Ltd: London.

Tanuwijaya, C., & Tannady, H. (2019, August). Evaluasi Produk dan Pelayanan di Toko Buku Gramedia Emporium Pluit Mall Jakarta Utara Menggunakan Service Quality. In *Seminar Nasional Sains dan Teknologi Informasi (SENSASI)* (Vol. 2, No. 1).

Hutapea, D. (2014). Analysis of Factors Affecting the Absorption of Indonesia's Foreign Debt. Bogor Agricultural University.

Hermiyetti, H., Apriliani, R., Santoso, M. H., Wulansari, M., & Poernomo, A. H. (2023). The Role of Good Corporate Governance as a Moderating Variable in Relationship Between Solvency, Company Size, Liquidity and Stock Price. *JEMSI (Jurnal Ekonomi, Manajemen, dan Akuntansi)*, 9(4), 1247-1253.

Tannady, H., & Purnamaningsih, P. (2023). Determinant factors customer satisfaction and its implication on customer loyalty: from the perspective of customers of Vespa. *International Journal of Science, Technology & Management*, 4(2), 434-438.

Hidayat, W. G. P., & Tannady, H. (2023). Analysis of Organizational Citizenship Behavior (OCB) Variables, Work

Stress, Work Communication, Work Climate Affecting Employee Performance and Turnover Intention at PT. Bank Tabungan Negara (Persero) Tbk. Cabang Gresik. *International Journal of Science, Technology & Management*, 4(3), 688-696.

Saleh, S. (2018). Factors Affecting Foreign Borrowing and its Impact on the State Budget. *UNISIA*, 31(70).