

Analysis of Economic Growth, Exports and Savings to Debt in Indonesia

Ariusni

Universitas Negeri Padang, Padang, Indonesia

Email: ariusni.amir2018@gmail.com

ABSTRACT

This study aims to see how much influence economic growth has on debt; (2). How big is the effect of export growth on debt; (3). How much influence the growth of savings on debt. The type of data used in this study is secondary data in the form of time series with an annual time period from 1981 to 2018. The data used in this study include data on external debt, gross domestic product (GDP), Export Growth and Growth of net national savings in Indonesia. The data used in this study are data obtained from the World Bank. Based on research results show economic growth has a positive and very significant effect on debt. the level of savings has a negative and not significant effect on external debt. Growth has a positive and insignificant effect on debt. Growing together with debt (growth with indebtedness will only give the state a burden in the long run. Debts that increase continuously, when they are due are a huge burden for the country to repay them. Debts must be used in productive sectors so that they can produce results that can repay loans The supervision needs to be done in the use of loans, the existence of controlling, the use of debt will be more careful The government must allocate debt to potential sectors.

Keywords : debt, economic growth, saving, export

1. INTRODUCTION

A country in economic development on the one hand requires relatively large funds. While on the other hand, efforts to increase funds to finance development are still very limited. Mainly from savings, while domestic savings are limited so it is not enough to finance development. The main problem lies in the country's per capita income which is still very low so that in the formation of capital both sourced from government revenues from exports of goods abroad and from the public through tax instruments and instruments of financial institutions. That is the reason Foreign Loans are needed to finance Indonesia's economic development. As a developing country that is developing, which requires a lot of savings and capital for development.

Sustainable development is needed to improve a country's economy. Indonesia, as a developing country, has obstacles in realizing

development programs for national prosperity. The government faces the problem of limited capital to finance development. This is due to gaps in revenues and expenditures or the existence of development budget deficits. In an effort to overcome this gap, the Government of Indonesia undertook a series of policies both in the form of stimulus from domestic (internal) and from foreign (external), In addition to boosting the sources of state revenue through tax and non-tax intensification and intensification, the Indonesian government from time to time has implemented a foreign debt and foreign investment policy. According to the Big Indonesian Dictionary, debt is money borrowed from other people.

Increased production which is seen from high economic growth and increased human capital is a process that must be carried out by the government of each country to realize prosperity in society. Economic growth can be measured by the achievements and economic development

from one period to the next. According to Sukirno, S (2004) in macro analysis, the level of economic growth achieved by a country is measured by the development of the real national income achieved by a country / region.

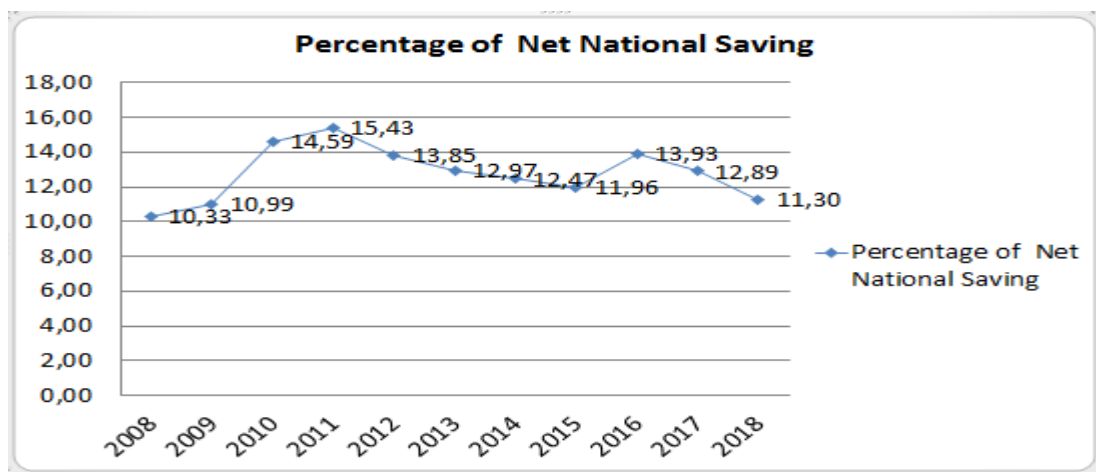
Basically, development funding comes from domestic and foreign revenue sources that have been carried out by a country. The source of domestic revenue comes from taxes, the results of the management of natural resources and SOE profits. Meanwhile, foreign revenues can be in the form of debt, assistance and grants from other countries or supranational organizations such as Islamic Development Bank, International Monetary Fund (IMF), World Bank, Asian Development Bank (ADB) and others. Theoretically, for a stable country, development funding will largely be sourced from domestic resources, not from foreign aid. However, for certain countries such as Indonesia, foreign aid is an important component for responding to its development.

The problem of capital is a major problem for developing countries. There are 2 types of capital, namely domestic capital and foreign capital which is usually called debt. In reality, developing countries prefer to use instant and fast ways to finance the economy by using foreign debt. Foreign debt itself is a responsibility and strategic choice chosen by the government so

that state finance remains stable, but all community needs can be met.

The country's economy is strongly influenced by the use of foreign debt in the short and long term. The results from the use of foreign debt should have a significant impact on economic growth. As a newly developing country, foreign debt is very much carried out by the government, but with the rapid development and limited ability of the government, the role of the private sector in the economy is increasing. The government debt should decrease because the private sector has strengthened. The amount of interest in private investment while limited domestic funding sources has supported the private sector to make foreign loans both in the form of direct investment and commercial loans and portfolio investments in the form of securities.

Sources of foreign financing for developing countries, is one source of funds to help accelerate the country's economic development process. This happened because there were not enough funds that came from domestic savings, so sources of funding from abroad were needed. One alternative to meet the lack of domestic funds in developing countries is usually overcome by the government of the country concerned by seeking assistance or foreign loans.



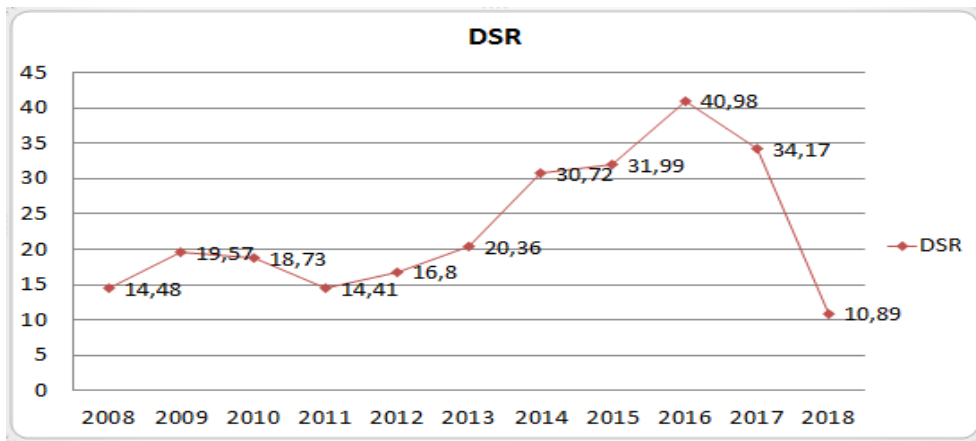
Source: World Bank, data processed, 2020.

Figure 1: Development of Indonesia's Net National Savings

Figure 1 shows that it has not increased in the last ten years, only it has fluctuated from 2008 the savings rate was only 10.33 percent, then at the end of 2018 it only rose slightly 11.30 percent. In ten years there was only an increase in net savings of only one percent. This clearly does not support development because Indonesia needs a lot of capital. Meanwhile the source of capital comes from domestic savings.

The existence of other variables for foreign debt is also related to namely Capital Flow,

Savings and Debt Service Ratio. Sukirno, S (2004) explains that basically there are three funding sources to carry out national development, namely voluntary community savings, government savings and forced savings. However, there is a gap between investment savings that reflects that the economy is unable to accumulate enough national savings to finance the growth of domestic investment. This gap between savings and investment is covered by foreign loans



Source: World Bank, data processed, 2020.

Figure 2: Development of Indonesia's Debt Service ratio

Figure 2 above shows the development of the ratio of debt to Gross Domestic Product or debt service ratio from 1995 to 2018. In 1996 the debt service ratio was almost close to 40 percent which means it had exceeded the 30 percent threshold. At that time the economic crisis continued until 1997. The DSR trend has been declining and fluctuating. Then in 2016 DSR increased again to 40 percent. Indonesia is always experiencing an increase in debt so that the impact on DSR is increasingly rising. In 2018 DSR has decreased to 10 percent.

The dangers of foreign debt have not been taken seriously by most borrowing countries given that they are very rich in natural resources. The entry of foreign capital is also considered as one way to overcome obstacles in the management of natural resources that are so

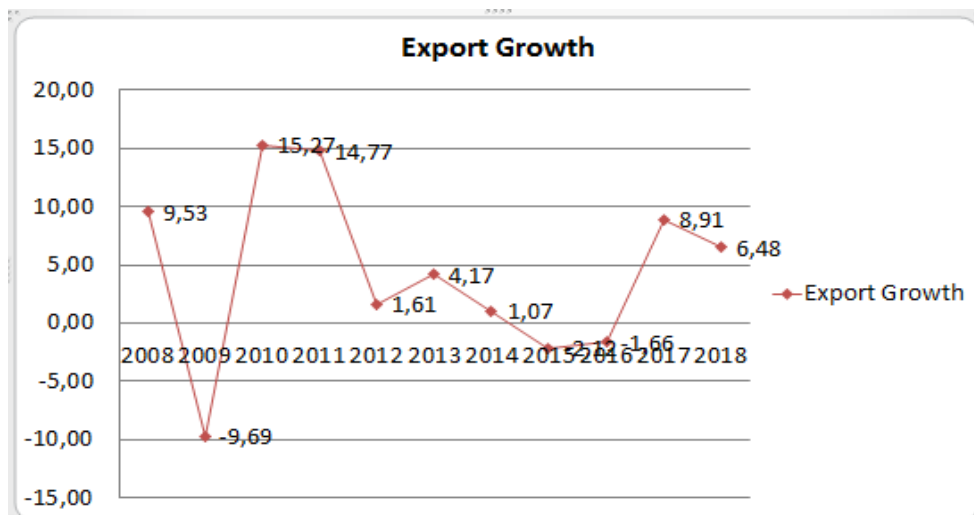
abundant when the economy is not so able to provide funds to explore and exploit its natural wealth. But in its development, the influx of funds into the country without effort and hard work has spoiled the debtor countries. As a result, foreign debt turned into debt traps for these countries.

Based on Figure 3 shows that the development of Indonesia's export levels from 2008 to 2018 showed very high fluctuations. This states that Indonesia's export level does not reflect good conditions because even negative in 2009 was -9.69 percent due to the global recession and also experienced negative growth in 2015 and 2016. In 2017 export growth increased again to 8.91 percent then after that it will go down again in 2018.

Based on Figure 3 shows that the development of Indonesia's export levels from 2008 to 2018 showed very high fluctuations. This states that Indonesia's export level does not reflect good conditions because even negative in 2009 was -9.69 percent due to the global recession and also experienced negative growth in 2015 and 2016. In 2017 export growth increased again to 8.91 percent then after that it will go down again in 2018.

Research Fadillah, H (2018) Sustainable economic growth is a state goal for the creation of prosperity and prosperity. Foreign debt has become one of the capital resources for the creation of economic development to increase production and the formation of large economic output. However, foreign debt can backfire for a country if the country is unable to regulate and maintain the condition of foreign debt. This study aims to analyze the relationship of foreign debt to economic growth using the unbalanced panel data test. This study uses annual panel data with a period of 15 years and 112 countries. The results showed that foreign debt had a significant positive effect on economic growth but also had a turning point when excessive debt would reduce economic growth. But Mulder's study (2014) conducted a study on the effect of

public debt on economic growth in the European region. The period of observation carried out originated from 1990 to 2012. The results of the study showed that there was a negative influence from the high debt to GDP, but still could not be explained significantly due to the lack of available data. The results of this study also show that the study of Reinhart and Rogoff (2010) is not proven in this study which states that high public debt has a positive impact on economic growth. While research conducted by Daryanto (2004) discusses the effect of foreign debt on economic growth for the period 1977 to 2001. The method used is multiple regression analysis with the Ordinary Least Square (OLS) method. The results of his research show that foreign debt negatively affects economic growth and is statistically significant. This means that foreign debt does not have a positive contribution and tends to have a bad influence on Indonesia's economic growth. The results also showed that the management of foreign debt carried out by the government was not optimal. Management of foreign debt in the Reform Order tends to be better than in the New Order. Even so, the influence of foreign debt in the two orders was equally negatively affecting economic growth.



Source: World Bank, data processed, 2020.

Figure 3: Indonesia's Export Growth from 2008 – 2018

Foreign debt can also lead to economic globalization in Indonesia. Exports and foreign investment are very influential on the occurrence of globalization in Indonesia. GDP as an important role in developing globalization in ASEAN, this can also affect how much the level of Indonesia's foreign debt in research (Suliswanto, 2016). Research (Zuhroh, 2009) also explains that investment influences foreign interest so that it can be explained when foreign interest rises there will be an increase in foreign debt in countries with debt.

Based on the description above, the research question is to find out (1). How big is the effect of economic growth on debt; (2). How big is the effect of export growth on debt; (3). How much influence the growth of savings on debt.

In general, foreign debt is a loan made by the government which is obtained from an overseas party. Whether it's through international financial institutions (IMF, World Bank, Asian Development Bank) or from developed countries (Japan, US, Germany, UK, and others). Foreign debt can be interpreted based on various aspects. According to Triboto, based on material aspects, foreign loans are capital inflows from abroad into the country that can be used as additional capital in the country. Based on the formal aspect, foreign loans are receipts or gifts that can be used to increase investment to support economic growth. While based on aspects of its function, foreign loans are an alternative source of financing needed in development (Triboto, 2001: 3).

According to George (1992: 133), pragmatic foreign debt actually becomes a boomerang for recipient countries (debtors). The economy in debt-recipient countries is not getting better, but can be even worse. This is one of the conclusions from the results of his research which showed that in the 1980s capital flows flowed from countries of developed industry, creditor countries are generally, official development aid (official development assistance) to developing countries), credit of export, and private capital flows, such as bilateral and multilateral aid.

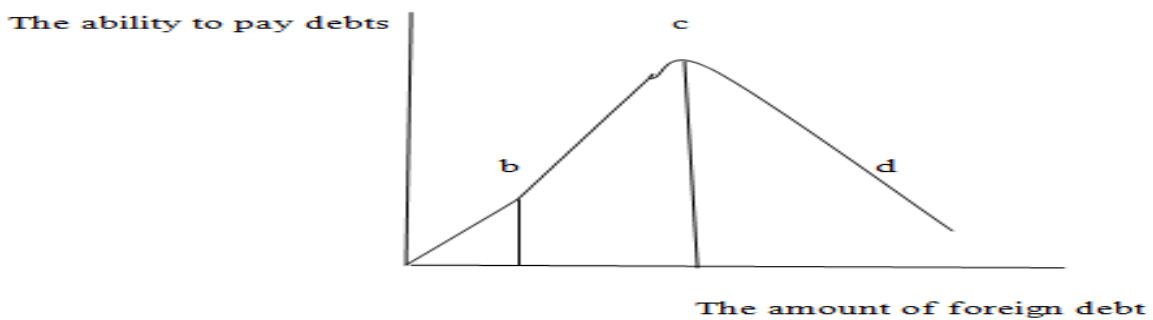
Sukirno said in terms of benefits, there are two main roles of foreign aid (foreign debt), namely: to overcome the problem of lack of savings, to overcome the shortage of foreign currencies. These two problems are commonly referred to as the double problems (the two problems), namely the savings gap and the foreign exchange gap (Sukirno, 2002: 62). Sukirno (2002) said, in terms of benefits, there are two main roles of foreign assistance (foreign debt), namely; (1). To overcome the shortage of foreign currencies; (2) To overcome the problem of lack of savings. The two problems are commonly referred to as the problem of the double gap (the two problems), namely the gap (savings gap) and the gap in foreign currencies (foreign exchange gap).

Foreign debt can be distinguished in various aspects. According to Triboto (2001) foreign debt can be divided into 5 aspects that affect the debt. These aspects are based on the form, timing, status of receipt, source of funds and requirements for borrowing foreign debt. (A). Types of debt based on the type of loan; (1). project assistance, which is foreign aid used for projects of development by entering capital goods, goods and services; (2). technical aid, which is the provision of assistance skilled or skilled workers; (3). program assistance, which is assistance intended for funds for general purposes so that the recipient is free to choose their use according to choice. (B). Types of debt based on the source of loan funds, loans divided into; (1). Loans of international society, which are loans originating from international bodies such as the World Bank and the Asian Development Bank, which are basically loans with low interest; (2). And loans from IGGI (Intergovernmental Group on Indonesia) member countries. Usually is soft loans. (C). Types of debt based on the loan period, loans divided into; (1). Short-run loans, ie loans with a period of up to five years; (2). Medium-term loans, namely loans with a period of 5-15 years; (3). Long run loans, ie loans with a term of more than 15 years. (D). Types of debt based on the status of loan receipt, loans divided into; (1). loans of government, namely loans made by the government; (2). Private loans,

namely loans made by private parties. (E). Types of debt are based on loan terms, loans are divided into; (1). Soft loans, which are loans originating from multilateral institutions and bilateral countries whose funds come from contributions (for multilateral) or from the relevant state budget (for bilateral) aimed at increasing development; (2). Half-soft loans, ie loans that have loan conditions that are partly soft and partly commercial; (3). Commercial loans are from banks or financial institutions

with regulations that apply in international markets in general.

The Laffer curve illustrates the relationship between the ability to pay external debt and the amount of foreign debt in the debtor country. An increase in debt stock can reduce the ability to pay of the debtor country. This is because high debt stock can result in a bad economy through reduced ability to pay foreign debt (Batiz and Batiz, 1994).



Source: Batiz and Batiz, (1994)

Figure 4: Debt Laffer Curve

In Figure 4 it can be seen that the AB segment depicts higher foreign debt stock as well as an increase in the ability to pay debt at home (expected debt payment). This is because the debt stock is still relatively small. Both increases have the same proportion because at a low debt level, creditors can expect full payment from the debtor. At debt levels above X1, there is a probability that the debtor cannot repay the debt in full. While the BC segment illustrates how the possibility of debt repayment capability is in response to the higher debt levels. After X2 goes to the right (area / CD segment), an increase in debt will reduce the ability to pay the debt. Furthermore, at this stage, debt will have a negative impact on economic growth.

A large debt accumulation will lead to large payment obligations. This can force the government to raise tax rates, as an effective

source of state revenue. High taxes will certainly reduce the enthusiasm of investment in the country and reduce productive business. As a result, economic growth will be lower and the ability to pay off debt will also be lower. At point D shows debt reduction will increase the ability to pay debts where the debtor and creditor will benefit. The profit obtained by the creditor is the repayment of principal and interest on the debt while the profit of the debtor is the increase in economic growth. However, debt reduction will usually only be given to poor countries whose debt levels are very high and do not have the ability to pay (heavily indebted countries).

The Laffer curve shows that the left side of the curve is the "good side" of the curve, which is to rise the value of external debt payments. Meantime, if there is a debt overhang, a condition where the country does not have the capability to pay the debt in full and the actual payment

depends on the application of economic policy. This presents the "wrong side" section of the Laffer curve.

The economic progress of a region shows the success of a development even though it is not the only indicator of the success of development (Todaro: 2011). There are three types of measures to assess economic growth, namely output growth, output growth per worker, and output growth per capita. The output growth is used to assess production capacity growth which is affected by an increase in labor and capital in the region. Output growth per workforce is often used as an indicator of changes in the competitiveness of the region (through growth of productivity). While the growth of output per capita is used as a measurement of changes in economic welfare (Bhinadi: 2003).

An economy is said to grow if there is an increase in output per capita in the long run, economic growth as a quantitative measure that describes the development of an economy in a certain year when compared with the previous year (Sukirno, 2004). Economic development can also be defined as a process that causes an increase in real income per capita of a country's population in the long run accompanied by an improvement in the institutional system (Arsyad, 2004). The concept of GDP is used at the national level, while at the provincial and district / city levels the concept of GRDP is used. GDP or GRDP can be measured by 3 kinds of approaches, namely the production approach, 16 approaches and expenditure (Tambunan, 2003). The production and income approach is the Aggregate Supply approach while the expenditure approach is the Aggregate Demand approach.

The use of foreign debt as capital can increase economic growth in the short term, but what are the implications if it is carried out continuously in the long run? Political economy considerations can be the reason for the high foreign debt which results in low economic growth and the emergence of capital flight.

Solow's theory explains how the level of saving and investment, population growth and technological progress affect the level of economic output and growth over time (Mankiw: 2000). In this theory technological development is assumed to be an exogenous variable. The relationship between capital output and labor can be written in the form of a function as follows.

$$y = f(k) \quad (1)$$

From equation 1 it can be seen that output per worker (y) is a function of capital stock per worker. In accordance with the prevailing production function of the law "the law of diminishing return", where at the initial production point, the addition of capital per labor will increase output per worker more, but at a certain point the addition of capital stock per worker will not increase output per worker and even will be able to reduce output per worker. While the investment function is proposed as follows.

$$i = sf(k) \quad (2)$$

In this equation, the level of investment per worker is a function of capital stock per worker. Capital stock itself is influenced by the amount of investment and depreciation where investment will increase capital stock and depreciation will reduce it.

$$k = i - \gamma kt \quad (3)$$

A high level of savings will affect the increase in capital stock and will increase income so as to bring about rapid economic growth. But in a certain period of time economic growth will slow down if it has reached what is called the steady-state level of capital. This condition occurs if investment equals depreciation so that capital accumulation.

Theory of Harrod-Domar analyzes the conditions needed for the economy to growing and developing in the long run. In other words, this theory tries to show the conditions needed for the economy to grow and develop steadily. (Arsyad, 1999) Harrod-Domar's theory has several assumptions, namely:

(a).The economy is in full employment and capital goods that comprise the community are fully utilized. (b). An economy consisting of two sectors, namely the household and the private sector, means that government and external trade do not exist. (c). The amount of community savings is proportional to the amount of national income, meaning that the saving function starts from zero. (d). The tendency to save (marginal propensity to save = MPS) is fixed, as does the capital-output ratio (COR) and the incremental capital-output ratio (ICOR) (Arsyad 1999).

According to Harrod-Domar, each economy can set aside a certain proportion of its national income if only to replace damaged capital goods (buildings, equipment, materials). However, to grow the economy, new investments are required as additional capital stock.

If we set COR = k, the saving tendency ratio (MPS) = s which is a fixed proportion of total output, and investment is determined by the level of savings, then we can develop a simple economic growth model as follows; (1). Savings (S) is part of a certain amount, or (s), of national income (Y). Therefore, we can also write this relationship in the form of a simple equation;

$$S = sY \tag{4}$$

(2). Net investment (I) is defined as the change in capital stock (K) that can be represented by ΔK, so we can write the second simple equation as follows:

$$I = \Delta K \tag{5}$$

However, because the amount of capital stock, K, has a direct relationship with the amount of national income or output, Y, as indicated by the capital-output ratio, k,

$$\text{if : } ky = K \tag{6}$$

$$\text{or } \Delta k \Delta y = K \tag{7}$$

$$\text{ot, finally } \Delta k = K \Delta y \tag{8}$$

(3). Finally, given the net national savings (S) must be the same as net investment (I), then the next equation can be written as follows:

$$S = I \tag{9}$$

From equation (4) it is known that S = sY and from equations (5) and (6), know that:

$$I = \Delta k = k \Delta y \tag{10}$$

Thus, we can write the "identity" of savings equal to investment in equation (11) as follows:

$$S = sY = K \Delta y = \Delta k = 1 \tag{11}$$

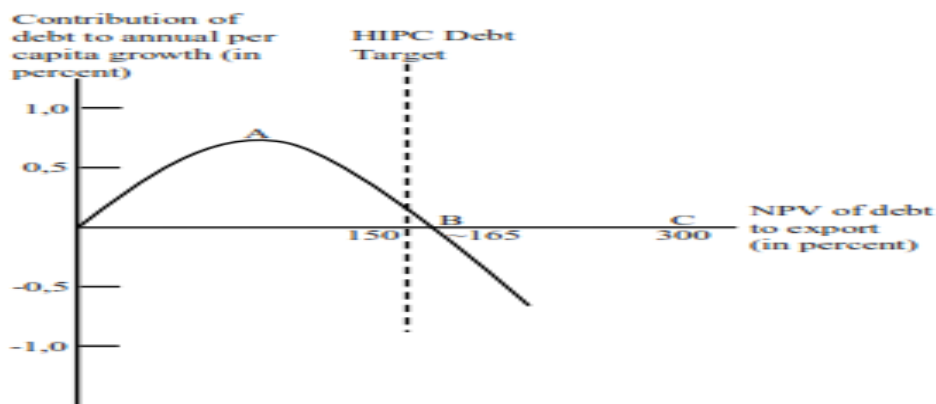
or can be summarized into;

$$sY = K \Delta y \tag{12}$$

Next, if the two sides of equation (2.6) are divided first with Y and then with K, we get;

$$\Delta Y/Y = sk \tag{13}$$

ΔY/Y in equation (13) is the rate of change or rate of GDP growth (that is, the percentage change in GDP) (Todaro, 2006: 128 – 129).



Source : IMF, 2002.

Figure 5: Relationship of foreign debt to GDP per capita.

The IMF made a study of this reality which resulted that debt has a non-linear effect on economic growth and will have a negative impact on economic growth (Pattilo et al, 2002).

2. METHOD

Secondary data in the form of time series with an annual time period from 1981 to 2018 is the type of data used in this study. Data used in this study include data on external debt, gross domestic product (GDP), Export Growth and Growth of net national savings in Indonesia. This study used data which is obtained from the World Bank and the literature relating to this research.

One step in this study is to determine the general model used with the regression function with foreign debt, gross domestic product (GDP), Export Growth and Growth of net national savings as independent variables. The dependent variable of this research is economic growth per year. The equation model that will be used in this study is as follows:

$$Y_t = \beta_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e_t \quad (14)$$

Where, Y_t = Amount of Indonesian Foreign Debt; β_1 = Constant; X_2 = Economic growth per year (per cent); X_3 = Export growth per year (per cent); X_4 = Growth in net savings per year (per cent); e = error term.

3. RESULT AND DISCUSSION

The discussion is based on the variables that affect debt in Indonesia. These variables are economic growth, net savings growth and export growth. Table 1 shows the results of data processing, namely the effect of economic growth, net savings growth and export growth on debt using Stata 13. Based on the estimated time series regression results are as follows. The results of this secondary data processing obtained by debt equation are as follows;

$$\text{Lndebt} = -12.90288 + 1.42734 \text{Lngdp} - .0024076 \text{NNS} + .0005213 \text{expgrow} \quad (15)$$

Table 1: Estimated Result

Linear regression	Number of obs = 38					
F(3, 34) = 21.79						
Prob > F = 0.0000						
R-squared = 0.9964						
Root MSE = .08851						

Semirobust						
Lndebt	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
-----+-----						
lngdp	1.427345	.193641	7.37	0.000	1.033819	1.82087
nns	-.0024076	.0058515	-0.41	0.683	-.0142993	.0094842
expgrow	.0005213	.0013464	0.39	0.701	-.0022149	.0032575
_cons	-12.90288	5.315199	-2.43	0.021	-23.70466	-2.101095
-----+-----						

rho | .8497143

Durbin-Watson statistic (original) 0.379579

Durbin-Watson statistic (transformed) 1.482887

Source : Data Processed

This discussion aims to interpret the results of research and the objectives of this study. The results of the discussion can be known as follows.

3.1 Effect of economic growth on debt

Based on research results show economic growth has a positive and very significant effect on debt. An increase of one percent of economic growth will increase 1.4 percent of debt in Indonesia. This states that the higher the economic growth, the foreign debt in Indonesia and vice versa the lower the economic growth the lower the Indonesian foreign debt. This means that Indonesia is growing with foreign debt. Because Indonesia is still a developing country, it still needs external debt to build infrastructure such as roads, ports, airports, etc. because it requires large funds or investments. Development is not only physical in nature, but also the construction of infrastructure for human resources such as schools and others.

3.2 The effect of the growth of income savings on debt

Based on the results of this study showed the tier of savings has a negative and not significant effect on external debt. Increasing one saving rate will reduce 0.002 Indonesia's external debt. This suggests that the size of the savings rate does not determine the size of Indonesia's external debt. External loans are not caused by saving gaps that occur in Indonesia but are caused by the need to obtain development projects by the political elite. This is also due to the flight of domestic capital abroad. Indonesia's economic growth tends to decline causing domestic investors to tend to save abroad or invest abroad because it is considered safer and more stable for the intended foreign investment

3.3 Effect of export growth on debt

Based on the results of the study showed growth has a positive and not significant effect on debt. One percent increase in export growth will increase 0,0005 percent of Indonesia's debt. This states that export growth does not affect foreign debt or the occurrence of trade gaps because the size of the debt depends on the government to meet fiscal needs. Fiscal needs in meeting the budget deficit or APBN (fiscal gap) require large foreign loans to offset large government spending. The need for balance of payments often results in a trade gap, especially in the case of a deficit trade, to offset the large value of imports because a small export value requires a large loan in the balance. But this result does not indicate a problem of a trade gap. The value of exports produced has no impact on debt. Indonesia's small export value has no effect or effect on debt because debt is carried out and used does not produce results in the productive sector. Debts are made again to cover debts that are due and so on. In addition, there is a lot of allocation of debt to things that do not produce results or returns for the Indonesian economy.

4. CONCLUSION

From the results of the multiple regression analysis and the discussion of this study between the variables of population density, income inequality and the level of labor force participation in urbanization as explained, the following conclusions can be drawn; Based on research results show that economic growth has a positive and very significant effect on debt. The level of savings has a negative and not significant effect on external debt. Growth has a positive and insignificant effect on debt.

The suggestion of this research is growing together with debt (growth with indebtedness will only give the state a burden in the long run.

Debts that increase continuously, when they are due are a huge burden for the country to repay them. Debts must be used in productive sectors so that they can produce results that can repay loans. The supervision needs to be done in the use of loans, the existence of controlling, the use of debt will be more careful. The government must allocate debt to potential sectors.

REFERENCES

- Arsyad, Lincoln. (1999). Pengantar perencanaan dan pembangunan ekonomi daerah. BPFE Yogyakarta.
- 2004. Ekonomi Pembangunan. Edisi Keempat. Yogyakarta: STIE YKPN
- Batiz FL & Batiz LA. 1994. International Finance and Open Economy Macroeconomics. Prentice Hall, New Jersey.
- Bhinadi, A. 2003. Growth Disparity in the Java Economy and Outside Java Economic Development. Vol 8. No 1. June 2003
- Daryanto. 2004. Pengaruh Utang Luar Negeri Terhadap Pertumbuhan Ekonomi. Fakultas Ekonomi dan Manajemen Institut Pertanian Bogor.
- Fadillah, H . 2018. Analisis Hubungan Utang Luar Negeri Terhadap Pertumbuhan Ekonomi Di negara Berkembang. Institut Pertanian Bogor.
- George, S., 1992; *The Debt Boomerang: How the Third Debt Harms Us All*, Pluto Press, London.
- Pattilo et al, 2002. External Debt and Growth. Research Departement. International Monetary Fund Working Paper.
- Reinhart, C., & Rogoff, K. 2010. Growth in a Time of Debt. Retrieved 5 8, 2014, from Growth in a Time of Debt: <http://www.nber.org/papers/w15639.pdf>
- Sukirno, Sadono. 2002. Teori Mikro Ekonomi. Cetakan Keempat Belas. Rajawali Press: Jakarta
- Sukirno, Sadono. 2004. Makro Ekonomi. Edisi Ketiga. Jakarta: PT. Raja Grafindo Persada
- Suliswanto, M. S. W. 2016. Level of Openness of Economic Countries in ASEAN. The economy.
- Tambunan, T. T. H. 2003. Perekonomian Indonesia: Analisis Studi Teortis dan Empiris. Bogor: Ghalia Indonesia.
- Todaro, M. 2011. Third World Economic Development. Eleventh Edition. New York University and The Population Council.
- Tribroto, 2001. Foreign Loan Policy and Management, Inside: Sigalingging, Hotbin [editor]. Profil Pinjaman Luar Negeri Indonesia dan Permasalahannya.
- World Bank. 2019. External Debt Stock (total). <http://data.worldbank.org>.
- Zuhroh, I. 2009. The effect of the Federal Reserve's foreign exchange interest (The FED), the Rupiah exchange rate (Rp / \$) and inflation on the value of the combined stock price on the Indonesia Stock Exchange in 2006 s.d 2008. Economic Development.
- Zuhroh, I. (2016). Comparative Financial Performance of National and Foreign Banks 2010 up to 2015 Economic Development.