Do Government Debt and Riba Have an Impact on the Economy and the People?

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Abstract

This study aims to investigate public debt or government debt, economic growth, and population productivity as measured by the unemployment rate in Indonesia. We focus on analyzing the republic of Indonesia. We use secondary data from the world bank with an annual period from 1990 to 2021 for all variables. We use the vector autoregressive method in estimating variables. We found that government loans are public loans to encourage economic development. However, interest-bearing loans do not always drive the economy directly. This is evidenced by the interest pressure on economic growth and the higher the public loan, the more it suppresses economic growth and pushes up the unemployment rate. So that usury or interest burdens the economy and encourages an increase in unemployment. Debt slows population growth and productivity, which, in turn, does not generate the income needed to pay off or reduce debt burdens. This cycle of financial reliance is passed down from one generation to the next. Both the current generation and the generations after it are responsible for repaying the debts that were incurred in the past. Additionally, international political and economic organizations uphold agreements made by states to incur debt. Government spending in economic development does encourage economic growth but the leverage of government spending in encouraging economic growth in Indonesia is still not enough to compensate for the debt interest that must be paid by the public.

Introduction

The analysis of economic growth begins by identifying the contribution of basic production factors to growth, extending the analysis by considering how human capital also determines it. Likewise with a more in-depth study by reflecting on the factors that determine productivity (Widarni & Bawono, 2023). At this level, it is important to examine the appropriate role of technological innovation and institutions (political and economic) as variables affecting productivity and growth. All research is accompanied by an analysis of the fundamental factors of growth, such as governing regimes, culture, inequality, natural resource endowment, geography, and indirect historical (or luck) evolution (Ding, Liu, Zheng, & Li, 2021). That is, the dynamics of growth and the emergence of direct factors on these economic variables are investigated using a mathematical model built on the basis of conventional economic theory (Horoshko, Horoshko, Bilyuga, & Horoshko, 2021). It asks how fundamental factors affect direct factors and how, through these, economic growth is affected. However, despite the large number of variables studied, the importance of a country's external and internal public debt is neglected. The financial constraints on this growth were deemed unavoidable, with no politically viable solution, in the best cases, only its administration is mentioned to justify the argument that it is not a serious impediment to growth (Luukkonen & Sirviö, 2019).

Public debt, acknowledging its importance and its relation to financial crises and economic growth. It is argued that excessive debt is an important explanatory variable of the financial crisis, which, if anything, increases debt and negatively affects growth, creating and deepening the vicious cycle of increasing debt and slow growth (Gaies & Nabi, 2021). Likewise, some researchers point out that debt in its various forms has been present in the financial crises facing Latin American countries and other regions of the world. For example, the financial crisis in Mexico in 1982 was caused by excessive foreign borrowing (Altamura & Zendejas, 2020). On the other hand, in the context of the 2016 presidential election in the United States (US), debt and economic growth have been identified as fundamental priorities for presidential candidates, although the relationship between the two is timidly indicated. Consequently, in order to have an empirical element that contributes to support the research hypothesis, in the first part of this work, statistical data on debt, growth and other economic indicators are analyzed (Dahl, Lu, & Mullins, 2022).

The analysis of the factors that determine growth consists of two main areas: one quantitative and one qualitative. The first consists of constructing a mathematical model that is fundamentally supported by neoclassical economic theory, which is the main approach (Mohajan, 2020). The sophistication of this model is high, because it is related to the mathematical method developed to explain deterministic and stochastic dynamic processes (Mohajan, 2020). Despite the fact that these models of economic growth seek to explain the mechanism of growth, the problem of debt is not contemplated or considered a minor problem. In the best case, debt is considered only as a deductive variable in the production function of the open economic growth model (Briceño & Perote, 2020). Regarding the qualitative field, it analyzes the fundamental factors of growth such as political regimes of government, culture, inequality and geography, among others. In the same way as in quantitative analysis, here also the importance of not being in debt a lot for a country to achieve economic prosperity is neglected (Asghar Pilehvar, 2021).

The rapid population growth has lost power, so that future global economic growth will only depend on accelerating increases in productivity. This explanation of growth is echoed by economist Robert Solow, who sees a significant looming problem as secular stagnation in developed countries, a term that denotes not only a tendency to slow growth, but more specifically an inability to exploit maximum productive potential (Cheang & Palmer, 2023). Solow argues that the European, Japanese, and North American economies are stuck in a period of secular stagnation, which is explained by slow population growth and slow total factor productivity (in terms of capital and labor efficiency) in the future (Alfani, 2021).

The earlier conception of economic growth is a clear example of avoiding public debt. It is a conception that does not regard public debt as a fundamental factor explaining economic stagnation. But in the context of public policies that would increase the pace of economic growth (increase working hours, improve the quality of the workforce, increase the quantity and quality of investment, reduce the negative impact of regulation, increase public and private spending on research and development), it is shy to point out that

policies this comes at a cost, implicitly accepting the relevance of debt in a stagnant economy (Bernardini & Forni, 2020).

The burden of public debt was seen as inevitable, and as a result, a drain on the resources that could be invested in promoting growth. Any solution other than satisfying financial commitments is deemed politically inappropriate, with most debt management being discussed in such a way as not to be a serious impediment to growth (Yusuf & Mohd, 2021). On the other hand, devising a strategy to reduce debt levels and promote economic growth is a complex task (Mohsin, Ullah, Iqbal, Iqbal, & Taghizadeh-Hesary, 2021). There are proposals aimed at designing financial and economic policies to manage growing public debt and stimulate growth. In addition to deep fiscal reforms and sound credit policies, governments need to strike a balance between supporting moderate growth and devising strategies to reduce their deficit and debt levels once growth picks up. This study aims to investigate public debt or government debt, economic growth, and population productivity as measured by the unemployment rate in Indonesia. To measure the debt problem, developed country debt, developing country debt, and global debt are shown. In particular, information is offered on the level of the sovereign debt of the republic of Indonesia. After we establish the facts of public debt and economic growth, we analyze the impact on the people by measuring the growth of the unemployment rate. Finally, supported by the statistical information and theoretical approach presented, conclusions are offered, which include several proposed solutions to the problem of growing public debt and low or riba-suppressed economic growth.

Literature Review

The economic success of a country can depend on the economic institutions and productivity of the population, the rules that determine the functioning of the economy and the incentives that motivate economic agents (Bulturbayevich, 2022). Efficient economic institutions (those that have economic efficiency and a fair distribution of products as their goals) promote economic activity, creation or adoption of technology, increased productivity and prosperity. These institutions can create well-functioning markets. To understand the underdevelopment or stagnation of a country's economy, it is important to analyze why some societies are efficiently organized and others are not. For some people, governmental political institutions and regimes have a fundamental role in this process of efficient social organization. Some countries have succeeded in adopting or building efficient political and economic institutions, achieving prosperity, but most have not. In general, the absence of efficient institutions cannot be explained by cultural reasons or ignorance (Ciliberto, Szopik-Depczyńska, Tarczyńska-Łuniewska, Ruggieri, & Ioppolo, 2021).

The problem is politics, the ruling elites always make decisions according to their interests (stay in power and get rich), their goal is not to create institutions that question their goals, even if they promote prosperity in the country. Thus, the issue of debt and growth is not primarily financial and economic, but must involve political analysis and political processes. In particular, public debt transcends the realm of politics and becomes an anthropological, sociological, philosophical, and moral issue (Avelino, 2021). To be efficient, economic institutions must offer security to private property so that investment and productivity increase. They must also offer a fair legal system and public services that provide a level playing field for exchange and enable competition. On the other hand, political institutions resulting from political struggles determine who has power in society and for what purposes that power can be used. If the distribution of power is restrictive and unlimited, political institutions can be said to be inefficient. With this type of institution, those in power establish economic institutions to enrich themselves and increase their power at the expense of society. On the other hand, political institutions that distribute power widely in society and limit it can be called efficient. Instead of giving it to a single person or small group, political power resides in broad coalitions or a plurality of groups (Nethercote, 2020).

Economic institutions, economic incentives, and the extent of economic progress are all influenced by political institutions. Ineffective political systems concentrate power in the hands of a small number of

elites and impose few limitations on their use of it, allowing them to set up economic systems to rob the rest of society of its resources. As a result, ineffective economic and political institutions go hand in hand (Laplane & Mazzucato, 2020). The justification for political elites choosing the political institutions they do extends to why they may not always desire to create economic institutions that promote economic prosperity. Elites can exercise power to establish political institutions they like. In general, these elites are not interested in changing political institutions to be efficient because it will reduce their political power. From what has been said, it appears that development and prosperity are associated with efficient political and economic institutions, and that inefficient institutions are associated with stagnation and poverty. However, this problem is more complex. In order for a country to have efficient economic institutions, it does not only need efficient political institutions, but also a strong and sufficiently centralized state, a problem that an efficient political regime does not necessarily guarantee (Devinney & Hartwell, 2020).

Population productivity is vital in an economy that supports economic growth (Khan, Hou, Irfan, Zakari, & Le, 2021). Riba is an economic burden. So that public debt is also a burden from the production results of the population which is reflected in the gross domestic product. Debt slows population growth and productivity, which, in turn, does not generate the income needed to pay off or reduce debt burdens (Prabowo, Sulisnaningrum, & Harnani, 2021). This situation creates a vicious cycle of increasing debt and slow growth which is likely to continue. So, it only grows to serve the debt. This cycle of financial reliance is passed down from one generation to the next. Both the current generation and the generations after it are responsible for repaying the debts that were incurred in the past. Additionally, international political and economic organizations uphold agreements made by states to incur debt (Seldal & Nyhus, 2022). Government spending in economic development does encourage economic growth but the leverage of government spending in encouraging economic growth in Indonesia is still not enough to compensate for the debt interest that must be paid by the public (Prabowo, Sasongko, & Damayanti, 2022).

Research Method

We focus on analyzing the republic of Indonesia. We use secondary data from the world bank with an annual period from 1990 to 2021 for all variables. We use the vector autoregressive method in estimating variables with the following model:

$$Gdebt_{ti} = \beta_0 + \beta_1 GE_{ti} + \beta_2 UY_{ti} + \beta_3 GDP_{ti} + \beta_4 IR_{ti} + e_{ti} \quad \text{eql 1}$$

$$GE_{ti} = \beta_0 + \beta_1 Gdebt_{ti} + \beta_2 UY_{ti} + \beta_3 GDP_{ti} + \beta_4 IR_{ti} + e_{ti} \quad \text{eql 2}$$

$$UY_{ti} = \beta_0 + \beta_1 Gdebt_{ti} + \beta_2 GE_{ti} + \beta_3 GDP_{ti} + \beta_4 IR_{ti} + e_{ti} \quad \text{eql 3}$$

$$GDP_{ti} = \beta_0 + \beta_1 Gdebt_{ti} + \beta_2 GE_{ti} + \beta_3 UY_{ti} + \beta_4 IR_{ti} + e_{ti} \quad \text{eql 4}$$

$$IR_{ti} = \beta_0 + \beta_1 Gdebt_{ti} + \beta_2 GE_{ti} + \beta_3 UY_{ti} + \beta_4 GDP_{ti} + e_{ti} \quad \text{eql 5}$$

Description :

Gdebt : Goverment Debt
GE : Goverment Expenditure
UY : Unemployment
GDP : Economic Growth
LTIR : Interest Rate
β : the magnitude of the effect of causality
t : time series
i : cross section
eql: equation
E : error term
To make it easier to understand the variables used, table 1 is presented. Table one is a variable description table that describes each variable used in this study including the source and unit of analysis.

Table 1. Variable Description

Variable	Explanation	Data type	Source
Gdebt	The growth of the state debt which is also a national public debt	Percent	World Bank
GE	Growth in government spending for one year on a national scale	Percent	World Bank
UY	National one-year unemployment growth	Percent	World Bank
GDP	Economic growth in a one-year period as indicated by the growth of gross domestic product in one year nationally	Percent	World Bank
IR	General and national interest rates are adjusted annually	Percent	World Bank

Result and Discussion

In autoregressive we need stationary data so we do a stationarity test. We used the first different in this study and it was proven that all data were stationary. The test results are presented in table 2.

Table 2. Philips-Perron 1st Difference Test

Variable	PP – Fisher stat.	Prob.	Description
Gdebt	60.2113	0.0001	Stationer
GE	53.1173	0.0002	Stationer
UY	37.1341	0.0001	Stationer
GDP	65.3451	0.0001	Stationer
IR	75.1223	0.0001	Stationer

The next step we take is to calculate the optimum level of delay or lag. It is very important to understand the optimal delay or time requirement of a variable in influencing other variables. To do this, an optimum lag test was carried out with the test results presented in table 3.

Table 3. The result of optimum lag test

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-211.3811	NA	124.3321.	17.13421	19.11232	16.25231
1	-321.4352	282.11127	234.6523	18.33423	19.15237*	17.25221
2	-223.3244	43.11181	411.1152	19.36672	18.51134	18.45227
3	-361.3126	37.51152	347.6117	17.14421	19.22141	19.25252
4	-341.2143	15.11629	223.3351	18.25663	17.11235	18.11232
5	-211.2927	12.14165	112.1342	19.33242	18.28283	18.17322
6	-255.2112	32.11321	121.2237	18.22471	19.86112	19.41221
7	-226.4332	33.25231*	128.6112	17.14532	18.55181	18.55242
8	-211.6644	31.81124	91.3128*	15.53527*	19.23741	17.42211*

We use the * sign to mark the optimum lag of each variable based on the available test equipment. The next step is to conduct a cointegration test. The cointegration test is used to investigate whether there is a relationship between variables. Cointegration test results are presented in table 4.

Table 4. Cointegration Test

	Value	Prob.	Value	Prob.
v-Stat.	-0.591121	0.6913	-1.241127	0.4225
rho-Stat.	1.234221	0.7221	1.285121	0.3215
PP-Stat.	-3.987629	0.0001	-5.381171	0.0001
ADF-Stat.	-2.282311	0.0079	-2.256272	0.0087

Based on the test results in table 4, there was no cointegration between variables so that Autoregressive Vector estimation could be carried out

Table 5. Panel Vector Autoregression Model Result

	Gdebt	GE	UY	IR	GDP
Gdebt	-0.176211	0.227126	0.001317	-0.022111	-0.115724
	(0.12422)	(0.22851)	(0.02432)	(0.0049)	(0.11522)
	[-1.35211]	[0.47112]	[0.15427]	[-1.15211]	[-1.55232]
GE	0.022111	-0.025243	-0.003422	0.001121	-0.052231
	(0.07113)	(0.11711)	(0.01121)	(0.00466)	(0.06752)
	[0.12352]	[-0.13322]	[-0.11332]	[0.13113]	[-1.04321]
UY	1.233523	-0.223211	-0.022422	0.021112	1.111122
	(1.01134)	(1.52112)	(0.21321)	(0.01116)	(1.01255)
	[1.02334]	[-0.11332]	[-0.22162]	[0.41221]	[1.11142]
IR	-1.211231	-1.313126	-0.012331	-0.011422	1.013221
	(0.23211)	(1.21271)	(0.21717)	(0.02331)	(0.61117)
	[-1.23211]	[-1.01112]	[-0.21412]	[-1.21211]	[1.26811]
GDP	-0.104223	0.411321	0.011211	-0.011167	-0.262122
	(0.43322)	(0.26112)	(0.01324)	(0.02432)	(0.32522)
	[-0.21556]	[0.34221]	[0.01121]	[-0.00225]	[-0.51122]
C	-2.117221	11.15221	-0.443122	0.427221	-2.271131
	(5.33222)	(14.32221)	(1.13211)	(0.43221)	(2.11247)
	[-1.21132]	[0.11214]	[-0.25249]	[1.12229]	[-0.43223]

The estimation results of the VAR Panel Model show a significant positive relationship between Government Debt and Government expenditure. Government debt and interest rates statistically have a negative and significant relationship. The relationship between government debt and unemployment (UNEM) shows a significant positive. However, government debt has a significant negative relationship with economic growth.

Conclusion

Government loans are public loans to encourage economic development. However, interest-bearing loans do not always drive the economy directly. This is evidenced by the interest pressure on economic growth and the higher the public loan, the more it suppresses economic growth and pushes up the unemployment rate. So that usury or interest burdens the economy and encourages an increase in unemployment. Debt slows population growth and productivity, which, in turn, does not generate the income needed to pay off or reduce debt burdens. This situation creates a vicious cycle of increasing debt and slow growth which is likely to continue. So, it only grows to serve the debt. This cycle of financial reliance is passed down from one generation to the next. Both the current generation and the generations after it are responsible for repaying the debts that were incurred in the past. Additionally, international political and economic organizations uphold agreements made by states to incur debt. Government spending in economic development does encourage economic growth but the leverage of government spending in encouraging economic growth in Indonesia is still not enough to compensate for the debt interest that must be paid by the public.

Limitation

This research is limited by data availability and research period

Sugestion

Public debt is a government action that has consequences in payments and a decrease in government revenue in the future. It also has the potential to depress the economy. The existence of interest rates which are usury is also clearly forbidden in Islam so it is necessary to carry out a non-usury monetary approach such as sukuk and private public partnerships.

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