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The Effect of External Public Debt and State Sukuk (SBSN) On Indonesia's Economic Growth: An Autoregressive Distributed Lag Approach

Fahmaninda Listiyani¹, Jaka Sriyana², Nirdukita Ratnawati³

¹ Islamic Economics and Finance, Universitas Trisaksi, Jakarta, Indonesia, nindalistiya@gmail.com

² Islamic Economics and Finance, Universitas Trisaksi, Jakarta, Indonesia, jakasriyana@uii.ac.id

³ Islamic Economics and Finance, Universitas Trisaksi, Jakarta, Indonesia, nirdukita.ratnawati@trisakti.ac.id

Corresponding Author: nindalistiya@gmail.com

Abstract: Indonesia's external public debt continues to grow with a ratio of 30.1% of GDP. In the first quarter of 2023, Indonesia's external public debt reached 199.4 billion US dollars or equivalent to 3000 trillion rupiahs. This condition makes Indonesia a debtor country that depend on international creditor countries or institutions. In addition, state sukuk as an alternative to state financing with sharia guidelines also continues to grow, but its performance cannot be equal to external public debt as one of the pillars of Indonesia's economic growth. Therefore, this study is present to analyse the effect of government external public debt paired with state sukuk as an Islamic fiscal variable on Indonesia's economic growth. Moreover, this study also analyses the factors that influence the growth of Indonesia's external public debt. The sample used to analyse the effect of government external public debt and state sukuk on Indonesia's economic growth was taken from the first quarter of 2010 to the first quarter of 2023. This study uses Autoregressive Distributed Lag (ARDL) to find empirical finding of the model. The results of this study indicate that the external public debt variable in the long term has a significant negative effect on economic growth while the state sukuk variable in the long term has no effect on economic growth.

Keyword: Economic Growth, External Public Debt, Government Sukuk/SBSN.

INTRODUCTION

The government often chooses the option of increasing foreign loans as a way to overcome the deficit between state revenues and expenditures. According to information found on the website of the Directorate General of Financing Management of the Ministry of Finance, government debt is divided into two forms, namely through direct loans and Government Securities (SBN). In terms of funding sources, government debt is divided into two, namely those originating domestically and those obtained from abroad. At the end of December 2022, the Ministry of Finance noted that government debt reached IDR 7,733.99 trillion. Of this amount, the majority of government debt is obtained in domestic currency, amounting to 70.75%. Thus, the proportion of external public debt stood at 29.25%, equivalent to IDR 2,262.19 trillion.

Although the data shows that external public debt no longer dominates government debt as it did in the old and new order eras, it is indeed important to further analyze external public debt. External public debt carries a higher risk than domestic debt. Two types of risks may arise from external public debt, namely global risk, and domestic risk. First, global risk involves increased risk in terms of debt servicing ability due to the economic slowdown in emerging markets and falling commodity prices that affect the value of exports. Second, global risk is related to refinancing issues and the increased burden of servicing external public debt due to limited global liquidity. On the other hand, macro domestic risks include the potential vulnerability of external vulnerabilities (DSR, gross external funding, debt/PIB, and risk premium). At the micro level, risks are related to exchange rate mismatches, excessively high debt burden, and foreign currency liquidity risk (Satya, 2015).

The Indonesian government's decision to issue debt, particularly external public debt, aligns with neo-classical economic theory, which posits a positive correlation between debt and economic growth (Arnone et al., 2005). Gaies et al. (2019) argue that opening up a liberal economy is crucial for the economic progress of developing nations. Neo-classical economics thesis in international finance indicates that an open liberal economy offers advantages such as better capital mobilization and allocation, more efficient risk sharing, and growth for domestic financial systems. The neo-classical growth model explains the direct relationship between debt and economic growth by highlighting how borrowed funds can serve as an investment tool. Neo-classical economics suggests that assuming macroeconomic variables remain stable, borrowed funds should be utilized for profitable investments and allocated to sectors that have a direct impact on a nation's economic growth, allowing the government to repay the debt promptly (Ehikioya et al., 2020). Therefore, neo-classical economic growth theory postulates a direct correlation between government debt and a country's economic growth.



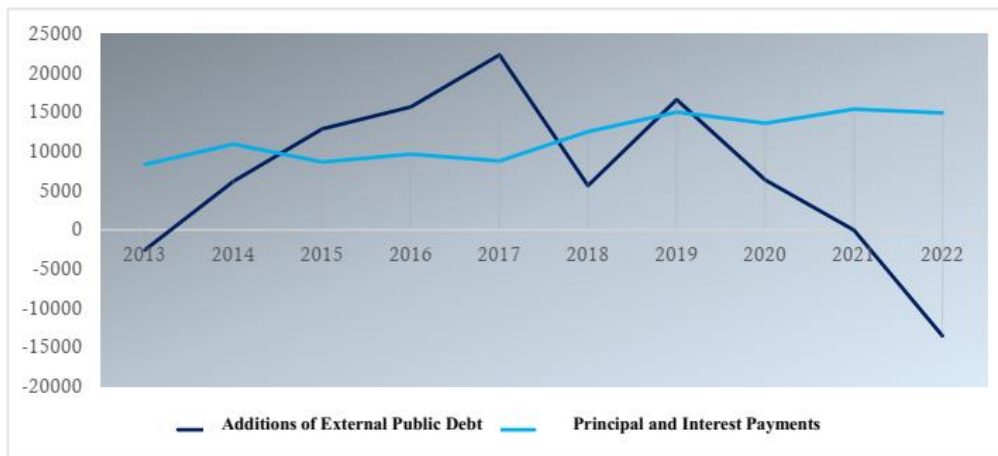
Source: Bank of Indonesia and Ministry of Finance RI, 2023

Figure 1: GDP Growth (%) and Indonesia's Government External Debt (Billion USD)

Although the government's objective in issuing debt is in line with neo-classical economic principles that support economic growth through loan assistance, the data obtained regarding Indonesia's economic growth and government external public debt shows a different trend. Information contained in the February 2023 release of Statistics on Indonesia's External public debt (SULNI, February 2023) states that in the fourth quarter of 2022, the government's external public debt position reached USD 186.5 billion, with an annual contraction of 6.8% (yoy). This figure was lower than the contraction in the previous quarter, which reached 11.3% (yoy). The decline in Indonesia's external public debt in 2022 coincided with an increase in Indonesia's economic growth of 5.31%. The effect of reducing foreign borrowing on Indonesia's economic growth only occurred in 2022. However, in previous years, external public debt growth was always negatively related to Indonesia's economic growth. This phenomenon can be seen in Figure 1, which illustrates the growth of

Indonesia's Gross Domestic Product (GDP) and Indonesia's External public debt in the last 10 years, namely 2013-2022.

Why does increasing debt accumulation lead to a decline in economic growth? To answer this question, we refer to the debt overhang theory proposed by Krugman (1988). The debt overhang theory was first proposed in two articles, first by Krugman (1988) and second by Sachs (1989). Both articles analyzed the situation in countries that are unable to pay their debt burden without obtaining new loans. According to Krugman (1988), a debt overhang situation occurs when the potential future value of assets, valued at present, is insufficient to pay off the country's debt obligations (Arnone et al., 2005).



Source: Bank of Indonesia, 2023

Figure 2: Difference between Additions of External Public Debt and Principal and Interest Payments (Million US\$)

The increase in the amount of debt accumulated by the government will add to the burden on the State Budget. This phenomenon can be observed from the spike in the payment of principal installments and interest on maturing external public debt each year. In the figure above, it can be seen that in 2013, 2014, 2018, 2020, 2021, and 2022, the amount of principal and interest payments exceeded the amount of new debt added. In 2022, the government's external public debt decreased by USD 13.5 billion. This decline also occurred in line with increasing uncertainty in global financial markets. In addition, the decline in government external public debt was also due to the repayment of several maturing program and project loans. Although the government's external public debt has decreased, installments of principal and interest still run continuously, resulting in a deficit of 28.4 billion USD that must be borne by the government in 2022. Based on this data, it can be said that Indonesia has been caught in a debt trap that forces the government to continue to dig into debt to pay debts every year. Cyrillus (2002) in his research on "Government Debt: Development, Prospects, and Management" stated that many developing countries use foreign loans as an effort to boost economic growth, although many of these countries are caught in a debt trap.

The external public debt burden, which includes principal and interest repayments, is increasing from year to year in line with the growth in the amount of government external public debt. The impact is a burden on the State Budget. Mankiw (2006) states that high external public debt in a country's budget is a new form of colonialism. Mack (2001) explains that aid from donor countries to Indonesia has a hidden purpose. The term a hidden purpose according to Mack refers to donor countries wanting to get something in return, namely control over key industrial sectors in Indonesia. Mack argues that the rewards demanded by donor countries have an impact on reducing the space for local companies to manage the extractive industry sector that generates large profits. Foreign interests in Indonesia have

resulted in local companies becoming passive and subservient to foreign companies as corporate producers in Indonesia, making them marketing agents for their products.

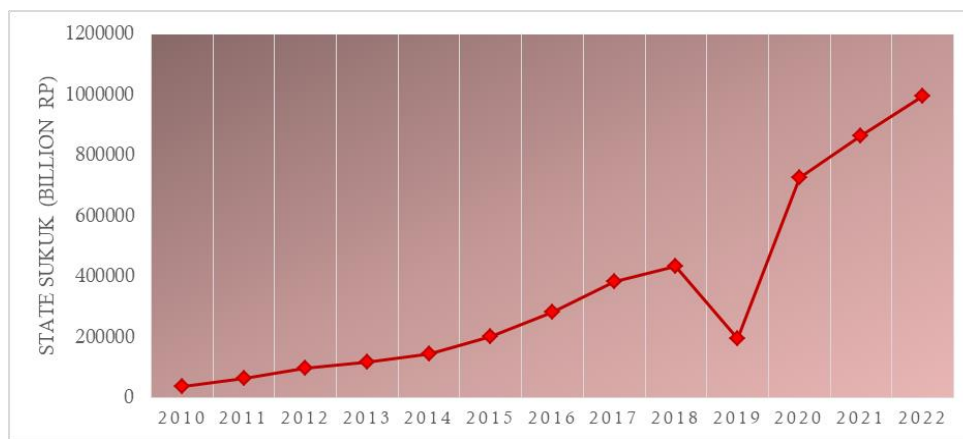
Regarding the relationship between external public debt and a country's economic growth, there are different opinions from previous studies. Kausar et al. (2022) argue that external public debt is the main factor causing the economic slowdown in Pakistan. However, Kikuchi & TBe (2021), Suidarma & Yasa (2021), and Darmawati, Suparta & Saimul (2021) argue that there is a positive influence of external public debt on Indonesia's economic growth. Meanwhile, Safwat, Salah & Sherif (2021), Kurniasih (2021), Awan & Qasim (2020), Annisa, Nairobi & Taher (2022), and Sari (2022) stated that there is a negative relationship between external public debt and economic growth.

The various risks and weaknesses that can be caused by external public debt as described in some of the phenomena above, can be concluded that the conventional fiscal concept involving external public debt causes unsustainability. Answering the weaknesses of the conventional fiscal system, Islam comes as a religion of rahmatan lil alamin that provides solutions in every line of human life including the fiscal economic system. Therefore, this study considers it necessary to include state sukuk as an Islamic economic variable which is expected to be a solution to the problems caused by usury-laden external public debt. State sukuk or what can be referred to as State Sharia Securities (SBSN) is one of the Islamic financial instruments that has developed in the last two decades. The issuance of SBSN series that use underlying assets in the form of infrastructure projects can help the government reduce the burden of state spending.

Umar bin al-Khattab, the first caliph, played an important role in the creation of Sukuk by putting a stamp on the Sukuk paper. This stamp served as a sign of validation and authentication for the Sukuk issuance process. This Sukuk was used specifically to pay the salaries of state employees (Al Parisi & Rusydiana, 2016). In the early Hijri years, Muslims, in the context of international trade, used sukuk as a means of financial transactions. Sukuk were used by traders as documents indicating financial obligations arising from commercial enterprises and other business activities. During medieval times, Muslim merchants commonly used sukuk as a means to signify financial obligations stemming from trade and other commercial ventures (Fasa, 2016).

In modern times, the emergence of sukuk was driven by the aim to avoid usury practices inherent in conventional bonds and to seek alternative sharia-compliant financing instruments for entrepreneurs or the state (Fasa, 2016). This motivation is supported by the issuance of fatwas from scholars that prohibit the use of conventional bonds, for example, the Fatwa of the National Sharia Council of the Indonesian Ulema Council No. 32/DSN-MUI/IX/2002 on Sharia Bonds. Based on the findings of Rahardjo (2003), the legal basis of sharia bonds in Indonesia can be summarized as follows: a) The agreement of scholars on the prohibition of interest (usury); b) The agreement of scholars on the prohibition of bonds that provide returns in the form of interest (coupons); c) The opinion of scholars on Islamic bonds based on the principles of mudharabah, murabahah, musyarakah, istishna', and salam; and d) The issuance of fatwas by the National Sharia Council, specifically Fatwa No. 20/DSN/IV/2001 on the Implementation of Mutual Fund Investments and Fatwa No. 32/DSN-MUI/IX/2002 on Sharia Bonds (Datuk, 2014).

About SBSN, the Indonesian government issued SBSN for the first time in 2008 based on Law No. 19 of 2008 concerning State Sharia Securities (SBSN). This SBSN Law was issued in conjunction with the SBSN fatwa issued by DSN-MUI with the following numbers NO: 69/DSN-MUI/VI/2008 on State Sharia Securities, No. 70/DSN-MUI/VI/2008 on the Method of Issuance of State Sharia Securities, and No. 72/DSN-MUI/VI/2008 on State Sharia Securities: 72/DSN-MUI/VI/2008 on Ijarah Sale and Lease Back Government Sharia Securities.



Source: Bank of Indonesia, 2022.

Figure 3: Growth of State Sukuk in Indonesia (Billion Rp)

In Figure 3 above, it can be seen that state sukuk has been quite developed, as evidenced by its growth always in an upward trend. Only in 2019, state sukuk fell dramatically, although in 2020 SBSN was able to rebound to a higher level than in 2018. Although the development of state sukuk is quite good, compared to external public debt, financing from sukuk is quite small. Data obtained from Indonesian economic statistics issued by Bank Indonesia in March 2023, SBSN in 2022 only amounted to 996.4 trillion rupiah, while government external public debt in 2022 amounted to 3,050.9 trillion rupiah. The imbalance between the amount of state sukuk and external public debt shows that the Indonesian government has not made sukuk the main financing instrument. Sukuk has high connectivity to the real sector. With Islamic financial contracts that are entirely based on the real sector, sukuk automatically has a direct link with this sector.

External public debt as one of the government's tools to cover the budget deficit does not always have a positive and significant impact on Indonesia's economic growth. This is illustrated by the theoretical and empirical phenomena contained in the background of the problem in this study. Islam as a religion that is *rahmatan lil alamin* also sees external public debt as a tool that has the potential to cause problems in a country's economy. Therefore, the research will aim to: 1) determine the impact of external public debt and sukuk on Indonesia's economic growth; 2) provide policy recommendations following the results of the study.

METHOD

This research is included in quantitative research, which is a systematic investigation that uses logical reasoning and hypotheses, following the principles of scientific thought and the research process (Berryman, 1999). The type of data used in this study is secondary data or data obtained or collected by people conducting research from existing sources. The sample used to analyze the effect of government external public debt and state sukuk on Indonesia's economic growth was taken from the first quarter of 2010 to the first quarter of 2023. To analyze the factors that influence external public debt, this study used a sample of the first quarter of 2012 - the fourth quarter of 2022. The dependent variable used in this study is economic growth, while the independent variables consist of external public debt and sukuk. In addition, this study will also use control variables such as trade openness, and foreign investment. The operational definition of variables can be seen in the following table:

Table 1: Operational Definition of Variables

Variables	Definitions	Units	Resources
External public debt	External public debt is debt owned by the central government, consisting of bilateral, multilateral, commercial, supplier debt and Government Securities	Billion US\$	Bank of Indonesia

	(SBN) issued abroad and domestically owned by non-residents.		
Economic Growth	Economic growth is the process of changing the economic conditions of a country in a sustainable manner towards a better state over a certain period.	%	Indonesian Statistic Body
State Sukuk (SBSN)	State sukuk are state securities issued based on sharia principles, as evidence of participation in SBSN assets, both in rupiah and foreign currencies.	Trillion IDR	Bank of Indonesia
Foreign Direct Investment (FDI)	Foreign investment is the transfer of capital, either real or unreal from one country to another, the purpose of which is to be used in that country to generate profits under the supervision of the owner of the capital, either in total or in part.	Trillion IDR	Ministry of investment RI
Trade Openness	The level of trade openness is used to determine how much the economy is open in a region.	%	Ministry of Trade RI

This research will utilize the autoregressive distributed lag (ARDL) model, which can address stationarity issues in data. In contrast, the error correction model (ECM) is only suitable for data with the same level of differentiation. The equation for the model of economic growth, foreign debt, and Sukuk is as follows:

$$GROWTH_t = \beta_0 + \beta_1 ULN_t + \beta_2 SUKUK_t + \beta_3 FDI_t + \beta_4 OPEN_t + e_t \dots \dots \dots (1)$$

Notes: *GROWTH* = economic growth; *ULN* = external public debt; *SUKUK* = state sukuk; *FDI* = foreign investment; *OPEN* = trade openness. The variables of foreign investment and openness are as control variables. The equation for the ARDL model for equation (1) is written as follows:

$$\Delta GROWTH_t = \alpha_0 + \sum_{i=1}^n \alpha_{1i} \Delta GROWTH_{t-1} + \sum_{i=1}^n \alpha_{2i} \Delta ULN_{t-1} + \sum_{i=1}^n \alpha_{3i} \Delta SUKUK_{t-1} + \sum_{i=1}^n \alpha_{4i} \Delta FDI_{t-1} + \sum_{i=1}^n \alpha_{5i} \Delta OPEN_{t-1} + \theta_1 GROWTH_{t-1} + \theta_2 ULN_{t-1} + \theta_3 SUKUK_{t-1} + \theta_4 FDI_{t-1} + \theta_5 OPEN_{t-1} + e_t \dots \dots \dots (2)$$

The ARDL model in the form of an error correction model of the ARDL equation (2) is written as follows:

$$\Delta GROWTH_t = \alpha_0 + \sum_{i=1}^n \alpha_{1i} \Delta GROWTH_{t-1} + \sum_{i=1}^n \alpha_{2i} \Delta SUKUK_{t-1} + \sum_{i=1}^n \alpha_{3i} \Delta ULN_{t-1} + \sum_{i=1}^n \alpha_{4i} \Delta FDI_{t-1} + \sum_{i=1}^n \alpha_{5i} \Delta OPEN_{t-1} + \vartheta ECT_{t-1} + u_t \dots \dots \dots (3)$$

The next model, namely the factors that affect external debt (ULN), can be written in the following equation:

$$ULN_t = \beta_0 + \beta_1 INF_t + \beta_2 KURS_t + \beta_3 TB_t + \beta_4 DA_t + e_t \dots \dots \dots (4)$$

Description: *ULN* = external public debt; *INF* = inflation; *KURS* = exchange rate; *TB* = trade balance; *DA* = budget deficit; β_0 = constant; β_1, \dots, β_5 = regression coefficients of independent variables; *e* = error term; *t* = time period. Meanwhile, the ARDL model equation for equation (4) is written as follows:

$$\Delta ULN_t = \alpha_0 + \sum_{i=1}^n \alpha_{1i} \Delta ULN_{t-1} + \sum_{i=1}^n \alpha_{2i} \Delta INF_{t-1} + \sum_{i=1}^n \alpha_{3i} \Delta KURS_{t-1} + \sum_{i=1}^n \alpha_{4i} \Delta TOB_{t-1} + \sum_{i=1}^n \alpha_{5i} \Delta DA_{t-1} + \theta_1 ULN_{t-1} + \theta_2 INF_{t-1} + \theta_3 KURS_{t-1} + \theta_4 TB_{t-1} + \theta_5 DA_{t-1} + e_t \dots \dots \dots (5)$$

Δ is the lag. The coefficients α_{1i} to α_{5i} model the short-run dynamic relationship and the coefficients θ_1 to θ_5 model the long-run dynamic relationship. The important thing in

estimating ARDL is to determine the optimal lag length using the Akaike Information Criterion (AIC) or Schwarz Information Criterion (SIC).

The ARDL model in the form of an error correction model of the ARDL equation (5) is written as follows:

$$\Delta ULN_t = \alpha_0 + \sum_{i=1}^n \alpha_{1i} \Delta ULN_{t-1} + \sum_{i=1}^n \alpha_{2i} \Delta INF_{t-1} + \sum_{i=1}^n \alpha_{3i} \Delta KURS_{t-1} + \sum_{i=1}^n \alpha_{4i} \Delta TB_{t-1} + \sum_{i=1}^n \alpha_{5i} DA_{t-1} + \vartheta ECT_{t-1} + u_t$$

.....(6)

ECT_{t-1} is an error correction variable (residual) from the previous period.

RESULTS AND DISCUSSION

The stationarity test in this study is using the unit root test using the Phillips-Perron (PP) method.

Table 2: Level Stationarity Test Results

Variabel	Phillips-Perron Test Statistic
(GROWTH)	-3.2512
(ULN)	-1.3801
(SUKUK)	-0.0026
(FDI)	-1.1938
(OPEN)	-3.4518*
Test critical values MacKinnon	
1% level	-4.1446
5% level	-3.4987
10% level	-3.1786

Description: *, **, *** significant p<0.1; p<0.05; p<0.01.

Based on Table 2 above, it can be seen that only the trade balance variable (TB) is stationary at the level (PP statistical value > MacKinnon's critical value = 5%), while other variables such as economic growth variables (GROWTH), external debt (ULN), sukuk (SUKUK), foreign investment (FDI), trade openness (OPEN), are not stationary at the level level. This can be seen from the Phillips-Perron statistical value which is less than the MacKinnon critical value at the 5% confidence level. Therefore, further testing to the first difference level is required.

Table 3: 1st Difference Stationarity Test Results

Variabel	Phillips-Perron Test Statistic
(GROWTH)	-7.7135***
(ULN)	-7.6774***
(SUKUK)	-10.1087***
(FDI)	-6.4483***
(OPEN)	-12.1657***
Test critical values MacKinnon	
1% level	-4.1485
5% level	-3.5005
10% level	-3.1796

Description: *, **, *** significant p<0.1; p<0.05; p<0.01.

Based on Table 3 above, it can be seen that all variables used in the study are stationary at the first difference level. It can be seen from the Phillips-Perron statistical value greater than the MacKinnon critical value at the 5% confidence level. The ARDL model can be used to overcome the problem of different stationarity levels and none of them are stationary at the second difference level. Therefore, it can be said that this test has met the requirements of ARDL estimation because there are variables that have been stationary at the level level,

while others are at the first difference level. This ARDL estimation is used to determine the optimal lag length using the Akaike Information Criterion (AIC) method.

Table 4: ARDL Estimation Results

Dependent Variable: GROWTH			
Method: ARDL			
Selected Model: ARDL(3, 3, 4, 0, 0)			
Variable	Coefficient	Std. Error	t-Statistic
GROWTH(-1)	0.6227	0.1518	4.1034***
GROWTH(-2)	-0.1322	0.1945	-0.6796
GROWTH(-3)	-0.4124	0.1696	-2.4319**
ULN	0.0379	0.0484	0.7838
ULN(-1)	0.1039	0.0538	1.9332*
ULN(-2)	-0.1096	0.0567	-1.9330*
ULN(-3)	-0.0751	0.0494	-1.5201
SUKUK	-0.0376	0.0100	-3.7591***
SUKUK(-1)	0.0099	0.0109	0.9009
SUKUK(-2)	-0.0055	0.0102	-0.5399
SUKUK(-3)	0.0089	0.0121	0.7364
SUKUK(-4)	0.0309	0.0123	2.5057**
OPEN	0.0269	0.0337	0.7982
FDI	0.0170	0.0153	1.1081
C	7.8521	3.5237	2.2284**
Adjusted R-squared	0.7306		
F-statistic	10.2989***		

Description: *, **, *** significant p<0.1; p<0.05; p<0.01.

Based on Table 4 above, it can be seen that the optimal lag length in model 1 is ARDL(3, 3, 4, 0, 0). The details are as follows: a) GROWTH has a lag length of 3; b) external debt has a lag length of 3; c) SUKUK has a lag length of 4; d) OPEN has a lag length of 0; e) OPEN has a lag length of 0. OPEN has a lag length of 0; e) FDI has a lag length of 0.

The ARDL estimation method (determining the best lag) is using Ordinary Least Square (OLS), so an autocorrelation test is required. This test is very important for time series data, because if exposed to autocorrelation problems it can cause the estimation results to be biased.

Table 5: Autocorrelation Test Results

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.2603	Prob. F(2,22)	0.2973
Obs*R-squared	3.5777	Prob. Chi-Square(2)	0.1671

Description: *, **, *** significant p<0.1; p<0.05; p<0.01.

Based on Table 5 above, it can be seen that the probability of Obs*R² is more than 0.05 (0.17 > 0.05), therefore it can be concluded that this test accepts H0 or there is no autocorrelation problem in the model under study.

Table 6: Cointegration Test Results

F-Bounds Test				
Test Statistic	Value	Signif.	Null Hypothesis: No levels relationship	
			I(0)	I(1)
F-statistic	5.2965	10%	2.2	3.09
K	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

Description: *, **, *** significant p<0.1; p<0.05; p<0.01.

Based on Table 6 above, it can be seen that the F-statistic value is greater than the upper bound value or I(1) at the 5% confidence level ($5.30 > 3.49$). Therefore, it can be said that there is cointegration among the variables studied.

This section is used to determine the effect of the relationship between each independent variable on the dependent variable both in the long term and in the short term. The Error Correction Term (ECT) method is used to determine the short-term relationship between variables in the study.

Table 7: Long-term and Short-term Test Results

ARDL Long Run Form		
Dependent Variable: GROWTH		
Selected Model: ARDL(3, 3, 4, 0, 0)		
Variable	Coefficient	t-Statistic
ULN	-0.0465	-2.57540**
SUKUK	0.0071	1.559087
OPEN	0.0292	0.771993
FDI	0.0184	1.115543
ARDL Error Correction Regression		
Dependent Variable: GROWTH		
Selected Model: ARDL(3, 3, 4, 0, 0)		
ECM Regression		
Variable	Coefficient	t-Statistic
D(GROWTH(-1))	0.5446	3.9052***
D(GROWTH(-2))	0.4124	2.8175***
D(ULN)	0.0379	1.0134
D(ULN(-1))	0.1847	4.6286***
D(ULN(-2))	0.0751	1.9947*
D(SUKUK)	-0.0376	-5.4049***
D(SUKUK(-1))	-0.0342	-3.2463***
D(SUKUK(-2))	-0.0398	-4.2616***
D(SUKUK(-3))	-0.0309	-3.3109***
CointEq(-1)*	-0.9219	-6.0376***
Adjusted R-squared	0.5854	

Description: *, **, *** significant $p < 0.1$; $p < 0.05$; $p < 0.01$.

Based on Table 8, it can be seen that in the long run, the external debt variable (ULN) harms economic growth. This can be seen from the t-statistic probability value, which is less than 0.05 ($\alpha = 5\%$). While in the short term, the external debt variable (ULN) affects economic growth only at lag 1. The sukuk variable in the long term was found to not affect economic growth, while in the short term as a whole, both from lag 1 to lag 3 harmed economic growth.

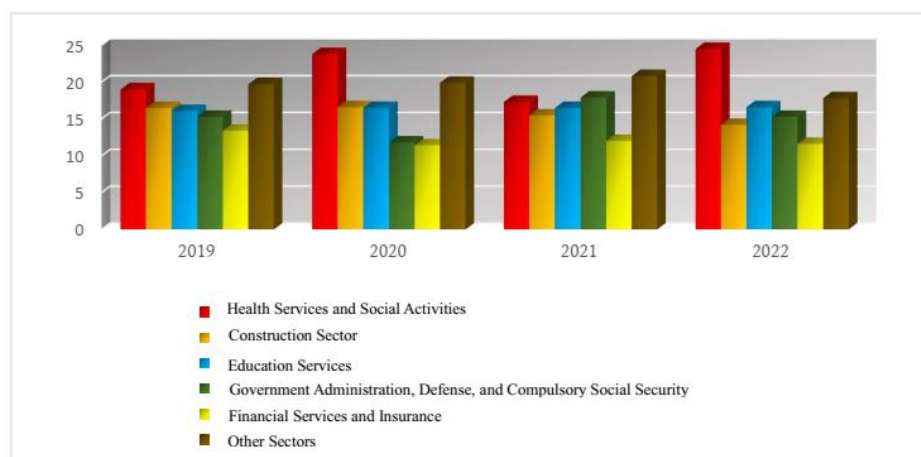
The CointEq(-1)* value shows a negative and significant direction, so it can be concluded that the ARDL-ECM model is valid, and has cointegration between the dependent and independent variables. The adjusted R2 value shows 0.585, which means that in the short term, the independent variables of foreign debt and sukuk can explain the dependent variable of economic growth by 58.5%. While the remaining 41.5% ($100\% - 58.5\%$) is explained by variables outside the research model. In addition, the control variables in this study, be it trade openness (OPEN) or foreign direct investment (FDI), were found to not affect economic growth. This can be seen from the probability value of the t-statistic for both variables which is more than 0.05 ($\alpha = 5\%$).

Relationship between Foreign Debt and Economic Growth

Based on Table 8, it can be seen that the foreign debt variable (ULN) in the long term has a significant negative effect on economic growth (GROWTH). This can be seen from the t-statistic probability value of less than 0.05 ($\alpha = 5\%$), with a coefficient value of -0.047, which means that when foreign debt increases by US\$ 1 billion, economic growth will decrease by 0.047%. This result is in accordance with the hypothesis proposed, the accumulation of foreign debt and interest paid in installments in the long term can lead to reduced public welfare so that it will become a burden on the community, especially taxpayers.

This result is also supported by several previous studies conducted by Kharusi & Ada (2018) in Oman, Awan & Qasim (2020) in Pakistan, Safwat, Salah & Sherif (2021) in Egypt, and Sari (2022) in Indonesia which found that foreign debt harms economic growth. Furthermore, Safwat, Salah & Sherif (2021) stated that the negative relationship between external debt and economic growth is because a large amount of money must be given as debt repayment and the amount of debt slows down the process of economic growth and increases the country's dependence on foreign resources. In addition, lending countries lend money while keeping in mind their political and strategic objectives and impose strict conditionality on the borrowing country. While foreign loans accelerate the development process and meet the twin deficits, they create multidimensional problems if the borrowed money is used for unproductive purposes or wasted through embezzlement and corruption.

The government states that the management of government external debt is prioritized to finance development, with the largest portion in several productive sectors that support economic growth and improve people's welfare. Based on figure 4, it can be seen that the allocation of government external debt to the productive sector over the past 4 years has averaged only 15.7% (construction sector) and 12.1% (financial services and insurance), which means that around 50% of the debt is allocated for consumptive purposes (health services and social activities, education services, government administration, defense, and compulsory social security). Therefore, it can be said that external debt put greater allocation to the consumptive sector rather than productive sectors.



Source: Bank of Indonesia, 2019-2022.

Figure 4: Allocation of Government External Debt by Sector in 2019-2022 (%)

Meanwhile, in the short term, foreign debt has a significant positive effect on economic growth only at lag 1. This can be seen from the t-statistic probability value, which is less than 0.05 ($\alpha = 5\%$), which means that when foreign debt increases, economic growth will also increase. In the short term, foreign debt is very helpful to the Indonesian government to close the budget deficit so that the economic growth rate can be achieved by the previous target. Still related to the previous results, in the long run, foreign debt can also cause various

economic problems, such as a depreciated rupiah exchange rate, and burden the state budget position.

This concept is in line with our consumption-dominated economic structure, where consumption tends to generate short-term benefits. However, since debt is mostly used for short-term spending, the multiplier effect, in the long run, will be reduced. As the positive multiplier effect diminishes in the long run, the country is still burdened by the principal and interest payments that still have to be paid because the tenors chosen by the government are mostly long-term tenors. As a result, in the long run, external debt hurts economic growth.

The Role of Sukuk on Economic Growth

Based on Table 8, it can be seen that the variable sukuk (SUKUK) in the long term does not affect economic growth (GROWTH) (H_0 accepted). This can be seen from the probability value of the t-statistic more than 0.05 ($\alpha = 5\%$). This result is not in accordance with the hypothesis proposed that sukuk has a positive influence on economic growth. The results of this study are also supported by previous research conducted by Yuliani, et al. (2022), Setianingsih & Widyastuti (2020) in Indonesia, Echchabi, Aziz & Idris (2018) in the GCC countries which found that sukuk had no significant impact on economic growth.

As for why sukuk does not affect economic growth when juxtaposed with foreign debt, namely because the nominal value of sukuk is still very small. As of the fourth quarter of 2022, the nominal sukuk amounted to 996.4 trillion rupiahs, while Indonesia's foreign debt reached 186.5 trillion US dollars. In addition, sukuk was first issued in Indonesia in 2009, and sukuk are usually long-term projects, so to see the effect of sukuk on economic growth certainly requires a longer time. This is of course the impact of sukuk on growth is very small. While in the short term as a whole, both lag 1 to lag 3 sukuk hurt economic growth. This can be seen from the t-statistic probability value which is less than 0.05 ($\alpha = 5\%$), which means that when sukuk increases, economic growth will decrease. Sukuk are long-term securities based on Sharia principles. In this sense, it is clear that sukuk is long-term, and based on real projects, in the short term within a span of 3 quarters, of course, sukuk has not seen its impact on economic growth and even has a negative influence because the projects undertaken by sukuk in the short term will incur a lot of costs so that it will reduce economic growth.

Conventional financial methods have a close relationship with interest, which is full of usury. This method has negative consequences for the economy which is increasingly burdened by interest on loans. In addition, sukuk as an innovative product of Islamic finance, has gained significant recognition in the global financial market due to international interest in Islamic finance (Benbekhti et al., 2019). These instruments play an important role in raising funds, addressing budget shortfalls, and financing projects, particularly in infrastructure. Moreover, Islamic instruments, including sukuk, play an important role in minimizing risk and promoting stability (Akhtar & Jahromi, 2015). Boumediene (2015) observed that several Muslim countries have made efforts to develop Sharia-compliant methods to finance budget deficits and manage liquidity.

The lack of multiplier effect generated by state sukuk financing cannot be separated from the lack of sectors financed by SBSN. SBSN has not been able to contribute much to economic growth because most SBSN is only focused on infrastructure financing, there is no SBSN financing that targets other important sectors such as agriculture, manufacturing, mining, oil and gas, and several other important sectors.

Although SBSN is currently still in a development period which have not yet affected Indonesia's economic growth, this study still encourages the government to make SBSN becomes the main financing other than external debt. Apart from the fact that SBSN eliminates the element of usury in its financing transactions, SBSN has been proven to have a good impact on the economy. There has been a lot of empirical evidence stating that sukuk

has a positive impact on economic growth. Khoutem (2014) presents evidence of the role of sukuk development in the Tunisian economy, where the government there has used sukuk as an effective means to finance infrastructure and agricultural projects. Sukuk issuance serves as an alternative source of funding to bridge liquidity gaps, address resource scarcity, navigate international market crises, and meet urgent financing needs (Araar, 2014).

Furthermore, Malikov (2017) found that in the long run, there were significant positive changes in various indicators after sukuk issuance, including improvements in infrastructure provision, GDP per capita growth, and overall economic development in Malaysia. In addition, although sukuk are more sensitive to changes in economic conditions, they remain more sustainable and stable during financial crises due to their strong link to both real and monetary economic fundamentals (Ahmad & Radzi, 2011).

CONCLUSION

Based on this research, the external public debt variable, in the long run, has a significant negative effect on economic growth. This result is in accordance with the hypothesis proposed, where according to debt overhang theory, the accumulation of foreign debt and interest paid in installments over the long term can lead to reduced public welfare so it will become a burden on the community, especially taxpayers. Taxes should be used for programs that can directly benefit the welfare of the community, but some are used to pay principal and interest on the debt. This issue is in line with the crowd-out effect theory, which states that the government is required to choose debt financing, which will certainly reduce the potential for increased economic growth. Meanwhile, in the short term, foreign debt has a significant positive effect on economic growth only at lag 1, which means that when foreign debt increases, economic growth will also increase. In the short term, foreign debt is very helpful to the Indonesian government to finance routine expenditure and development expenditures.

State sukuk variables in the long term do not affect economic growth. State sukuk does not affect economic growth because when compared to the value of foreign debt, the nominal value of state sukuk is still very small. State sukuk usually finance long-term projects, so, to see the effect of state sukuk on economic growth certainly requires a longer time. While in the short term as a whole, state sukuk has a negative effect on economic growth. In the short term within a span of 3 quarters, of course, the state sukuk has not seen its impact on economic growth and even has a negative influence. It is because the projects undertaken by the state sukuk in the short term will incur a lot of costs so that it will reduce economic growth. Although SBSN is currently still in a development period whose effects have not yet affected Indonesia's economic growth, this study still encourages the government to make SBSN the main financing other than external debt. Moreover, SBSN eliminates the element of usury in its financing transactions.

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