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Do Retail and Non-Retail State Sharia Securities Promote Economic Growth in Indonesia? Evidence from an ARDL Approach

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Abstract

State Sharia Securities or Surat Berharga Syariah Negara (SBSN) have become an increasingly important instrument for financing Indonesia's fiscal needs, yet the economic effects of retail- and non-retail-oriented issuances may differ because they target different investor segments and financing channels. This study examines the short- and long-run roles of Non-Retail SBSN and Retail SBSN in Indonesia's economic growth. Using a quantitative time-series approach, the study analyzes 60 quarterly observations from 2009Q1 to 2023Q4 and applies the Autoregressive Distributed Lag (ARDL) method in EViews 13. Trade openness, the Consumer Price Index (CPI), and the BI Rate are included as macroeconomic control variables, while GDP represents economic growth. The findings show that Retail SBSN and CPI are significantly associated with GDP in the short run, whereas Non-Retail SBSN, trade openness, and CPI are significant in the long run. The results indicate that the contribution of SBSN to economic growth differs across investor segments and time horizons. Policy efforts should therefore strengthen the productive allocation of SBSN proceeds while expanding retail participation and Islamic financial literacy so that sovereign sukuk can contribute more effectively to sustainable economic activity.

Keywords: *Autoregressive Distributed Lag, Economic Growth, Sharia Securities*

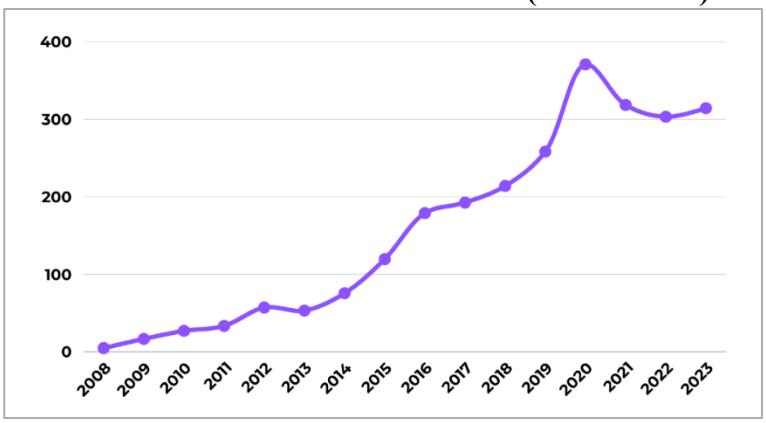
INTRODUCTION

Fiscal deficits remain an important issue in Indonesia because public expenditure must support development while maintaining fiscal sustainability. The Government of Indonesia has increasingly relied on domestic financing instruments to reduce dependence on external debt and broaden the investor base. Within this framework, State Sharia Securities (Surat Berharga Syariah Negara/SBSN) have developed into a strategic sharia-compliant financing instrument since their introduction under Law No. 19 of 2008 and DSN-MUI Fatwa No. 69/DSN-MUI/VI/2008. SBSN proceeds are used for general financing and project financing, including infrastructure and other public-sector development programs (Direktorat Pembiayaan Syariah, 2015; Kementerian Keuangan RI, 2023; Kementerian Keuangan, 2025).

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The scale of SBSN issuance has expanded substantially since 2008, with issuance reaching a peak during the fiscal response to the COVID-19 pandemic. However, aggregate issuance conceals important differences between investor segments. SBSN can be grouped into Non-Retail SBSN, which predominantly targets institutional and large investors, and Retail SBSN, which targets individual Indonesian investors. These instruments differ in issuance frequency, investment size, investor characteristics, and the channels through which mobilized funds may affect economic activity. Distinguishing the two groups is therefore important when assessing whether sovereign sukuk contribute uniformly to economic growth (Mitsaliyandito et al., 2017).

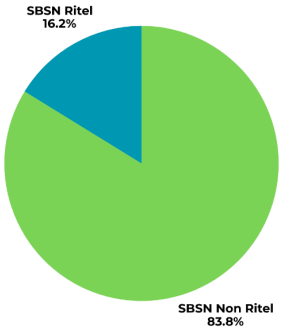
Figure 1
Chart SBSN Issuance 2008 – 2023 (IDR Trilion)



Source : Directorate Ministry of Finance's Sharia Financing Directorate General of Public Works and Public Housing

Figure 1 shows that SBSN issuance reached peaked in 2020. Total publication in a year amounting to Rp370.9 trillion. This happen Because existence easing 2020 state budget deficit due to the Covid 19 pandemic which touched 6.14% of GDP so that financing the required deficit is also increasing big (Warta Pemeriksa, 2022). SBSN is divided into 8 types instruments, namely : Islamic Fixed Rate (IFR), SPNS or called Surat Perbendaharaan Negara Syariah, Project Based Sukuk (PBS), SNI or called SukukNegara Indonesia, SDHI or called SukukNegara Indonesia, SR or called Sukuk Ritel, Saving Sukuk (ST), and Cash Waqf Linked Sukuk (CWLS). If divided to in cluster publishing based on investors, SBSN is divided into two, namely Non- Retail SBSN and Retail SBSN. As illustrated in Figure 2, total SBSN issuance has been dominated by the Non-Retail segment.

Figure 2
Percentage of Total Issuance SBSN Cluster 2008 – 2023



Source : Directorate Ministry of Finance's Sharia Financing Directorate General of Public Works and Public Housing

Figure 2 shows the total SBSN issuance since 2008 to 2023, Non- Retail SBSN Still dominate by 83.8%. This is happen Because Non- Retail SBSN instruments more many, more often auctioned, and the nominal value of the issue each the series big. As instrument financing, results SBSN issuance is used for two purposes that is *general financing* and *project financing* (Direktorat Pembiayaan Syariah, 2015). Examples use of publishing funds For *project financing,* namely like development Youtefa Bridge, Papua; *Double-Double Track* Manggarai-Cikarang Railway ; Makassar Hajj Dormitory; and others (Kementerian Keuangan, 2025). With its size results issuance of SBSN which has been collected government and with Enough many projects that have been financed by SBSN funds, author try analyze How the role of SBSN both Non-Retail and Retail in push growth economic growth in Indonesia. economy is important indicators in see performance main economy a country. Growth economy can also describe effectiveness the country's economy is shown with consistent GDP growth from time to time (Fauzan & Anindyntha, 2024).

Previous studies generally support a relationship between sukuk and economic growth, but the evidence remains mixed. Ledhem (2022) reports a positive contribution of sukuk financing to economic growth in Southeast Asian economies, whereas Tan & Shafi (2021) find that sukuk do not constitute a long-run driver of Malaysian economic growth. In Indonesia, Hadiningdyah et al. (2024) identify a positive relationship between State Sukuk issuance and economic growth, while Ulfah & Sugiarti (2024) focus specifically on Retail Sukuk and Savings Sukuk and also report a positive contribution. These studies establish the relevance of sukuk for macroeconomic performance but do not fully resolve whether different SBSN investor segments generate different short- and long-run effects.

Accordingly, two gaps remain. First, most previous studies treat sukuk or SBSN as an aggregate instrument or focus only on selected retail instruments, leaving the distinction between Non-Retail and Retail SBSN insufficiently examined. Second, several Indonesian studies rely on approaches that do not explicitly distinguish short-run adjustment from long-run equilibrium relationships. The ARDL framework is useful in this context because it allows the effects of SBSN and relevant macroeconomic controls to be assessed across different time horizons (Direktorat Pembiayaan Syariah, 2015).

This study therefore examines the roles of Non-Retail SBSN and Retail SBSN in promoting Indonesia's economic growth in the short and long run using quarterly data from 2009Q1 to

2023Q4. Trade openness, CPI, and the BI Rate are incorporated as control variables to provide a broader macroeconomic specification. By separating SBSN according to investor segment and applying an ARDL framework, the study seeks to provide more specific evidence on how sovereign Islamic financing is associated with Indonesia's economic growth.

The novelty of this study lies in disaggregating SBSN issuance according to investor segment, namely Non-Retail SBSN and Retail SBSN. This distinction remains relatively underexplored in previous studies. Separating the two categories is important because they differ in characteristics, issuance objectives, investor profiles, and market segmentation, which may result in different effects on economic growth.

Accordingly, this study aims to examine the roles of Non-Retail SBSN and Retail SBSN in promoting Indonesia's economic growth in the short and long run. Trade openness, CPI, and the BI Rate are included as additional explanatory variables to provide a broader macroeconomic specification, while GDP is used to represent economic growth because it reflects domestic economic activity (Syahputra, 2017).

LITERATURE REVIEW

Economic growth

Economic growth is a major policy objective for every country. Economists and statisticians use several indicators to assess economic performance, with Gross Domestic Product (GDP) being among the most widely used. Economic growth refers to an expansion in economic activity that increases the production of goods and services and, in turn, can improve public welfare (Bella & Inas, 2023; Sukirno, 2010).

Theory about growth economy is one of them explained by experts economy that is RF Harrod and Evsey Domar. Harrod-Domar revealed the theory about role investment in support growth economy national. Harrod-Domar's theory explains that investment as capital formation has two functions in push growth economy a country (Sukirno, 2006). First, capital formation or investment considered as additional expenses ability economy in produce goods. Second, capital formation or investment considered as expenses that will be incurred add request effective all over society. So, if moment This done investment or capital formation, then in the future come ability For produce goods will the more big and things the will increase total Gross Domestic Product (Sukirno, 2006).

State Sharia Securities

Under the expenditure approach to national income, investment is one of the components of aggregate expenditure and therefore plays an important role in economic growth. Sukuk constitute one form of investment instrument. The term sukuk is the plural form of the Arabic word sakk, which refers to a certificate or document (Simangunsong & Barika, 2025).

In a way terminologically, sukuk is instrument shaped certificate with equivalent value, which reflects ownership No divided on something assets, benefits from assets, services, or project certain (Direktorat Pembiayaan Syariah, 2015). Sukuk issued by the government as one of the form financing deficit also called State Sharia Securities. In Constitution Number 19 Years explained that the State Sharia Securities (SBSN) or can called State Sukuk is letter valuable state issued based on sharia principles, as proof on part inclusion to SBSN assets, both in rupiah currency or foreign currency.

SBSN is divided into two based on the target investors, namely Non- Retail SBSN and Retail SBSN. Non- Retail SBSN intended for for institutional investors or individuals who have capacity big financial like banking, companies, or institutions other with a large nominal investment, namely a minimum of IDR 10 billion. Meanwhile that, Retail SBSN intended for for individual investors or Indonesian citizens. Retail SBSN can purchased through agent seller with a minimum order of IDR 1 million and a maximum of IDR 10 billion.

Instruments included in Non- Retail SBSN including : IFR, SPNS, PBS, SNI, SDHI, and Non- Retail CWLS or Sukuk Wakaf (SW). Meanwhile, Retail SBSN instrument consists of from SR, ST, and CWLS Retail or Sukuk Waqf Retail (SWR).

Openness Trading

Openness Trading is amount import and export on GDP. The theory about openness trading can explained with Profit Theory Comparatives expressed by experts economy classic, David Ricardo. According to theory put forward by David Ricardo, every country or group public recommended For focus production of commodities featured them to achieve efficiency. The resulting production surplus Then Can traded to other countries. So, results from trading the can used For buy goods others who don't can produced domestic. Openness trading will make Indonesia have opportunity For market its products in the international market. This is marked with decline obstacle like tariffs, quotas and regulations other For trade results production in other countries (Zikratunnisa & Aimon, 2024).

Consumer Price Index

Consumer Price Index (CPI) is serving size average price shift common goods and services consumed by the community in period certain (Noor & Komala, 2019). Shift price goods and services toward the increase that occurred continously called as inflation, and CPI becomes indicator commonly used For calculation level inflation in Indonesia. The CPI is calculated and published the data every month by the Central Bureau of Statistics of Indonesia. CPI is calculated based on pattern consumption results Consumer Price Survey (SSP) in 90 cities. Since In 2020, the CPI was calculated with use year 2018 base (2018 = 100). Consumer Price Survey usually done to respondents selected, usually the one who works as trader retail. Development or CPI fluctuations show level price goods and services consumed society. In addition to see increase prices, CPI is also used For describe level increase income, as well as become reject measuring magnitude cost production (Noor & Komala, 2019).

BI Rate

The BI Rate refers to Bank Indonesia’s policy interest-rate benchmark and serves as an important reference for financial-market interest rates (Departemen Komunikasi BI, 2024). The purpose of The BI Rate is determined for, among other things, control inflation and maintaining economy still stable. When inflation beyond target threshold, Bank Indonesia will take step For increase the BI Rate, while If inflation falls below the target, BI will also adapt with lower the BI Rate. BI Rate is one of the variables macro the economy used in study This Because according to Keynes's theory quoted from Ismail et al. (2020) state that indicator growth economy that is consists of from power work, interest rates, and money. The BI *Rate* becomes instrument control interest rate used by the Indonesian central bank to reach target policy monetary (Kemu & Ika, 2016).

METHOD

This study employs a quantitative time-series design to examine the short- and long-run relationships between State Sharia Securities (SBSN) and Indonesia's economic growth. The sample consists of 60 quarterly observations covering 2009Q1–2023Q4. GDP is used as the dependent variable, while Non-Retail SBSN, Retail SBSN, trade openness, CPI, and the BI Rate are included as explanatory variables (Widarjono, 2018).

The data are secondary data obtained from official and institutional sources. GDP and CPI data are sourced from Statistics Indonesia (BPS), SBSN issuance data from the Directorate of Sharia Financing, Directorate General of Budget Financing and Risk Management (DJPPR), trade-openness data from the World Bank, and BI Rate data from Bank Indonesia. The operational definitions and transformations of the variables are summarized in Table 1.

Table 1
Description Variables Study

Variables	Notation	Description	Data source
Product Gross Domestic Product (Y)	ln_PDB	Natural logarithm of GDP. Total activity production domestic goods and services.	Central Bureau of Statistics
Retail SBSN (X1)	ln_NonRetail	Natural logarithm of publishing data SBSN instruments issued for non- retail investors.	Directorate DJPPR Sharia Financing
Retail SBSN (X2)	ln_Retail	Natural logarithm of publishing data SBSN instruments issued for retail investors.	Directorate DJPPR Sharia Financing
Openness Trade (X3)	ln_Trade	Natural logarithm of Openness Trade. Amount exports and imports to GDP.	World Bank
Consumer Price Index (X4)	CPI	Percentage average price change goods / services consumed public in a way general.	Central Bureau of Statistics
BI Rate (X5)	BI_Rate	Percentage the reference interest rate set by BI for achieve the inflation target.	Bank Indonesia

The ARDL analysis is conducted through several stages: stationarity testing, cointegration testing, optimal-lag selection, diagnostic testing, ARDL estimation, short- and long-run estimation, and model-stability testing (Widarjono, 2018). All estimations are performed using EViews 13.

The long-run ARDL equation used in this study is specified as follows :

$$PDB_t = \beta_0 + \beta_1 NonRitel_t + \beta_2 Ritel_t + \beta_3 Trade_t + \beta_4 IHK_t + \beta_5 BIRate_t + \varepsilon_t$$

The corresponding short-run ARDL error-correction specification is expressed as follows :

$$\Delta PDB_t = \alpha_0 + (\sum_{i=1}^{n} a_{1i} \Delta GDP_{t-1}) + (\sum_{i=1}^{n} a_{2i} \Delta NonRetail_{t-1}) + (\sum_{i=1}^{n} a_{3i} \Delta Retail_{t-1}) + (\sum_{i=1}^{n} a_{4i} \Delta Trade_{t-1}) + (\sum_{i=1}^{n} a_{5i} \Delta IHK_{t-1}) + (\sum_{i=1}^{n} a_{6i} \Delta BIRate_{t-1}) + \vartheta ECT_{t-1} + u_t$$

Where:

Δ	: Delta, change variables from period previously
GDP	: Variable Product Gross Domestic Product
α_0, β_0	: Constants
$\alpha_{1i} - \alpha_{6i}, \beta_1 - \beta_5$	: Coefficient regression
Non-Retail	: Non- Retail State Sukuk Variable
Retail	: Retail State Sukuk Variable
Trade	: Variable Openness Trading
CPI	: Variable Consumer Price Index
BIRate	: Bank Indonesia Rate Variable
ECT	: *Error Correction Term*
εt, ut	: Residual

RESULTS

The empirical analysis begins with a stationarity test using the Augmented Dickey–Fuller (ADF) unit-root test. Testing for stationarity is necessary in time-series analysis to reduce the risk of spurious regression results.

Table 2
Stationarity Test

Variables	Level		First Difference	
	Prob.	Decision	Prob.	Decision
Ln GDP (Y)	0.2736	Non-Stationary	0.0377	Stationary
Retail Sukuk Ln (X1)	0.9104	Non-Stationary	0.0428	Stationary
Retail Sukuk Ln (X2)	0.9057	Non-Stationary	0.0001	Stationary
Ln Trade (X3)	0.6861	Non-Stationary	0.0323	Stationary
CPI (X4)	0.1619	Non-Stationary	0.0000	Stationary
BI Rate (X5)	0.1975	Non-Stationary	0.0018	Stationary

Source : Processed data

The ARDL approach can accommodate variables that are stationary at level, I(0), or at first difference, I(1), but not variables integrated of order two, I(2), or higher. As shown in Table 2, all variables become stationary at first difference. The analysis can therefore proceed to the ARDL bounds test to determine whether a long-run cointegrating relationship exists among the variables.

Table 3
Cointegration Test

Bound Test				
Test Statistics	Value	Significant.	I(0)	I(1)
F-statistic	5,562708	10%	2.08	3.00
		5%	2.39	3.38
		1%	3.06	4.15

Source : Processed data

The bounds-test results in Table 3 show an F-statistic of 5,562708, which exceeds the upper-bound critical value of 3,38 at the 5% significance level. This result indicates cointegration among the variables and supports the existence of a long-run relationship. The next step is to evaluate the diagnostic properties of the estimated model.

Table 4
Normality Test

Normality Test: Jarque-Bera			
Jarque-Bera	0.145262	Prob.	0.92994

Source : Processed data

The Jarque–Bera test is used to assess residual normality. As shown in Table 4, the probability value is 0,92994, which is greater than 0,05. The null hypothesis of normality is therefore not rejected, indicating that the residuals are approximately normally distributed.

Table 5
Multicollinearity Test

Variable	Centered VIF	Decision
D(LN_ PDB(-1))	2.863544	Not occur Multicollinearity
D(LN_ PDB(-2))	1.898603	Not occur Multicollinearity
D(LN_ PDB(-3))	2,147463	Not occur Multicollinearity
D(LN_ PDB(-4))	1.827632	Not occur Multicollinearity
D(LN_NONRITEL)	2,410135	Not occur Multicollinearity
D(LN_RITEL)	2,524313	Not occur Multicollinearity
D(LN_ RETAIL(-1))	2.029806	Not occur Multicollinearity
D(LN_ RETAIL(-2))	2,296874	Not occur Multicollinearity
D(LN_ RETAIL(-3))	1.847181	Not occur Multicollinearity
D(LN_ RETAIL(-4))	2,407792	Not occur Multicollinearity
D(LN_TRADE)	3.634599	Not occur Multicollinearity

Variable	Centered VIF	Decision
D(LN_ TRADE(-1))	3.633547	Not occur Multicollinearity
D(LN_ TRADE(-2))	4,707620	Not occur Multicollinearity
D(CPI)	1,369176	Not occur Multicollinearity
D(CPI(-1))	1,279876	Not occur Multicollinearity
D(CPI(-2))	1,306769	Not occur Multicollinearity
D(CPI(-3))	1,277318	Not occur Multicollinearity
D(BI_RATE)	1,512597	Not occur Multicollinearity

Source : Processed data

Table 5 reports the centered Variance Inflation Factor (VIF) values used to assess multicollinearity. All centered VIF values are below 10, indicating no evidence of severe multicollinearity among the explanatory variables in the estimated model.

Table 6
Heteroscedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	0.426289	Prob. F(18,36)	0.9718
Obs *R-squared	9.663278	Square Prob. (18)	0.9423
Scaled explained SS	3.651293	Square Prob. (18)	0.9999

Source : Processed data

The Breusch–Pagan–Godfrey test is used to examine heteroscedasticity. Table 6 reports a probability value of 0.9423 for Obs*R-squared, which exceeds 0.05. The null hypothesis of homoscedasticity is therefore not rejected, indicating no evidence of heteroscedasticity in the model.

Table 7
Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.403947	Prob. F(2,34)	0.6708
Obs *R-squared	1,276553	Square Prob. (2)	0.5282

Source : Processed data

Autocorrelation is assessed using the Breusch–Godfrey Serial Correlation LM test. As shown in Table 7, the probability value for Obs*R-squared is 0,5282, which is greater than 0,05. Thus, there is no evidence of serial correlation in the residuals, and the analysis can proceed to interpretation of the ARDL estimates.

Table 8
Analysis Results with the ARDL method

Method: ARDL
Dependent Variable: D(LN_PDB)
Model selection method: Akaike info criterion (AIC)
Selected model: ARDL(4,0,4,2,3,0)

Variable	Coefficient	Prob.*	Significance
D(LN_ PDB(-1))	-0.172444	0.1104	Not Significant
D(LN_ PDB(-2))	-0.405959	0.0000	Significant
D(LN_ PDB(-3))	-0.262131	0.0060	Significant
D(LN_ PDB(-4))	0.446619	0.0000	Significant
D(LN_NONRITEL)	0.084094	0.0313	Significant
D(LN_RITEL)	-0.001280	0.9543	Not Significant
D(LN_ RETAIL(-1))	0.058514	0.0058	Significant
D(LN_ RETAIL(-2))	-0.036568	0.0937	Not Significant
D(LN_ RETAIL(-3))	0.011606	0.5449	Not Significant
D(LN_ RETAIL(-4))	0.030964	0.1590	Not Significant
D(LN_TRADE)	0.014107	0.8650	Not Significant
D(LN_ TRADE(-1))	0.566148	0.0000	Significant
D(LN_ TRADE(-2))	-0.128352	0.1973	Not Significant
D(CPI)	0.000634	0.0600	Not Significant
D(CPI(-1))	0.000866	0.0094	Significant
D(CPI(-2))	0.000217	0.4997	Not Significant
D(CPI(-3))	0.000831	0.0122	Significant
D(BI_RATE)	0.006892	0.2502	Not Significant
C	0.014550	0.0088	Significant
R-squared	0.843484	F-statistic	10.77828
Adjusted R-squared	0.765227	Prob(F-statistic)	0.000000

Source : Processed data

Table 8 reports the selected ARDL model. Based on the Akaike Information Criterion (AIC), the optimal specification is ARDL(4,0,4,2,3,0). In the order of the variables included in the model, this specification indicates four lags for GDP, zero lags for Non-Retail SBSN, four lags for Retail SBSN, two lags for trade openness, three lags for CPI, and zero lags for the BI Rate.

The overall model is statistically significant, as indicated by the F-statistic probability of 0,0000. At the individual level, several coefficients are statistically significant at their respective lags, including lagged GDP, current Non-Retail SBSN, lagged Retail SBSN, lagged trade openness, and selected CPI lags. These results provide the basis for the subsequent short- and long-run estimations.

The adjusted R-squared value is 0,7652, indicating that approximately 76,52% of the variation in the dependent variable is explained by Non-Retail SBSN, Retail SBSN, trade openness, CPI, the BI Rate, and the dynamic terms included in the model. The remaining variation is attributable to factors outside the specification and the model's residual component.

Table 9
Estimation Results Term Short

ARDL Error Correction Regression			
Variable	Coefficient	Prob.	Significance
D(LN_ PDB(-1),2)	0.221471	0.1423	Not Significant
D(LN_ PDB(-2),2)	-0.184488	0.0822	Not Significant
D(LN_ PDB(-3),2)	-0.446619	0.0000	Significant
D(LN_RITEL,2)	-0.001280	0.9336	Not Significant
D(LN_ RETAIL(-1),2)	-0.006003	0.7403	Not Significant
D(LN_ RETAIL(-2),2)	-0.042571	0.0065	Significant
D(LN_ RETAIL(-3),2)	-0.030964	0.0446	Significant
D(LN_TRADE,2)	0.014107	0.8219	Not Significant
D(LN_ TRADE(-1),2)	0.128352	0.1251	Not Significant
D(IHK,2)	0.000634	0.0164	Significant
D(CPI(-1),2)	-0.001049	0.0040	Significant
D(CPI(-2),2)	-0.000831	0.0031	Significant
CointEq (- 1)*	-1.393915	0.0000	Significant

Source : Processed data

Table 9 indicates that Retail SBSN and CPI contain statistically significant short-run terms. For Retail SBSN, the coefficients at the second and third lags are -0,042571 and -0,030964, respectively. These negative coefficients indicate an inverse short-run association between lagged changes in Retail SBSN and changes in GDP. Because the exact percentage interpretation depends on the transformation and differencing used in the estimated equation, the coefficients should be interpreted consistently with the model specification rather than mechanically multiplied by 100.

For CPI, the first- and second-lag terms reported in Table 9 are statistically significant and negative, with coefficients of -0,001049 and -0,000831, respectively. These results indicate a negative short-run association between lagged changes in CPI and changes in GDP. The remaining explanatory variables do not show statistically significant short-run terms in the error-correction representation reported in Table 9.

The error-correction term, CointEq(-1), is statistically significant and negative, with a coefficient of -1,393915. This confirms the presence of an adjustment mechanism toward the long-run equilibrium. Because the coefficient is less than -1, however, its interpretation requires care: it indicates rapid adjustment with possible overshooting rather than a simple statement that equilibrium is reached in 1,39 quarters.

Table 10
Estimation Results Long- term

Long Run Form			
Variable	Coefficient	Prob.	Significance
D(LN_NONRITEL)	0.060329	0.0083	Significant

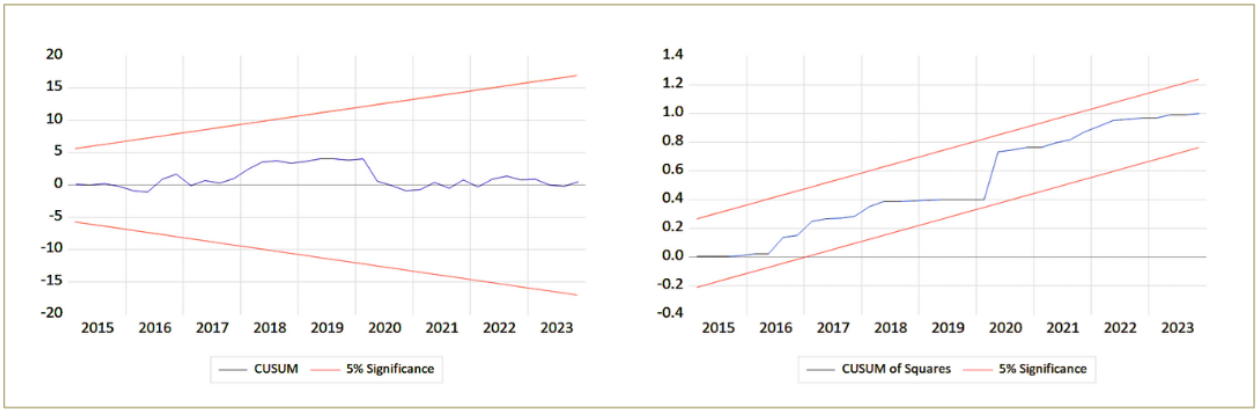
Long Run Form			
Variable	Coefficient	Prob.	Significance
D(LN_RITEL)	0.045367	0.0506	Not Significant
D(LN_TRADE)	0.324196	0.0000	Significant
D(CPI)	0.001828	0.0006	Significant
D(BI_RATE)	0.004945	0.2341	Not Significant
C	0.010439	0.0004	Significant
EC = D(LN GDP) - (0.0603*D(LN_NON-RETAIL) + 0.0454*D(LN_RETAIL) + 0.3242*D(LN_TRADE) + 0.0018*D(CPI) + 0.0049*D(BI_RATE) + 0.0104)			

Source : Processed data

Table 10 shows that Non-Retail SBSN, trade openness, and CPI are statistically significant in the reported long-run specification, and all three coefficients are positive. The coefficient for Non-Retail SBSN is 0,060329, indicating a positive long-run association with GDP. The magnitude should be interpreted according to the exact logarithmic and differenced specification used in the model.

Trade openness has a coefficient of 0,324196, while CPI has a coefficient of 0,001828; both are statistically significant. These estimates indicate positive long-run associations with GDP in the reported model. Retail SBSN and the BI Rate are not statistically significant in the long-run specification. Percentage interpretations should follow the transformations used for each variable and should not be inferred solely by multiplying the reported coefficients by 100.

Figure 3
Stability Test



Source : Processed data

After estimating the short- and long-run relationships, model stability is assessed using the CUSUM and CUSUM of Squares tests. The CUSUM test is commonly used to assess parameter stability, while the CUSUM of Squares test is sensitive to changes in residual variance. As shown in Figure 3, the plotted statistics remain within the 5% significance boundaries, indicating that the estimated ARDL model is stable over the sample period.

DISCUSSION

Retail SBSN to Economic growth

Retail SBSN shows statistically significant short-run terms with negative coefficients in the error-correction specification. This suggests that increases in Retail SBSN issuance may be associated with weaker GDP dynamics over particular short-run lags. This finding is consistent with who report a significant negative relationship between SBSN and economic growth in Indonesia, and with Bella & Inas (2023) who identify a negative effect of Sovereign Retail Sukuk on economic growth.

One possible explanation is the short-run absorption of household liquidity through retail sukuk issuance. When household funds are redirected toward Retail SBSN, liquidity available for immediate consumption or other financial intermediation may decline. As retail SBSN products expand and public awareness of sharia investment increases, part of household savings may also shift from bank deposits to government securities. Yaya and Sofiyana (2018) show that government retail sukuk can affect the collection of third-party funds by Islamic banks, providing a possible channel through which such portfolio shifts may influence short-run economic activity (Yaya & Sofiyana, 2018).

In the long run, Retail SBSN is not statistically significant in the reported model. This result is broadly consistent with who find that sukuk and conventional bonds are not long-run drivers of economic growth in Malaysia. The comparison suggests that the existence of a sukuk market alone does not necessarily guarantee a measurable long-run growth effect; the economic impact may depend on the scale, structure, and use of the funds mobilized.

A possible explanation for the insignificant long-run relationship is that Retail SBSN proceeds may not always be directly linked to productive projects. During the early issuance period, particularly from 2009 to 2011, Retail Sukuk (SR) used State Property (BMN), including land and buildings, as underlying assets. Such assets may support issuance structures without necessarily generating an immediate productive impulse to the real economy.

Ilmi (2024) examines the optimization of State Property as an underlying asset for sukuk and notes that some government assets remain idle, underused, or underutilized. Revitalizing such assets requires substantial investment, and sukuk may provide a financing mechanism for this purpose (Setiawan & Suwandaru, 2024).

Ilmi (2024) further argues that optimizing and revitalizing State Property used as sukuk underlying assets has the potential to support long-run economic activity. Nevertheless, limited public financial literacy and relatively modest retail issuance remain challenges. As Figure 2 indicates, Retail SBSN accounts for a considerably smaller share of total SBSN (King et al., 2026; Soans et al., 2025; Tshaka et al., 2026) issuance than the Non-Retail.

Retail SBSN to Economic growth

Unlike Non - Retail SBSN, Retail SBSN show significant relationship in a way statistics in estimate term short, but direction the coefficient negative. In other words, the increase amount of Retail SBSN precisely potential pressing rate growth economics. Findings This consistent with study Andiansyah et al. (2022)which reveals that SBSN has correlation negative significant to growth economy in Indonesia. Similar things expressed by Bella & Inas (2023)the discoverer that Retail Sukuk (SR) also has an impact negative in a way significant to growth economy.

Significance negative shown by Retail SBSN to growth economy in term short possible Because absorption liquidity public through the issuance of the sukuk. When public funds diverted

For investing in Retail SBSN, the amount of money in circulation tend decreased, which can pressing request aggregate to goods and services. More continue, with the more development innovation Retail SBSN products as well as increasing literacy public to sharia investment, instruments This become alternative choice shifting investment preference public from saving in banking. Transfer of funds from sector banking to Retail SBSN can reduce amount of party funds the third one available in banking, which in the end can influence activity economy in term short (Yaya & Sofiyana, 2018).

In estimate term long, Retail SBSN No show significant influence to growth economics. Findings This in harmony with results study Tan & Shafi (2021)who analyzes capital market contribution to growth economy in Malaysia with take into account the role of sukuk as one of the instrument Islamic finance, together with other capital market components during 1998–2018 period. This research concludes that both sukuk and conventional bonds are not drivers of long-term economic growth in Malaysia.

There is a number of possibilities that can explain why SBSN Retail Not yet show influence significant to growth economy in term long. One of them is Not yet optimally distribution of sukuk funds to sectors productive. Not all funds are generated SBSN issuance is used for finance project development. In the period beginning publication, namely from 2009 to 2011, Retail Sukuk (SR) were traded with *underlying* assets in the form of State Property (BMN), such as land and buildings, which are inclined nature passive and not yet in a way direct support activity economy productive.

Study on SBSN issuance with *underlying asset* in the form of State Property (BMN) in frame push growth economy has done by Ilmi (2024). In In his research, Ilmi identified that a number of large BMN in condition No active (*idle*), not yet utilized optimally (*underused*), and Not yet used in accordance with potential maximum (*underutilized*). For return mark the economic value of the BMN is needed investment in amount big, so that required instrument financing like sukuk.

In his research,Ilmi conclude that optimization and revitalization of BMN used as *underlying assets* of sukuk have potential become form State Capital Participation (PMN) is available stimulate growth economy in term long. However in fact, the low level literacy and interest public against State Sukuk still become challenge separately. The results of the issuance of Retail SBSN also amount to Still Enough small, only 1: 5 (one in five) of the total issuance of Non- Retail SBSN.

The Role of Transparency Trading to Economic growth

The results of this study show that in the short term, trade openness does not yet have a significant impact on economic growth. On the other hand, in the long term, trade openness is proven to have a significant influence in driving economic growth.

These findings are in line with research conducted by Sunaryo & Kasri (2022) who evaluates influence industry Islamic finance towards growth economy, including openness trading as factor external. They found that in term short, openness trading No give impact significant to growth economy, which supports findings similar in studies This.

Writer participate study *working paper* which is results from discussion in an international seminar organized by the National Bureau of Economic Research (NBER), written by Baldwin (2003). Document the discuss various economists ' views about connection between openness trade and growth economy. One of the studies that become highlight main in discussion the is

results research by Francisco Rodriguez and Dani Rodrik (2001), which provides contribution important in debate academic related topic This.

Baldwin conclude that according to Rodriguez and Rodrik, openness trade that is interpreted as liberalization trade namely deletion obstacle tariffs and non- tariffs no necessarily capable push growth economy in a way fast, especially in term short. They emphasize that in order for openness trading can contribute in a way real to growth economy, is needed prerequisite in the form of system mark stable and non - discriminatory exchange rate policy wise monetary and fiscal, and governance free economy from corruption.

For estimate term length, results study this strengthen findings Fitriani et al. (2021). This study analyzes cointegration and shows the existence of a significant positive relationship between trade openness and economic growth in Indonesia. In the aforementioned studies, the import indicator was identified as the element of openness that provides the largest contribution to the improvement of national economic growth.

According to Fitriani et al., the majority of Indonesian imports consist of raw materials and auxiliary materials. This type of import has the potential to drive economic growth in the long term, because these goods are used as inputs in the domestic production process. Through this production process, the value of the goods is increased, and the final products can be consumed domestically and re-exported internationally. This activity ultimately creates added value and drives economic growth in a sustainable manner..

This analysis is in line with the Comparative Advantage Theory expressed by David Ricardo. This theory recommends that a country or community group should focus on the production of commodities that have a relative advantage, so that economic efficiency can be achieved. The surplus of production can then be traded with other countries to obtain goods that are not produced efficiently domestically.

The role of CPI in Economic growth

In the short run, CPI has statistically significant negative lagged coefficients in the reported model. This indicates an inverse short-run association between changes in consumer prices and GDP dynamics. Ikhsan (2022) discussing Indonesia's unusually low inflation in 2021, relates weak price pressures during the pandemic period to subdued domestic demand and the incomplete recovery of aggregate expenditure.

Ikhsan (2022) explains that low inflation in the years surrounding the COVID-19 pandemic partly reflected weak aggregate demand. Household consumption of goods and services declined, while the recovery in demand remained incomplete. At the same time, food supply, particularly rice production, remained relatively stable, contributing to subdued price pressures. He also notes that economic shocks and inflation dynamics can have disproportionate effects on low-income households. During crises, vulnerable households may reduce long-term expenditures, including education and nutritional consumption. This provides a broader demand-side context for understanding the relationship between price developments and economic activity during periods of disruption (Lahiri & Darity, 2024).

Taken together, these conditions suggest that the short-run relationship between CPI and economic growth during the sample period should be interpreted in the context of macroeconomic instability surrounding the pandemic. The negative short-run coefficients do not imply that lower prices mechanically cause higher growth; rather, they reflect the dynamic relationship captured by the estimated model.

In the long run, CPI is positively and significantly associated with GDP in the reported specification. This result is consistent with Kunthi et al. (2023) who also report a positive long-run relationship involving CPI and economic growth. As a price-level indicator, CPI should be interpreted in conjunction with the broader objective of maintaining low and stable inflation (Bank Indonesia, 2025).

Sustainable economic growth generally requires price stability (Dinh et al., 2025; Ullah et al., 2024). Persistently high inflation can erode real purchasing power and reduce household welfare, whereas excessively weak price growth may coincide with subdued demand and weak economic activity. Accordingly, the positive long-run CPI coefficient should not be interpreted as evidence that higher inflation is inherently beneficial; rather, it underscores the importance of interpreting price developments within a stable macroeconomic environment (Bank Indonesia, 2025).

The role of the BI Rate in Economic growth

The BI Rate is not statistically significant in either the short- or long-run results reported in this study. In the selected ARDL specification, the BI Rate has no lagged short-run terms, while its long-run coefficient is also statistically insignificant. Thus, the model does not provide sufficient evidence that changes in the BI Rate are directly associated with GDP over the sample period.

This result is consistent with Suganda et al. (2024), who use an ECM approach to examine foreign direct investment, the BI Rate, and the money supply and find no significant short- or long-run effect of the BI Rate on economic growth. Komalasari et al. (2024) similarly report that interest rates do not significantly contribute to Indonesia's economic growth in their specification.

Komalasari et al. (2024) argue that policy-rate changes may not affect all households uniformly because saving and borrowing responses depend on income, financial access, and financial behavior. Limited financial literacy, consumption patterns, and low saving capacity among some households may weaken the direct transmission from policy interest rates to aggregate economic growth (Abbas, 2025; Chen et al., 2025; Santoso et al., 2023).

CONCLUSION

The findings indicate that the contribution of SBSN to Indonesia's economic growth differs by investor segment and time horizon. Retail SBSN is associated with short-run GDP dynamics, whereas Non-Retail SBSN is more relevant to the long-run relationship. Trade openness and consumer prices also form part of the long-run growth relationship, while the BI Rate is not statistically significant in either horizon. Overall, the results suggest that treating SBSN as a single aggregate instrument may conceal meaningful differences between retail- and non-retail-oriented sovereign sukuk.

The findings imply that the economic contribution of SBSN depends not only on the volume of issuance but also on the investor segment and the channel through which the proceeds are mobilized and allocated. For the Ministry of Finance, strengthening the productive orientation of SBSN financing particularly project-based issuance may reinforce its long-run contribution to economic activity. At the same time, broader retail participation can be supported through more inclusive distribution channels and stronger Islamic financial literacy. For policymakers, SBSN should therefore be viewed not merely as a deficit-financing instrument but as part of the broader architecture of sharia-compliant public financing and domestic capital-market development.

This study is limited by its aggregate quarterly design and by the set of macroeconomic controls included in the ARDL specification. The analysis does not directly identify the sectoral channels through which SBSN-funded projects affect output, nor does it distinguish the effects of individual SBSN instruments within the retail and non-retail groups. Future research may incorporate variables such as gross fixed capital formation, government expenditure, or other GDP components and may examine specific SBSN instruments or project-financing channels to clarify the mechanisms linking sovereign sukuk to economic growth.

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