

Effect of Bi Rate and Inflation To Debt Yield Country (Sun)

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ABSTRACT

This research is intended to determine the effect of BI Rate and inflation on yield of SUN. This research applies secondary data monthly period 2011-2017. Data collection methods used in this study are documentation. The analysis based on the kendall correlation (Kendall's Tau) and kendall concordance test (Kendall's W Test). The result shows that the independent variables simultaneously significant effect on yield of SUN. In partial BI Rate and inflation did not significantly on yield of SUN. This finding could be explored that BI Rate and inflation had no effect related to yield of SUN which can be affected by the investor's decision to invest funds to bonds.

Keywords: BI Rate, Inflation, Yield Of Sun.

INTRODUCTION

Growth economy in a number of year final this is at a sufficient level height and thing this driven by role shopping government filled from state revenues and sources financing. However sadly enhancement shopping government the still not yet followed by an increase later state revenue result in appearance deficit Budget State Revenue and Expenditure (APBN). Moment this the Indonesian government is operate policy deficit budget with destination for push growth moderate economy walk because of that, the government utilise sources available financing for close deficit budget that. There are 2 (two) sources state budget financing , namely source debt financing and resources non-debt financing . Source financing originating from non-debt moment this the number is very limited, so government must capable maximizing debt as source financing (Yuliana, 2016).

Trend increase need financing state budget cash has push government for more many publish letter worth remembering loan soft the number is very limited and not could used for finance need loan cash for close state budget deficit. Issuance of State Securities (SB) is fulfilled through 2 (two) instruments namely Government Securities (SUN) and State Sharia Securities (SBSN). The State Securities (SBN) marketed in a financial market that has destination for help Indonesia 's development in Thing increase equity , growth and stability economy going to well-being Indonesian society .

The Indonesian government views need for close deficit budget shopping government through sourced loans from domestically. Remember level high flexibility and dependability to donor countries, to be notes alone for Indonesian government for switch from financing abroad to financing domestically. Financing domestically done with publishing bond government (SUN), with publishing bonds, government join establish and promote the bond market in Indonesia.

Condition macro economy is one attention for investors before invest. As known variable macro economy like ethnic group Bank Indonesia interest rate (*BI Rate*) and fluctuating inflation take effect to activity investment in the capital market. *BI Rate* and inflation have closeness impactful relationship for economy a country. When *BI Rate* experience enhancement so public will motivated for keep the funds in form savings nor investment so that inflation will experience decline. Impact vice versa applies, when the *BI Rate* experience drop so public will tend use the money for consuming so that causing money supply more a lot and cause inflation.

With a high level of *BI Rate* and the presence of expectations investors, while payment coupon character fixed, then Thing this will lower price bond because investors will choose instrument investment with level more returns high and compare bond with other instruments or with bond that rate the coupon more high. With down price bond will interesting investors' interest in invest in form of Government Securities (SUN) because the *return* obtained when due will be increase. Whereas existence inflation is signal negative for investors in the capital market. The more tall rate inflation, then interest public in invest the more decreases, so that request against Government Securities (SUN) decreased temporary Fixed offer of Government Securities (SUN).

HYPOTHESES

Bond is securities that provide income in total permanent to the owner, where at the time buy investors already knowing in the form of payment interest earned by periodic and payment return par value (*par value*) at the time maturity called with *yields*. *Yield* bond is factor most important as investor considerations in do purchase bond as instrument the investment. *Yield* bond describe income that will obtained by investors if invest funds in bonds in something period certain and different with flower bonds, *yield* bond tend character no fixed.

one influencing factors payback yield (*yield*) bonds is level flower the size level ethnic group flower used by investors as reference base level expected return, Enhancement ethnic group flower push public for hold more many bonds and reduce cash and consumption because *expected return* from bond increase.

Enhancement ethnic group flower make Mark payback results from bond experience increase too.

H1 : BI Rate take effect to SUN yields

Movement *return* bond caused by level interest inflation and growth economy . announcement inflation to future (*expected inflation*) is most influencing factor movement bond *yield* period long . at the time inflation reach point highest price bond estimated will reach point lowest , of course will Becomes opportunity for investors to invest especially in bonds that have period time long and have expectations payback yield (*yield*) more high . In condition economy where inflation estimated will rise, then investors will ask more compensation big because price bond will down . when things this happens then *yield* obtained by investors will increase

H2 : Inflation take effect to SUN yields .

The size level ethnic group flower and change rate inflation is most influencing factor movement bond *yields* Ethnic group interest and inflation is variable macro the changing economy take effect live to economy Condition the economy experiencing enhancement inflation rate flower will tend experience increase . Inflation rate later will influence level market interest and beyond level flower the will influence price and *yield* bonds.

H 3: BI Rate and Inflation take effect to SUN yields

RESEARCH METHODS

1.1 Election Method Study

In study method used method study quantitative . In study quantitative / positivistic based on a assumption that something symptom that could classified and relationship symptom character causal (because) result), then researcher could do study with focus to a number of variable course .

1.2 Retrieval Technique Sample

Population in study this is all Government Securities (SUN) issued by the Indonesian government in 2011-2017. The Government Securities (SUN) consist of 130 *fixed coupons* , 183 *zero coupon* and 18 *variable coupons* . taking sample conducted with technique *purposive sampling* . With destination for get representative sample in accordance with specified criteria . As for the criteria or consideration taking sample on research this based on things following :

- a. Make SUN with type *Fixed Rate* .
- b. It is SUN *denominated in* rupiah.
- c. Is a SUN with a tenor of more than 15 years .
- d. It is a SUN which includes in series *benchmarks* based on the Director 's Decree General Debt Management .

Based on criteria or consideration taking sample above , then selected sample is as following :

Table 1
Sample Study

No	Series	First Issue Date	Maturity Date	Next Coupon Date	Coupon
1.	FR0054	22-Jul-2010	15-Jul-2031	15-Jul-2011	9,500%
2.	FR0056	23-Sep-2010	15-Sep-2026	15-Mar-2011	8.375%
3.	FR0058	21-Jul-2011	15-Jun-2032	15-Jun-2013	8.250%
4.	FR0059	15-Sep-2011	15-May-2027	15-May-2013	7,000%
5.	FR0064	13-Aug-2012	15-May-2028	15-May-2014	6,125%
6.	FR0065	30-Aug-2012	15-May-2033	15-May-2014	6.625%
7.	FR0068	01-Aug-2013	15-Mar-2034	15-Mar-2015	8.375%
8.	FR0071	12-Sep-2013	15-Mar-2029	15-Mar-2015	9,000%
9.	FR0072	09-Jul-2015	15-May-2036	15-May-2017	8.250%
10.	FR0073	06-Aug-2015	15-May-2031	15-May-2017	8.750%
11.	FR0074	10-Nov-2016	15-Aug-2032	15-Feb-2017	7,500%

Source : www.djppr.kemenkeu.go.id

1.3 Definition and Conceptual Variable

Variable bound (*dependent variable*) used in study this is *yield* of Government Securities (SUN) (Y). Whereas variable free (*independent variable*) is the BI Rate (X1) and inflation (X2).

a. Yield of Government Securities (SUN)

Yield bond is most important factor as investor considerations in do purchase bond as instrument the investment . Investors will count how much big income investment on placement of funds in bonds use tool measuring *yields* . one method for count *yield* bond is with use approach to nominal *yield* .

Tandeilin (2010:257) nominal bond *yield* or more known with designation level coupon (*coupon rate*) is income flower coupon annual payment to the holder bonds . Coupon rate declared as percentage face value .

$$\text{Coupon rate} = \frac{\text{Income flower annual}}{\text{Face value}}$$

b. Inflation

Inflation is rise prices commodity by common caused by not in sync between system programs procurement commodity (production , determination prices , printing money and so on) (Putong , 2013). Inflation rate calculated based on number collected index from a number of type goods for sale buy it in the

market with each level price (goods this of course only the most and is need main / main for society).

c. *BI Rate*

BI Rate is ethnic group flower policies that reflect attitude or *stance* policy monetary policy determined by Bank Indonesia and announced to public (Susanto and Moses, 2013).

1.4 Data Collection Techniques

Data collection techniques used in study this is method documentation . researcher retrieve data in the form of monthly data on Government Securities (*outstanding governments*) from the Directorate 's website General Management Financing and Risk (www.djppr.kemenkeu.go.id) and other data obtained from Bank Indonesia (www.bi.go.id) and the Central Statistics Agency (www.bps.go.id) .

1.5 Data Analysis Techniques

Method analysis used in study this use non parametric statistics in the form of Correlation of Kendall (*Kendall's Tau*) and Kendall's Concordance Test (*Kendall W Test*) with help *software Statistical Package for Social Science (SPSS) Ver 22.*

RESULTS AND DISCUSSION

Kendall's Correlation of Variable *BI Rate* (X1) with *Yield SUN* (Y)

Table 2
Kendall *BI Rate* Correlation Results

Correlations			BI RATE	YIELD SUN
Kendall's tau_b	BI RATE	Correlation Coefficient	1,000	-,007
		Sig. (2-tailed)	.	,818
		N	656	656
	YIELD SUN	Correlation Coefficient	-,007	1,000
		Sig. (2-tailed)	,818	.
		N	656	656

From table 2 shows that correlation test results *BI Rate* variable (X1) to variable *yield of SUN* (Y) correlated negative meaning if *BI Rate* experience enhancement so *yield* will decreased . With coefficient correlation of -0.007 and significant at the level of 0.818. Coefficient value correlation is negative of -0.007, p this show that *BI Rate* relationship is very weak to *SUN yields* . Significant value of 0.818 is more big from Mark *alpha* 0.05, then H_0 is accepted and H_1 rejected . With thereby so hypothesis study that is there is influence positive by Partial between *BI Rates* with *yield of SUN*, no could accepted .

Variable Kendall Correlation inflation (X2) with *Yield SUN* (Y)

Table 3
Kendall Correlation Results Inflation

Correlations			INFLASI	YIELD SUN
Kendall's tau_b	INFLASI	Correlation Coefficient	1,000	-,014
		Sig. (2-tailed)	.	,627
		N	656	656
	YIELD SUN	Correlation Coefficient	-,014	1,000
		Sig. (2-tailed)	,627	.
		N	656	656

From table 3 shows that correlation test results variable inflation (X2) against variable *yield of SUN* (Y) correlated negative meaning if inflation experience enhancement so *yield* will decreased . With coefficient correlation of -0.014 and significant at the level of 0.627. Coefficient value correlation is negative of -0.014, p this show that connection very weak inflation to *SUN yields* . Significant value of 0.627 is more big from Mark *alpha* 0.05, then H_0 is accepted and H_2 rejected . With thereby so hypothesis study that is there is influence positive by damn Among inflation with *yield of SUN*, no could accepted .

Significance Test Coefficient Correlation

- Significance Test Coefficient *BI Rate* Correlation with *Yield SUN*

Significance test correlation used for test significance *BI Rate* relationship with *SUN Yield* . Based on results significance test calculation correlation obtained Mark significant of 0.818 is more big from Mark *alpha* 0.05 which means no there is significant relationship between *BI Rates* with *SUN Yield* .

- Significance Test Coefficient Correlation Inflation with *Yield SUN*

Significance test correlation used for test significance connection inflation with *SUN Yield* . Based on results significance test calculation correlation obtained Mark significant of 0.627 is more big from Mark *alpha* 0.05 which means no there is significant relationship Among inflation with *SUN Yield* .

Kendall 's W Test Analysis

For see correlation third variable independent (*BI Rate* , inflation) independently together to variable dependent (*yield of SUN*), is used Kendall Concordance test kit (*Kendall W Test*). The results of data processing with use SPSS *software* version 22 obtained results as following :

Table 4
Kendall . Concordance Test Results
Kendall's W Test

Ranks	
	Mean Rank
BI RATE	2,15
INFLASI	1,00
YIELD SUN	2,85

Test Statistics	
N	656
Kendall's W ^a	,870
Chi-Square	1141,971
df	2
Asymp. Sig.	,000

a. Kendall's Coefficient of Concordance

Based on table on known that influence by together from third variable independent (BI Rate , inflation) against variable dependent (*yield on SUN*) is indicated by the value of Kendall's W , which is 0.870. Significance level from third variable independent by together to variable dependent could seen from Mark *asympt . Sig* i.e. 0.000.

Significance Test Kendall 's Concordance

Significance test concordance kendall used for get conclusion from there is or whether or not significant relationship between BI Rate and Inflation by together . From the calculation of the concordance test kendall got Kendall's W value of 0.870 with Mark *asympt . Sig* i.e. 0.000. *Asymp* value . *Sig* under Mark *Alpha* 0.05, then reject H_0 and accept H_3 . With thereby hypothesis that is there is the influence of the BI Rate and inflation by simultaneous to *yield of SUN*, get accepted .

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

Based on research that has been done , then could taken conclusion as following :

1. BI Rate by Partial no take effect significant to SUN *yields* .
2. Inflation by Partial no take effect significant to SUN *yields* .
3. BI Rate and inflation by simultaneous take effect to *yield of SUN* with order based on *mean rank (Kendall's W Test)* is *yield on SUN*, BI Rate , inflation .

Suggestion

1. For Government should government more many issue Government Securities so that more varied from side series , *coupon* , *maturity* , value bond nor *yield* so that trigger investors to invest bonds .
2. For investors, we recommend investors who want to invest in bonds will more good consider factors what only can influence income or *yield* bond that .

3. For study next it is recommended to develop and add other variables that can influence SUN yields like *coupon rate* , time maturity , value bond

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