The Moderating Effect of Interest Rates and Inflation on the Effect of Bond Coupons and Bond Maturity on the Price of Fixed Rate (FR) Series RI State Bonds in 2022

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Abstract

This study examines the moderating effect of Interest Rate and Inflation on the effect of Bond Coupon and Bond Maturity on the Price of FR Series Government Bonds in 2022. In addition, this study aims to see if there are differences in the effect of Bond Coupons, and Bond Maturity on Bond Prices in the presence of moderating effect factors of Interest Rates and Inflation in 2022. This study examines the impact of the moderating effects of interest rates and inflation that affect the changes in bond prices that occur by looking at the Bond Coupon and Bond Maturity factors. With the method used, the experimental hypothesis is quantitative, and the data is obtained from www.bps.go.id, www.bi.go.id, and www.idx.co.id. The analysis method used was purposive sampling, and the SPSS version 26 computer program was used. The results of data processing and analysis show that Bond Coupon Bond Coupons have a significant positive impact on Bond Prices. When the size of the Bond Coupon owned will affect the Bond price and the effect of Bond Maturity on Bond Price is negative and insignificant. Until now, there has not been enough evidence to support the first hypothesis that bond maturity will have a positive impact on Bond Prices. Moderating Effect of BI Rate Interest Rate Data. Against bond maturity and bond coupons on bond prices by adding the moderating effect of BI Rate data, it makes the BI Rate data negative and insignificant.

Keywords: *Bond Coupon*, *Bond Maturity*, *FR Bond Price*, *Interest Rate*, *Inflation*.

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A. INTRODUCTION

Every month, Bank Indonesia determines the BI Rate after a meeting of the board of governors, taking into account domestic and foreign economic conditions. BI's attitude to these conditions is formulated through monetary operations as a guideline in determining the BI Rate. BI introduced a new policy to increase the strength of the monetary framework, namely the BI-7 Day Reverse Repo Rate, which came into effect on 19 August 2016, replacing the BI Rate. This includes common practices within central banking as well as international best practices in monetary transactions. The operational framework of monetary policy is maintained to increase policy effectiveness and meet the determined inflation target. The BI 7-Day (Inverse) Repo Rate instrument is the new main interest rate, having a rapid impact on the money market, banks and the real sector. This instrument has also become a new benchmark with a strong link to money market rates, traded on the market, and encourages financial market deepening, especially the use of repo instruments. The relationship between interest rates and bond prices occurs when interest rates

increase, bond prices weaken, and vice versa, bond prices experience appreciation when interest rates fall. Inflation includes conditions when the prices of services and goods generally tend to increase continuously over a certain period of time. This causes the overall purchasing power of money to decrease along with the increase in prices of services and goods. Inflation is a macroeconomic factor that describes a condition where the price of goods continues to increase, which can cause the economy to weaken. Investors really pay attention to the inflation rate when deciding to invest, especially in bond investments, because inflation that exceeds the value of the bonds could result in losses for them. The impact of inflation includes a decrease in investors' purchasing power for financial assets, including bonds, therefore demand for financial instruments may decrease, affecting the weakening of bond prices. A study by Fitriatul Azizah and Hidajat (2016) shows a positive, although not significant, impact of inflation on bond prices. The differences in the results of previous studies regarding the relationship between independent and dependent variables show the need for further research. This study is crucial so that investors can make the right bond investment decisions, especially considering the increasing transactions in the Republic of Indonesia FR series bonds, which contribute to fluctuations in bond prices. The Fixed Rate series of RI State Bonds were chosen because they have greater risk exposure to macroeconomic variables and the characteristics of the bonds. The macroeconomic variable analyzed is inflation, while duration and convexity are special characteristics of the Indonesian Government Fixed Rate Series bonds, which tend to be influenced by market mechanisms in price changes. The yield or interest given to bond holders at certain time intervals is called a coupon. In general, coupon payments are made every 3 or 6 months. Bond coupons include a form of interest that is continuously provided by the bond issuer to the holder. According to Saridan Sudjarni (2016), increasing the coupon rate offered by a bond means investors tend to be more interested in buying the bond because it is considered to be useful and profitable.

Bond price is a numerical value formed from bond buying and selling transactions to determine the difference in profit from the purchase value to the selling value. Bond prices are divided into par price (nominal value), premium price (above par value), and discount price (below par value).

Tandelilin (2010) states that changes in bond prices are influenced by various factors such as bond rating, payment deadline, coupon, bond liquidity, market interest rates, and callability. Meanwhile, Fabozzi (2000) emphasizes bond liquidity, payment deadlines, and coupons as the main factors in changes in bond prices. The various factors that are the focus of this study involve payment deadlines, bond liquidity, and bond coupons. This is because bond coupons and payment deadlines are the main characteristics, while bond liquidity directly influences changes in bond prices.

An important principle in investing in bonds is that price movements are opposite to interest rates and bond yields. As an investment product, bonds have prices that can change due to various factors, including interest rates. Changes in

interest rates have an impact on changes in yield, namely the return desired by investors in one year. Bond prices fall if interest rates increase, and vice versa. When bond prices weaken, bond yields increase, which is known as interest rate risk or is one of the risks faced by bond investors.

B. LITERATURE REVIEW

1. Bond

Bonds are financial documents that include an agreement between the issuing company as the borrower and investors as the funders. Bond issuers must pay interest periodically and also return the principal within the payment deadline, with generally a term of more than 10 years. An example is "U.S. Treasury securities" issued by the American government with a payment term of 10 years or more.

In Indonesia, debt securities with a term of 1 to 10 years issued by the government are called Government Securities (SUN), while debt with a term of less than 1 year is called State Treasury Notes (SPN). Bonds are basically a form of debt that is used as a financial instrument. The bond issuer is the party who borrows (debtor), the bond holder is the party who gives the loan (creditor), and the bond "coupon" is an interest payment that must be made by the debtor to the creditor.

By issuing bonds, issuers can obtain long-term investment financing from external funding sources. In some countries, the terms "bond" and "debt" are used to refer to the payment deadline. Market players often use the word "bond" for large-scale debt securities issuances that are offered widely, while "debt securities" are used for small-scale issuances that are offered to small investors. The use of this term has no clear boundaries.

The term "treasury paper" refers to securities with a maturity of 3 years or less. Bonds have the highest risk, followed by "debt securities" with medium risk, and "treasury securities" with the lowest risk, depending on the duration of the debt securities which is shorter the lower the risk. Bonds and shares are financial instruments called securities, but the difference lies in ownership, where shareholders have a share in the company that issues the shares, while bond holders only act as lenders or creditors for the bond issuer.

Bonds often have a certain period of time to be cashed in, in contrast to shares which can be held indefinitely, except for UK government bonds (gilts) which have no time limit for payment. In the capital market, not only shares can be invested, but people can also own debt securities in the form of bonds. When transacting bonds on the secondary market, the price calculation is different from shares, using percentages instead of rupiah denominations.

2. Interest Rate

As outlined in Berk and DeMarzo's (2019) Corporate Finance textbook, interest rates represent the returns or expenses incurred by individuals or entities engaging in borrowing or lending activities over a specific duration. They reflect the

risk level, inflation rate, and time preferences of the participants in financial dealings.

The bank interest rate can be defined as the reward given by the bank to customers who sell or buy its products, including the price that the bank must pay to customers who deposit money, and vice versa, the price that must be paid by customers who receive loans. Bank interest can be divided into two types, namely deposit interest as a reward for customers who save money, and loan interest as a reward determined by the bank for borrowers for the loans they receive.

3. Inflation

Inflation is a general increase in the price level. High inflation rates are often associated with an overheated economy, where demand exceeds production capacity, causing a general rise in prices. Inflation calculations are carried out by the Central Statistics Agency (BPS) in Indonesia through survey data on prices of services and goods that describe public consumption spending. The Consumer Price Index (CPI) is used as an indicator to measure inflation, with division into 11 expenditure groups in accordance with the 2018 Classification of Individual Consumption by Purpose (COICOP).

4. Bond Maturity

The payment deadline date is the time when the bond holder will receive repayment of the principal or nominal value of the bonds they own. The payment deadline period can range from 365 days to more than 5 years. Hartono (2014) explains that "the maturity value or what is often referred to as the payment deadline is the amount promised to be paid when the bond reaches the payment deadline. The bond payment deadline not only describes the payment time, but also shows the maturity "The bonds are usually stated in years. Generally, bonds with longer payment terms tend to have a greater level of risk, and vice versa."

5. The Effect of Bond Maturity on Bond Prices

When a bond approaches the payment deadline, its value will decrease or increase if it approaches the Par price (Initial Price) depending on the conditions at that time which influence the payment deadline factor on the bond price so that the impact that occurs on the bond price is a positive impact due to the time period. This is one of the factors driving bond prices because the longer the bond term, the bond price will experience an increase in price and vice versa. Bonds that have a long tenor provide wider opportunities for the issuing company to pay debts, including larger coupon payments and a longer term compared to short-term bonds. The competitive advantage in the coupon size at the level of yield in the market makes investors consider bonds as an attractive investment option. In accordance with previous research by Yeti Indah Lestari (2019), if the maturity variable influences the bond price variable, namely the maturity variable, it has a positive impact on the bond price variable. According to Eni Wati (2021), if the maturity variable has a

positive impact on the bond price variable. Bond issuers that have a high reputation also increase investor confidence, encouraging them to invest for longer periods and gain greater profits. As a result, demand for bonds with longer repayment terms increases. An increase in demand for a bond, when supply remains constant, can cause the price of the bond to rise. Bonds with longer payment terms, along with various other factors, are considered to be able to increase bond prices. In conclusion, Maturity has a positive impact on bond prices. Periodic returns from bond coupons are attractive to investors, and previous research by I Wayan Sumarna & Ida Bagus Badjra (2016) and Fardan Barrunanto & Toto Rahardjo (2020) shows that bond coupons have a positive impact on bond prices. A larger coupon is considered attractive because it can increase returns for investors, therefore it can be concluded that the bond coupon rate is positively related to the bond price.

6. Coupon

Coupons include interest profits received periodically by bond holders, usually paid every 3 or 6 months, and measured in annual percentages. The types of bonds are differentiated according to the interest rate or coupon payment system offered:

a. Fixed interest bonds are a type of bond that offers a coupon with a fixed percentage that is determined before the initial offering on the market. For example, bond
b. Floating interest bonds include bonds whose coupon rate is not set constantly, but follows a predetermined reference. As an illustration, Y bonds with a tenor of 5 years and a coupon of 3% above SBI, allow investors to receive coupons according to fluctuations in SBI interest rates over 5 years.
c. Coupon bonds are a type of bond where the amount of the coupon given to investors is in accordance with the provisions set by the bond issuer.
d. Zero coupon refers to bonds that do not periodically provide coupons. Generally, these bonds are issued at a discount, with investors paying less than par value. The profit for investors lies in the difference between the discount purchase price and the par value payment received at the payment deadline.

7. Interest rates moderate the influence of bond maturity on bond prices.

As a consideration if the condition of interest rates at the bond payment deadline is that if at that time the BI Rate rises then the bond period at that time is included as one of the considerations in choosing an investment product because if the product payment period/deadline is longer. then the uncertainty of the product becomes increasingly unclear so that the bond price at that time will experience a decline.

Where from the results of previous research for the bond payment deadline variable that influences bond prices, namely Shafira Nimas Mahardian Asyaf (2019), the results of her research, namely Maturity, have a positive and significant impact

on the prices of Ni Putu Rika Puspa Astari & Ni Putu Rika Puspa Astari (2018) The results of his research are that the duration variable shows a significant positive impact on corporate bond prices.

Sophan Sophian & Elza Delisna PutriI (2022) the results of their research are that payment deadlines have a positive impact. The results of previous research for the interest rate variable on bond prices, namely Fitriatul Azizah & Imam Hidajat (2016), are that the interest rate (SBI) has an insignificant impact on government bond prices. Ni Putu Giri Kusuma Dewi, Ida Bagus Anom Purbawangsa, & Nyoman Abundanti (2016) stated that interest rates have a significant negative influence on bond market prices. So, the results can be concluded from the interest rate factor moderating the influence of the bond payment deadline variable on bond prices by displaying the data. from previous research is that it has a significant influence on bond prices.

8. Interest rates moderate the influence of bond coupons on bond prices.

Before investing in bonds, investors will consider the BI Rate at that time, looking for bonds with coupons that exceed the BI Rate interest rate at that time. Because when buying a bond product you have to consider price fluctuations in the bond price at that time because it will affect it. Because bond market prices tend to be in the opposite direction to general interest rates in the market, according to Haryanto (2013):

a. If the market interest rate (SBI) falls below the bond coupon rate, investors will switch to bonds, resulting in an increase in bond prices as well as potential capital gains.
b. When the market interest rate (SBI) rises above the bond coupon rate, investors choose investments other than bonds, causing a decrease in bond prices and no capital gain for investors.
c. If the market interest rate (SBI) is the same as the bond coupon rate, the bond price will be equal to its nominal value.

The Effect of Bond Coupons on Bond Prices According to the results of a previous study by Yeti Indah Lestari (2019), the effect of Coupons on Bond Prices is that Coupons influence Bond Prices. Yan Ardi (2018), namely that the Bond Coupon Variable Influences Changes in Corporate Bond Prices. Shafira Nimas Mahardian Asyaf (2019) namely Bond Coupons have a positive and significant impact on Bond Prices. The results of previous research for the interest rate variable on bond prices, namely Fitriatul Azizah & Imam Hidajat (2016), are that the interest rate (SBI) has an insignificant impact on government bond prices. Ni Putu Giri Kusuma Dewi, Ida Bagus Anom Purbawangsa, & Nyoman Abundanti (2016) stated that interest rates have a significant negative influence on bond market prices. So the conclusion can be drawn from the results of the interest rate factor moderating the influence of the bond coupon variable on bond prices by displaying data from research. Previously, it had a significant influence on bond prices.

9. Inflation moderates the effect of bond maturity on bond prices

Inflation is a factor that does not directly influence the Bond Maturity because inflation will influence the Government's Monetary policy in providing the BI Rate Interest Rate Policy at that time if conditions occur when inflation rises or inflation decreases. Because inflation will affect the economic conditions in a country. So high inflation makes investors choose. Where the results of previous research for Yessiana (2019) are that Maturity Date has a significant influence on Government Bond Prices. Fitriatul Azizah & Imam Hidajat (2016) stated that Maturity has a significant impact on Government Bond Prices. So the Inflation Factor moderates the influence of the Bond Coupon variable on Bond Prices, that is, it has a positive impact on Bond Prices. Meanwhile, the influence of the inflation variable on bond prices, namely Yeti Indah Lestari (2019), is the influence of inflation on bond prices, namely inflation has no influence on bond prices. Ni Putu Rika Puspa Astari & Ni Putu Rika Puspa Astari (2018) is that inflation shows a positive and insignificant impact on corporate bond prices. Linda, Kardinal, and Faradila Meirisa (2018) state that the inflation variable has a significant negative influence. So it can be concluded that the results of the inflation factor moderating the influence of the variable bond payment deadline on bond prices by displaying data from previous research are that it has an insignificant influence on bond prices.

10. Inflation moderates the effect of bond coupons on bond prices

Inflation is an economic cycle that occurs where this factor occurs due to supply and demand for a product. So if there is a shortage of the product where demand for the product is high then it can be called inflation which will increase and vice versa. The influence of inflation on bond coupons appears to have a positive impact where investors will choose bond coupons that are greater than inflation at that time.

The results of previous studies regarding the influence of the Bond Coupon variable on Bond Prices, according to Yan Ardi (2018), stated that the Bond Coupon Variable Influences Changes in Corporate Bond Prices. Fardan Barrunanto, & Toto Rahardjo, (2020) is that Coupons have a significant positive impact on Bond Prices,

The results of the study of Inflation on Bond Prices, according to Yeti Indah Lestari (2019), are the Effect of Inflation on Bond Prices, namely that inflation has no influence on Bond Prices. Ni Putu Rika Puspa Astari & Ni Putu Rika Puspa Astari (2018) is that inflation shows a positive and insignificant impact on corporate bond prices. Linda, Kardinal, and Faradila Meirisa (2018) state that the inflation variable has a significant negative influence. So it can be concluded that the results of the inflation factor moderate the influence of the Bond Maturity variable on Bond Prices by showing data from previous research, namely that it has a significant influence on Bond Prices.

C. RESULTS AND DISCUSSION

1. Multiple Linear Equations

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	86.782	3.717		23.350	.000		
	Bond Maturity	-.009	.004	-.401	-2.196	.032	.410	2.439
	Bond Coupon	2.337	.611	.699	3.825	.000	.410	2.439

a. Dependent Variable: bond price

The constant value has a magnitude of around 86,782. This illustrates that when the Bond Maturity and Bond Coupon have a value of zero, the Bond Price will have a fixed value of around 86,782. The regression coefficient for the Bond Maturity variable is around -0.009, which means that the Bond Price decreases by around 0.009 if the Bond Price decreases for short maturity Bond products. On the other hand, the bond price will increase by around 86,782 if the bond maturity is 1 year longer. The regression coefficient for the Bond Coupon variable is around 2.337. This shows that Haega Bonds will experience an increase of around 86,782 if the Bond Coupon is two percent greater and all other variables remain constant. Conversely, the Bond Price will increase by around 86,782 if the Bond Coupon increases by two percent.

2. Model Fit Test (F Test)

The F test, which is also known as the Model Fit Test, is a statistical technique in regression analysis that is used with the aim of evaluating whether the observed data is in accordance with the regression model used. The significance value (sig) of the F test must be <0.05 in the regression model that has been built. The significance value (sig) indicates that at least one independent variable has a significant impact on the dependent variable.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	77.378	2	38.689	7.988	.001[b]
	Residual	276.063	57	4.843		
	Total	353.441	59			

a. Dependent Variable: bond price

b. Predictors: (Constant), bond coupon, bond payment deadline

From the results of the F test, it was found that the significance level reached 0.001, which indicates this value is less than the specified alpha limit, namely 0.05. Based on these results, at least one predictor variable in the regression model has a notable impact on bond prices.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	86.782	3.717		23.350	.000		
	Bond maturity	-.009	.004	-.401	-2.196	.032	.410	2.439
	Bond coupon	2.337	.611	.699	3.825	.000	.410	2.439

a. Dependent Variable: bond price

The constant value is determined to be 86,782, suggesting that with fixed payment deadlines and bond coupons, the bond price will settle at 86,782. Additionally, external factors like BI interest rate data and inflation also contribute to fluctuations in bond prices. The variable for Maturity exhibits a negative value of -.009. The significance level (p-value) for the maturity variable is 0.032, which falls below the alpha value (0.011 < 0.05). This indicates that Maturity negatively affects bond prices, as evidenced by its coefficient of -.009. Bond Coupon With a coefficient of 2.337, the Bond Coupon variable has a significance level (p-value) of 0.000, much lower than the alpha value (0.000 < 0.05). This shows that the Bond Coupon does not have a significant impact on bond prices. Analysis Results After There is a Moderating Effect of Interest Rates and Inflation on Bond Maturities and Bond Coupons on Bond Prices.

3. Multiple Linear Equations

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	97.406	0.000		516490175.551	0.000		
	Bond Maturity	-1.1657	0.000	0.000	0.000	1.000	0.330	3.032
	Bond Coupon	1.306	0.000	0.391	46179103.516	0.000	0.359	2.789
	Interest Rate	1.452	0.000	0.000	0.000	1.000	0.655	1.526
	Inflation	-1.174	0.000	-0.646	-103093577.989	0.000	0.655	1.527
	JTxSK	1.000	0.000	0.656	116017980.521	0.000	0.805	1.243
	JTxIN	1.237	0.156	0.933	7.928	0.000	0.168	5.956
	KPxSK	1.035	0.092	0.880	11.245	0.000	0.380	2.634
	KPxIN	-1.355	0.203	-0.889	-6.686	0.000	0.132	7.596

a. Dependent Variable: Bond Price

With a constant value of 97.406, it can be inferred that fluctuations in interest rates and inflation data, while holding the effects of maturity and bond coupons constant, result in a bond price of 97.406. Bond Maturity, indicated by a positive coefficient of approximately 0.0508 and a p-value around 1, suggests that while it positively affects Bond Prices, the impact lacks statistical significance. This implies that upon maturity, the bond price will revert to its par value, namely 100

Bond Coupon, featuring a positive coefficient of approximately 1,306 and a p-value of about 0.00, suggests that Bond Coupons have a limited or negligible effect on Bond Prices, albeit not statistically significant. Regardless of the size of Bond

Coupon amounts, they may motivate investors to engage in the Bond market, potentially influencing Bond prices, yet this effect has not been empirically proven to be significant. The interest rate, represented by a positive coefficient of approximately 1,745 and a p-value near 1, indicates that interest rates strongly influence changes in bond prices, with a high level of statistical significance. A decline in interest rates may prompt investors to enter the bond market, potentially driving up bond prices significantly.

Inflation, with a negative coefficient of approximately -1.174 and a p-value close to 0.00, indicates that inflation negatively affects changes in bond prices, albeit insignificantly. While high inflation may lead to higher prices for goods and reduced demand, this influence has not been conclusively demonstrated as significant concerning bond prices. The JTxSK variable, serving as a moderating factor for the interest rate on bond maturity, signifies a shift in interest rate data (1), with a p-value close to 0.00. This indicates that alterations in interest rates negatively affect the influence of bond payment deadlines on bond prices, though the effect lacks statistical significance.

The JTxIN variable, representing the influence of inflation on Bond Maturity, demonstrates a positive coefficient of approximately 1.035, with a p-value close to 0.00. This indicates that inflation data does not significantly affect bond payment deadlines and their corresponding bond prices, though the impact is not statistically significant.

The KPxSK variable, depicting the influence of Interest Rate on Bond Coupons, showcases a positive coefficient of about 1.237, with a p-value approximately at 0.000. This suggests that interest rate data has a detrimental effect on bond coupons concerning bond prices, albeit not statistically significant.

The KPxIN variable, representing the influence of inflation on bond coupons following government policy implementation, exhibits a coefficient of approximately -1.335, with a p-value close to 0.00. This indicates that inflation data, which moderates the impact of bond coupons on bond prices, has yet to demonstrate a significant influence on bond prices.

4. Model Fit Test (F Test)

In regression analysis, the F test is used to determine whether the independent variable has a significant impact on the dependent variable. If the significance value (sig) of the F Test is < 0.05, it can be concluded that at least one of the independent variables has a significant impact on the dependent variable.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	231.179	4	57.795	25.999	.000[b]
	Residual	122.263	55	2.223		
	Total	353.441	59			

a. Dependent Variable: harga obligasi

b. Predictors: (Constant), inflasi, kupon obligasi, suku bunga, jatuh tempo obligasi

Based on the results of the F Test with a significance value of 0.000, it can be concluded that at least one independent variable in the regression model significantly influences bond prices. This can be seen from the significance value which is smaller than the alpha significance level of 0.05.

6. t test

In regression analysis, the T test is applied to assess the impact of some of the independent variables on the dependent variable. The significance level for this test was set at $\alpha = 5\%$.

t Test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	97.406	0.000		516490175.551	0.000		
	Bond maturity	-1.1657	0.000	0.000	0.000	1.000	0.330	3.032
	Bond Coupon	1.306	0.000	0.391	46179103.516	0.000	0.359	2.789
	Interest Rate	1.452	0.000	0.000	0.000	1.000	0.655	1.526
	Inflation	-1.174	0.000	-0.646	-103093577.989	0.000	0.655	1.527
	JTxSK	1.000	0.000	0.656	116017980.521	0.000	0.805	1.243
	JTxIN	1.237	0.156	0.933	7.928	0.000	0.168	5.956
	KPxSK	1.035	0.092	0.880	11.245	0.000	0.380	2.634
	KPxIN	-1.355	0.203	-0.889	-6.686	0.000	0.132	7.596

a. Dependent Variable: bond price

The constant value is 97,406, therefore it can be concluded that when there are changes in interest rate and inflation data, with the effect of maturity and bond coupons having a constant value, the bond price is 97,406. Bond Maturity, indicated by a favorable coefficient of approximately 0.0508 and a significant p-value of about 1, suggests that while it does positively influence Bond Prices, this influence holds considerable statistical weight. In essence, as the bond reaches maturity, its price is expected to revert to its par value, typically 100.

Bond Coupon, featuring a positive coefficient of approximately 1,306 and a p-value of approximately 0.00, indicates that Bond Coupons exhibit a negligible or inconsequential effect on Bond Prices, although this effect lacks statistical significance as well. Regardless of the magnitude of Bond Coupon amounts, they

may attract investors to participate in the Bond market, potentially influencing Bond prices, yet this effect has yet to be substantiated as significant.

The interest rate, indicated by a positive coefficient of approximately 1,745 and a p-value of around 1, signifies that interest rates exert a notable influence on changes in bond prices, with this influence being statistically significant. A decrease in interest rates may incentivize investors to engage in the bond market, potentially leading to an increase in bond prices, and this impact is indeed significant.

Inflation, with a negative coefficient of approximately -1.174 and a p-value of about 0.00, indicates that inflation exerts a negative and inconsequential effect on fluctuations in bond prices. While high inflation can lead to rising prices of goods and reduced demand, this effect has not been demonstrated to be significant in relation to bond prices.

The JTxSK variable, representing the interest rate on bond maturity and acting as a moderating factor, demonstrates a shift in interest rate data (1), with a p-value of approximately 0.00. This suggests that alterations in interest rates negatively influence the relationship between bond maturity and bond prices, though this influence lacks statistical significance.

The JTxIN variable, representing the effect of inflation on bond maturity, displays a positive coefficient of approximately 1.035, with a p-value of about 0.00. This indicates that inflation data does not significantly affect the deadlines for bond payments and their corresponding prices, though the impact is not statistically significant.

The KPxSK variable, representing the influence of interest rates on bond coupons, exhibits a positive coefficient of approximately 1.237, with a p-value close to 0.000. This suggests that interest rate data negatively affects bond coupons in terms of bond prices, although the impact is not statistically significant

The KPxIN variable, representing the influence of inflation on bond coupons following government policy implementation, exhibits a coefficient of approximately -1.335, with a p-value close to 0.00. This indicates that inflation data, which moderates the impact of bond coupons on bond prices, has yet to demonstrate a significant influence on bond prices.

7. Before Interest Rates and Inflation.

This study evaluates the impact of bond maturity and bond coupon on bond prices. It was found that these two variables have an impact on bond prices. The F test indicates that at least one of the independent variables has an influence on bond prices, with a significance level of 0.000. Although Bond Maturity and Coupon have a significant impact on changes in Bond Prices, there are also other factors that can influence Bond prices, for example BI Rate and Inflation Interest Rate Data.

8. The Effect of Bond Maturity on Bond Prices

The results of the study show that Bond Maturity has a negative influence on Bond Prices of around -0.009, which means that if Bond Prices experience a decline,

the Maturity Coefficient is around 0.009 and the significance level of 0.032 shows that the significance value is lower than the alpha value (0.011 < 0.05). Bond prices fall for short maturity bond products. On the other hand, bond prices will experience a decrease of around -.009 if the bond maturity is 1 year longer.

9. The Effect of Bond Coupons on Bond Prices

The results of this study produce a regression coefficient for the Bond Coupon variable of around 2.337. This shows that bond prices will increase by around 86,782 if the bond coupon is two percent greater and all other variables remain constant. Conversely, the Bond Price will increase by around 86,782 if the Bond Coupon increases by two percent.

The findings of this study support the theory which indicates that high coupons on bonds can increase the value of the bonds. Therefore, investors in the bond market should pay attention to the size of the coupon, because bond coupons have a significant influence on bond prices.

If the coupon value is high, bonds become more attractive to investors because they can provide greater returns. Thus, the results of this study show that the high value of bond coupons contributes positively and significantly to changes in bond prices.

10. After the Moderation Effect Variables of Interest Rates and Inflation influence Bond Maturities and Bond Coupons on Bond Prices.

The results of the study show that if there are changes in interest rate and inflation data, these variables have a significant impact on payment deadlines and bond coupons on bond prices. The F test table shows a significance value of 0.000, where the value is lower than the alpha significance level (0.0000 < 0.05). Bond prices can be influenced by a number of different factors. Apart from those mentioned previously, changes in bond prices can also be influenced by many other variables.

11. The effect of interest rate moderation affects maturity on bond prices

The results of the study show that the payment deadline has a negative impact so that the data does not significantly influence bond prices, with a coefficient value of -1.1657 and a significance level of 1. However, when the moderating effect is added, namely the BI Rate interest rate variable, the JTxSK coefficient table shows that it falls Bond Temporary has a positive impact on Bond Prices, with a coefficient value of 1 with a significance level of 0.000.

When the Moderating Effect of the Interest Rate Variable is added to the Bond Maturity variable, which previously had a negative impact on Bond Prices, changes to have a positive impact on Bond Prices. If there is a change in interest rates, investors will see that investing in bonds will look attractive by paying attention to the condition of the BI Rate interest rate at that time by comparing an FR bond product that has criteria, one of which investors pay attention to is the bond

payment deadline so that at at that time it will affect the conditions of demand for FR bonds which will result in changes in bond prices.

Likewise, on the other hand, investors will seek ownership of the bonds they own if they see that the BI Rate interest rate is more attractive compared to bond products which have a longer bond payment deadline so that there will be disbursement or sales transactions for the FR bond products they own so that this event can influence changes in bond prices. that happened.

12. The effect of interest rate moderation affects bond coupons on bond prices

The results of the study show that Bond Coupons have a positive impact so they significantly influence bond prices, with a coefficient value of 1,306 and a significance level of 0,000. However, when the moderating effect is added, namely the BI Rate interest rate variable, the KPxSK coefficient table shows that Bond Coupons have a positive impact on Bond Prices, with a coefficient value of 1.035 with a significance level of 0.000.

When the Moderating Effect of the Interest Rate Variable is added to the Bond Coupon variable, which previously had a Positive impact on Bond Prices, that is, it gave the same result, that is, it gave the same positive impact on bond prices with a coefficient value of 1.035 with a significance level of 0.000. If there is a change in interest rates, investors will see that investing in bonds will look attractive by paying attention to the condition of the BI Rate interest rate at that time by comparing an FR bond product that has the criteria, one of which investors pay attention to is the Bond Coupon on a Bond Product. FR attached to the FR product.

So at that time it will affect the conditions of demand for FR bonds, resulting in changes in bond prices. Likewise, on the other hand, investors will seek ownership of the bonds they own if they see that the BI rate interest rate is more attractive compared to bond products that have bond coupons that are smaller than the BI rate interest rate. At that time there will be disbursement or sales transactions for the FR bond products they own, so that in that event can influence changes in bond prices that occur.

13. The Moderating Effect of Inflation affects the Maturity of Bond Prices

The results of the study show that the payment deadline has a negative impact so that the data does not significantly influence bond prices, with a coefficient value of -1.1657 and a significance level of 1. However, when the moderating effect is added, namely the inflation variable, the JTxIN coefficient table shows that the bond payment deadline has a positive impact on bond prices, with a coefficient value of 1.237 with a significance level of 0.000.

When the Moderating Effect of the Inflation Variable is added to the Bond Maturity variable, which previously had a Positive impact on Bond Prices, it gave different results, namely giving a Positive impact on bond prices with a coefficient value of 1.237 with a significance level of 0.000. If there is a change in inflation, investors will see that investing in bonds will look attractive by paying attention to

the demand and supply conditions for FR bond products being offered at that time because if you look at the bond maturity conditions, this factor is one that has an influence. investors to choose investment instruments at that time

Because if the level of inflation increases, the demand for FR products related to bond maturities will decrease or there will be sales transactions (cashouts) for products that have long bond maturities, while on the other hand, if the bonds have short maturities, investors will choose to buy more. Wait until maturity or carry out disbursement of the bond product you own so that this causes changes in the price of the bond.

14. The Moderating Effect of Inflation affects Bond Coupons on Bond Prices

The results of the study of Bond Coupons on Bond prices show the regression coefficient for the Bond Coupon variable with a coefficient value of 2.337 and a significance level of 0.000. However, when the moderating effect is added, namely the Inflation variable, the KPxIN coefficient table shows that Bond Coupons have a negative impact on Bond Prices, with a coefficient value of -1.335 with a significance level of 0.000.

When the Moderating Effect of the Inflation Variable is added to the Bond Coupon variable, which previously had a positive impact on Bond Prices, it gave different results, namely having a negative impact on bond prices with a coefficient value of -1.335 with a significance level of 0.000. If there is a change in inflation, investors will see that investing in bonds will look attractive by paying attention to the conditions of demand and supply of the FR bond products being offered at that time because investors will pay attention to the bond coupons held by the FR products being offered which are incorrect. one that gives investors influence to choose the instrument they will choose

However, with the impact of the results of the study on the moderating effect of inflation on bond coupons on bond prices, it has a negative impact on investors, when changes in inflation data occur, it does not significantly affect bond prices because if there is a factor, namely the coupons from the bonds they own, still look attractive, so investors will be more choose to keep or increase ownership of the FR Bond product.

Prior to the moderation effect added from this study, bond price movements were influenced by a number of factors, including payment deadlines and bond coupons. From the results of the study, it can be concluded that these two components have a big impact on changes in bond prices. Apart from that, there are other variables that influence changes in bond prices owned and in this study other factors are added, namely the moderating effect of the BI Rate and Inflation.

Bond maturity has an insignificant negative impact on bond prices. So the factor of the Bond Maturity variable does not have a significant impact in influencing the changes in Bond Prices that occur at that time. The size of the Bond Coupon owned by the FR product has a positive and significant impact on the Bond Price. Investors in choosing an investment instrument will pay attention to the factor of the

Coupon held by the FR product which influences the Bond price so that a Buy and Sell transaction occurs on the Bond product which causes the Bond Price to follow changes in accordance with Supply and Demand from Investors.

The influence of the moderating effect of interest rates and inflation on bond payment deadlines and bond coupons on bond prices. By adding the moderating effect of the BI Rate Interest Rate data, it will have a significant positive impact on changes in Bond prices in the FR Series Products owned. Where the effect of this moderation will influence the condition of the FR series products that investors will choose to invest in. By adding the moderating effect of Inflation Data, there is a positive and significant impact on the bond payment deadline variable chosen by investors to determine the chosen FR series investment instrument, thus having an impact on price changes.

In the Bond Coupon variable, the results of the research have a negative and significant impact on changes in bonds in the FR series that investors will choose to invest in.

D. CONCLUSION

The findings of this study can be summarized as follows: Firstly, the effect of bond maturity on bond prices is negative and not significant. Until now, there is not enough evidence to support the first hypothesis that the bond payment deadline will have a positive impact on bond prices. Secondly, Bond Coupons have a significant positive impact on Bond Prices. The size of the Bond Coupon you own will have an influence on the Bond price, because the bigger the bond coupon in the Bond series, the more expensive the Bond Price (premium) will be due to the large number of Bond Investor Coupon Farmers who enjoy bond coupon income every month. Thirdly, Moderation Effects of BI Rate Interest Rate Data. Regarding bond maturities and bond coupons on bond prices. By adding the moderating effect of the BI Rate interest rate data, it will have a significant positive impact on changes in bond prices in the FR Series products owned. Where the effect of this moderation will influence the condition of the FR series products that investors will choose to invest in. Finally, Moderating Effect of Bond Maturity Inflation Data and bond coupons on bond prices. By adding the moderating effect of Inflation Data, there is a positive and significant impact on the Bond Maturity Variable chosen by investors to determine the chosen FR series investment instrument, thus having an impact on price changes. In the Bond Coupon variable, the results of the research have a negative and significant impact on changes in bonds in the FR series that investors will choose to invest in.

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