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Economic Trend Changes for Low Interest Rate and High Interest Rate in South Korea

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Abstract:

Interest rates are the most crucial factor in the global financial and capital markets, and they greatly impact the entire economy, including the product and service markets. Various economic indicators are affected by changes in the interest rate, and the direction of capital flow changes according to the low or the high interest rate. The interest rate has been continuously increased or frozen to stabilize inflation and recover the liquidity spread caused by the COVID-19 pandemic. Accordingly, this study aims to analyse the impact of interest rate changes on the economy. Among the economic indicators, we focused on the base interest rate, the home sale price, the household debt, and the bond transaction performance.

This study used the analysis of covariance (ANCOVA). The research utilized this tool to see the effect of the treatment level on the value of the dependent variable, where the exogenous variable must be controlled by the experimental design. We analysed the economic trend for the low interest rate and the high interest rate for South Korea's low interest rate low interest rate period (2013–2021) and the high interest rate period (2003-2012, 2022).

Keywords: economic trend; interest rate; stock; bond; real estate; South Korea.

JEL Classification: E43; E44; P34.

Introduction

Most countries promote monetary policies that control interest rates and the amount of money while considering their economic activities. Hence, as a representative economic policy, the base rate adjustment is being implemented. The policy maker's perception about the equilibrium real interest rate is important (Arestis & Chortareas, 2006). The fiscal and monetary policy rules may not be as efficacious as their supporters claim (Tager & Lear, 2001). An attempt to stabilize the real policy rate at low level, is the best option for monetary policy (Smithin, 2007). Recently, as a global economic issue, cutting interest rates has gained significant interest. Advanced countries are already aiming for inflation rates at 2% while emerging countries advocate economic policies of 3%–4%. It is the Taylor Rule that each country is using as an indicator of monetary policy. When the central bank determines interest rates, it adjusts them according to economic growth and inflation, and most countries around the world, including the United States, are currently using the Taylor Rule as the basic model for monetary policy. Taylor argued that the movement of the US federal benchmark interest rate can be explained by giving weight to inflation, the difference between the actual economic growth rate and the target inflation rate.

The interest rate hike has the effect of stabilizing the economy by reducing the amount of money on the market as market participants tend to put capital in financial institutions rather than investment, and the interest rate cut is expected to promote economic growth by increasing the amount of money on the market as market participants are released from financial institutions to the market. In the case of South Korea, the Bank of Korea sets the base rate in consideration of the domestic economic situation and the price index, so the schedule for changing the base rate is not constant. When the base rate changes, economic activities such as stocks, bonds, and real estate are actively carried out throughout the financial market. In this study, we focused on the base rate, the home sale price, the household debt, and the bond transaction performance among economic indicators. We analysed economic trend changes for the low interest rate and the high interest rate, focusing on the base rate, the home sale price, the household debt, and the bond transaction performance for the low interest rate and the high interest rate period in South Korea.

In this study, we analysed the effect of interest rates on the economy. The effect of interest rate changes on major economic indicators was analysed. This study attempted to present implications for effective economic policy through analysing the effect of interest rates on the South Korean economy. This paper consists of the introduction, the literature review, the research methodological framework and analysis design, research findings and theoretical implications, the research discussion for economic trend, and conclusion and future perspectives.

1. Literature Review

The risk premium, the state of the macroeconomic environment, the degree of rotation of the interest curve and the remaining lifetime of the property are found to be the prime determinants of interest rate sensitivity (Chaney & Hoesli, 2010). Any economic activity is carried on in risks conditions, these risks being more and less serious, more and less well- known, easiest and hardest to avoid. A positive demand for T-bills and for LTGB exists in a portfolio framework, even when these two assets are characterized by a negative expected rate of return and other risky assets are yielding positive expected returns (Levy et al., 2003).

Studying the level of economic growth remains a topic of discussion among economists and policymakers (Audi et al., 2022). Selecting the interest rate for evaluating potential projects is a key part of the capital budgeting problem (Eschenbach & Cohen, 2006). Global official/policy interest rates respond significantly to increases in global output, inflation and oil prices (Ratti & Vespignani). The contributions to inflation of monetary and fiscal policy shocks are substantial but vary a lot over time (Staehr & Tkacevs, 2025). It is noted a number of recent studies have employed a procedure that underestimates the extent of interest rate pass-through (Cook, 2008). It is not easy to numerically simulate the path to a steady state because there is no closed form solution in dynamic economic growth models in which households behave generating rational expectations (Harashima, 2022). Depending on the interest rate levels, interest rate volatility and the optionality to switch between durable and expendable assets at each renewal time, managers may prefer to invest in long-lived but more expensive assets instead of short-lived but less costly assets and vice versa (Dias & Shackleton, 2009).

Transmission channels from monetary shocks might be identified by studying the features of the production network (Simionescu et al., 2024). With interest rate swaps being the most widely used of all financial derivative contracts, financial analysts and engineers should be keenly interested in any regulations that could influence how these tools are used (Kawaller, 2007). During tight monetary policy, the profitability of firms from median quantiles of profitability and above is negatively impacted (Panda et al., 2022). Restrictive monetary policy can not only fail to achieve the conventional macroeconomic goal of controlling inflation but also be seen as responsible for the increasing income inequality that has occurred in recent decades (Vianna, 2024).

The success of the interest rate channel depends upon the size and speed with which retail interest rates respond to changes in policy or money market interest rates (Sengupta, 2014). For the pricing of interest rate derivatives various stochastic interest rate models are used (Rainer, 2009). The government consumption makes worse the so-called ‘equity premium-interest rate puzzle’ (Yoshino & Santos, 2009). Expansive monetary policy increases banks' loans and portfolio risk (Lima et al., 2024).

Empirical studies have demonstrated that behaviour of interest rate processes can be better explained if standard diffusion processes are augmented with jumps in the interest rate process (Sorwar, 2011). The contested alliance of state and finance embodied in public debt forms a nexus that has shaped the emergence of capitalism, and has also strengthened and transformed as capitalism developed (Vasudevan, 2025). The reversal of the current account deficit and the alleviation of political uncertainties in 2003 affect the impact of monetary policy on market interest rates (Buchholz et al., 2012). Most growth models assume that some of the model parameters that are determined in non-economic systems are exogenous and constant (Stijepic, 2018).

Open market operations (OMOs) therefore impact on mean returns and return volatility of New Zealand financial markets (Lu & In, 2006). Stronger competition implies significantly lower spreads between bank and market interest rates for most loan market products, in line with expectations (Leuvensteijn et al., 2013). The origin of most mainstream theories about interest rates goes back to Irving Fisher (Abel & Lehmann, 2019). An important determinant of the duration of retail interest rates are the dynamics of the wholesale (market and monetary policy) interest rates (Craig & Dinger, 2014). Financial system is stable when it is able to allocate economic resources efficiently in order to manage financial risk through proper measurements and self-correction, when he was under the influence of external shocks (Makysh et al., 2017). Practical monetary policy concerns and recent theoretical developments have revived interest in the concept of a "natural" equilibrium real interest rate (Arestis & Chortareas, 2007). The specification of the interest rate equation encompasses various theories on interest rate formation (Butter & Jansen, 2004).

2. Research Methodological Framework and Analysis Design

This study used the analysis of covariance (ANCOVA). An analysis of variance (ANOVA) examines whether there is a difference in the values of the dependent variables between groups with different treatment levels. The research utilized this tool to see the effect of the treatment level on the value of the dependent variable, where the exogenous variable must be controlled by the experimental design. Exogenous variables refer to variables that can affect the dependent variable but are not set as treatment variables in the experimental design. If it is difficult to control directly, the analysis of covariance (ANCOVA) is performed to remove the effect by treating it with covariance. Particularly, the higher the correlation between the exogenous variable and the dependent variable, the treatment effect can be analysed by performing covariance analysis instead of variance analysis. Generally, analysis of the association between two variables should consider the distribution of the two variables at the same time. In this case, the variance representing the common distribution between the two variables is called the covariance, which is a representative indicator of a linear relationship between the two variables. The formula for the sample covariance and the standardized covariance is as follows:

$$S_{xy} = \frac{1}{n-1}\sum_{i=1}^{n}(x_i - \bar{x})\,(y_i - \bar{y}) \tag{1}$$

$$r = \frac{S_{xy}}{S_x S_y} \tag{2}$$

The linear statistical model in an equation is as follows:

$$y_{ij} = \mu + \tau_i + \varepsilon_{ij} \begin{cases} i = 1, 2, \dots, a \\ j = 1, 2, \dots, n \end{cases} \tag{3}$$

Here, the treatment effect τ_i and ε_{ij} are random variables. It is assumed that the treatment effect τ_i is a random variable with NID (0, σ_τ^2), the error is a random variable with NID (0, σ_τ^2), and τ_i and ε_{ij} are independent. Since τ_i and ε_{ij} are independent, the variance of all observations is presented as follows:

$$(y_{ij}) = \sigma_\tau^2 + \sigma^2 \tag{4}$$

Variance σ_τ^2 and σ^2 are called variable components of variance or random effects models. In random effects models, an observation follows a normal distribution because combines the sphere's random variables $\tau_i$and ε_{ij} that independently follow the normal distribution. In a random model, the observation y_{ij} is independent only when it comes from different factor levels, unlike in a fixed-effect model where all observations y_{ij} are independent. The covariance between the two observations is reflected as follows:

$$\mathrm{Cov}(y_{ij}, y_{ij'}) = \sigma_\tau^2 \quad j \neq j' \tag{5}$$

$$\mathrm{Cov}(y_{ij}, y_{ij'}) = 0 \quad i \neq i' \tag{6}$$

The covariance structure of the observed values of the single-factor random effect model can be expressed through the covariance matrix of the observed values. To explain this, assuming that a = 3 treatments and n = 2 repetitions, there are N = 6 observations, which can be expressed as a vector.

$$y = \begin{bmatrix} y_{11} \\ y_{12} \\ y_{21} \\ y_{22} \\ y_{31} \\ y_{32} \end{bmatrix} \tag{7}$$

The 6 x 6 covariance matrix of this observation is as follows:

$$\mathrm{Cov}(y) = \begin{bmatrix} \sigma_\tau^2 + \sigma^2 & \sigma_\tau^2 & 0 & 0 & 0 & 0 \\ \sigma_\tau^2 & \sigma_\tau^2 + \sigma^2 & 0 & 0 & 0 & 0 \\ 0 & 0 & \sigma_\tau^2 + \sigma^2 & \sigma_\tau^2 & 0 & 0 \\ 0 & 0 & \sigma_\tau^2 & \sigma_\tau^2 + \sigma^2 & 0 & 0 \\ 0 & 0 & 0 & 0 & \sigma_\tau^2 + \sigma^2 & \sigma_\tau^2 \\ 0 & 0 & 0 & 0 & \sigma_\tau^2 & \sigma_\tau^2 + \sigma^2 \end{bmatrix} \tag{8}$$

○ Research hypothesis (H_1):

- There is a positive correlation between base interest rate and rate of increase or decrease in home sale prices.
- There is a positive correlation between the base interest rate and the ratio of household debt to GDP prices.
- There is a positive correlation between the base interest rate and the bond transaction performance.

○ Research hypothesis (H_0)

- There is a negative correlation between base interest rate and rate of increase or decrease in home sale prices.
- There is a negative correlation between the base interest rate and the ratio of household debt to GDP prices.

· There is a negative correlation between the base interest rate and the bond transaction performance.

3. Research Findings and Theoretical Implications

In the case of South Korea, the low interest rate continued for a long period (2013-2021), and from 2022, it was converted to a high interest rate, which was greatly affected by the economy as a whole. The government, companies, and individuals who are economic actors were also greatly affected economically. The study employed an analysis using the Bank of Korea's base rate (2003–2022), the Korea Real Estate Board's rate of increase or decrease in home sales prices (2005–2022), the Bank of Korea's household debt to GDP ratio (2003–2022), and the Korea Exchange's bond transaction performance (2003–2022).

Specifically, we aimed to analyse economic trends for the low interest rate and the high interest rate by dividing it into South Korea's the low interest rate period (2013–2021) and the high interest rate period (2003-2012, 2022). To do this, first, we conducted a covariance analysis of the base interest rate and the rate of increase or decrease in home sales prices in South Korea. Before conducting the covariance analysis, we carried out a one-way analysis of variance with the base rate as a factor and the rate of increase or decrease in home sales prices as a dependent variable to identify whether there is a difference in the rate of increase or decrease in home sale

prices according to the base rate. The results of the one-way analysis of variance for the base rate and the rate of increase or decrease in home sale prices are particularized in Table 1.

Table 1. The results of one-way analysis of variance for base rate and rate of increase or decrease in home sale prices

Descriptive								
Housing Price								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	9	2.6333	3.24230	1.08077	.1411	5.1256	-.40	9.90
2	11	2.8182	4.41448	1.33102	-.1475	5.7839	-4.70	11.60
Total	20	2.7350	3.83300	.85708	.9411	4.5289	-4.70	11.60

Test of Homogeneity of Variances			
Levene Statistic	df1	df2	Sig.
.445	1	18	.513

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.169	1	.169	.011	.918
Within Groups	278.976	18	15.499		
Total	279.146	19			

Source: own data

Table 1 features the average and standard deviation of the increase or decrease rates of home sales prices for each low-interest and high-interest rate period. In the test of homogeneity of variances, the verification results for the assumption of homogeneity of the variance between low-interest and high-interest rate periods are presented.

Levene's statistic has a p-value of 0.513, which does not have a problem with the assumption of equal variance between groups. The completed ANOVA confirmed that there was no difference in the rate of increase or decrease rates of home sales prices according to the base interest rate (F-value = 0.011, p = 0.918). Therefore, it is that the base interest rate affects the rate of increase or decrease in home sales prices. Table 2 outlines the covariance analysis results for the base rate and the rate of increase or decrease in home sales.

Table 2. Covariance analysis results for the base rate and the rate of increase or decrease in home sale prices

Between-Subjects Factors		
		N
Interest Rate	1	9
	2	11

Descriptive Statistics			
Dependent variable: House			
Interest	Mean	Std. Deviation	N
1	2.6333	3.24230	9
2	2.8182	4.41448	11
Total	2.7350	3.83300	20

Levene's Test of Equality of Error Variances[a]			
F	df1	df2	Sig.
.033	1	18	.859

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

Note: a. Design: Intercept + Standard + Interest

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	7.898[a]	2	3.949	.247	.784	.028
Intercept	.593	1	.593	.037	.849	.002
Standard	7.729	1	7.729	.484	.496	.028
Interest	3.883	1	3.883	.243	.628	.014
Error	271.248	17	15.956			
Total	428.750	20				
Corrected Total	279.146	19				

Note: a. R Squared = .028 (Adjusted R Squared = -.086) Source: own data

Table 2's between-subjects factors present the number of cases for each group in the low-interest rate period and the high-interest rate period. In the descriptive statistics, the average, the standard deviation, and number of cases for each group during the low-interest and high-interest rate periods are presented. Levene's test of equality of error variances presents the results of the verification of the assumption of homogeneity of the variance of groups in the low-interest and high-interest rates.

Levene's statistics have a p-value of 0.859, which does not have a problem with the assumption of equal variance between groups. The tests of between-subjects effects are the results of covariance analysis in a state in which the rate of increase or decrease rates of home sales is reflected as a covariance. In the covariance analysis result, it was found that the rate of increase or decrease in the home sale prices was treated as a cointegration, and there was a difference in the rate of increase or decrease in the home sale prices according to the base interest rate (F-value=0.243, p=0.628). The partial eta squared showed that the low-interest rate and high-interest rate periods were 0.014, which was low impact, and the base rate was 0.028, which the effect was high impact.

We conducted a covariance analysis of the base interest rate and the ratio of household debt to GDP in South Korea. Before conducting the covariance analysis, we conducted a one-way analysis of variance with the base rate as a factor and the ratio of household debt to GDP as a dependent variable to find out whether there is a difference in the ratio of household debt to GDP according to the base rate. The results of the one-way analysis of variance for the base rate and the ratio of household debt to GDP can be seen in Table 3.

Table 3. The results of one-way analysis of variance for the base rate and the ratio of household debt to GDP

Descriptive								
Debt								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1.00	9	78.8000	7.92181	2.64060	72.7108	84.8892	67.90	89.90
2.00	11	63.6000	8.70034	2.62325	57.7550	69.4450	54.40	86.80
Total	20	70.4400	11.24523	2.51451	65.1771	75.7029	54.40	89.90

Test of Homogeneity of Variances			
Levene Statistic	df1	df2	Sig.
.106	1	18	.749

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,143.648	1	1,143.648	16.351	.001
Within Groups	1,259.000	18	69.944		
Total	2,402.648	19			

Source: own data

Table 3 lists the average and standard deviation of the ratio of household debt to GDP for each low-interest and high-interest rate period. In the test of homogeneity of variances, the verification results for the assumption of homogeneity of the variance between low-interest and high-interest rate periods are presented.

Levene's statistic has a p-value of 0.749, which does not have a problem with the assumption of equal variance between groups. ANOVA was a result of the analysis of variance, and it was found that there was a difference in the ratio of household debt to GDP according to the base interest rate (F-value=16.351, p=0.001). Therefore, it is not that the base interest rate affects the ratio of household debt to GDP. However, interest rates are expected to affect the ratio of household debt to GDP. Therefore, it is necessary to investigate the pure effect of the treatment variable through covariance analysis. Table 4 shows the covariance analysis results for the base rate and the ratio of household debt to GDP.

Table 4. The covariance analysis results for the base rate and the ratio of household debt to GDP

Between-Subjects Factors		
		N
Interest	1.00	9
	2.00	11

Descriptive Statistics			
Dependent variable: Debt			
Interest	Mean	Std. Deviation	N
1.00	78.8000	7.92181	9
2.00	63.6000	8.70034	11
Total	70.4400	11.24523	20

Levene's Test of Equality of Error Variances[a]			
F	df1	df2	Sig.
.284	1	18	.600

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

Note: a. Design: Intercept + Standard + Interest

Tests of Between-Subjects Effects						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1,386.958[a]	2	693.479	11.607	.001	.577
Intercept	10,964.823	1	10,964.823	183.523	.000	.915
Standard	243.310	1	243.310	4.072	.060	.193
Interest	62.950	1	62.950	1.054	.319	.058
Error	1,015.690	17	59.746			
Total	101,638.520	20				
Corrected Total	2,402.648	19				

Notes: a. R Squared = .577 (Adjusted R Squared = .528)

Source: own data

Table 4's between-subjects factors exhibit the number of cases for each group in the low-interest rate period and the high-interest rate period. The descriptive statistics incorporates the average, the standard deviation, and the number of cases for each group during the low-interest and high-interest rate periods. Levene's test of equality of error variances[a] presents the verification results of the assumption of homogeneity of the variance of groups in the low-interest and high-interest rates, with a p-value of 0.600, which does not have a problem with the assumption of equal variance between groups. The tests of between-subjects effects are the results of covariance analysis in a state in which the ratio of household debt to GDP is reflected as a covariance.

The covariance analysis results depict that the ratio of household debt to GDP was treated as a cointegration, and there was a difference in the ratio of household debt to GDP according to the base interest rate (F-value = 1.054, p = 0.319). Additionally, partial eta squared showed that the low-interest rate and high-interest rate periods were 0.193, which denotes a low impact, and the base rate was 0.058, demonstrating a high impact.

We carried out a covariance analysis of the base interest rate and the bond transaction performance in South Korea. Before conducting the covariance analysis, we completed a one-way analysis of variance with the base rate as a factor and the bond transaction performance as a dependent variable to determine whether there is a difference in the bond transaction performance according to the base rate. The results of the one-way analysis of variance for the base rate and the bond transaction performance are detailed in Table 5.

Table 5. The results of one-way analysis of variance for the base rate and the bond transaction performance

Descriptive								
Bond								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1.00	9	8,249,530.2222	2,508,426.80335	836,142.26778	6,321,382.6951	10,177,677.7493	5l293,656	12,956,815
2.00	11	2,249,053.0909	1,430,513.61136	431,316.08240	1,288,020.9702	3,210,085.2116	715,973	5,426,831
Total	20	4,949,267.8000	3.620,334.92833	809,531.50011	3,254,898.8975	6,643,636.7025	715,973	12,956,815

Test of Homogeneity of Variances			
Levene Statistic	df1	df2	Sig.
3.416	1	18	.081

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	178,228,342,726,888.750	1	178,228,342,726,888.750	45.311	.000
Within Groups	70,801,332,144,968.470	18	3,933,407,341,387.137		
Total	249,029,674,871,857.220	19			

Source: own data

Table 5 describes the average and standard deviation of the bond transaction performance for each low-interest and high-interest rate period. The homogeneity of variances test presents the verification results between low-interest and high-interest rate periods. Levene's statistic has a p-value of 0.081, which does not have a problem with the assumption of equal variance between groups. ANOVA was conducted and showed a difference in the bond transaction performance according to the base interest rate (F-value = 45.311, p = 0.000). However, interest rates are expected to affect the bond transaction performance. Therefore, it is necessary to investigate the pure effect of the treatment variable through covariance analysis. Table 6 specifies the covariance analysis results for the base rate and the bond transaction performance.

Table 6. The covariance analysis results for the base rate and the bond transaction performance

Between-Subjects Factors		
		N
Interest	1.00	9
	2.00	11

Dependent Variable: Bond			
Interest	Mean	Std. Deviation	N
1.00	8,249,530.2222	2,508,426.80335	9
2.00	2,249,053.0909	1,430,513.61136	11
Total	4,949,267.8000	3,620,334.92833	20

Levene's Test of Equality of Error Variances[a]			
F	df1	df2	Sig.
3.641	1	18	.072
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.			
Note: a. Design: Intercept + Standard + Interest			

Tests of Between-Subjects Effects						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	187,147,858,532,945.660[a]	2	93,573,929,266,472.830	25.706	.000	.752
Intercept	89,896,645,529,251.830	1	89,896,645,529,251.830	24.696	.000	.592
Standard	8,919,515,806,056.990	1	8,919,515,806,056.990	2.450	.136	.126
Interest	32,066,050,992,847.770	1	32,066,050,992,847.770	8.809	.009	.341
Error	61,881,816,338,911.530	17	3,640,106,843,465.384			
Total	738,934,709,994,194.000	20				
Corrected Total	249,029,674,871,857.200	19				

Note: a. R Squared = .752 (Adjusted R Squared = .722) Source: own data

Table 6's between-subjects factors present the number of cases for each group in the low-interest rate period and the high-interest rate period. In the descriptive statistics, the average, the standard deviation, and number of cases for each group during the low-interest and high-interest rate periods are presented. Levene's test of equality of error variances[a] details the results of the verification of the assumption of homogeneity of the variance of groups in the low-interest and high-interest rates. Levene's statistics has a p-value of 0.072, which does not have a problem with the assumption of equal variance between groups. The tests of between-subjects effects are the results of covariance analysis in a state in which the bond transaction performance is reflected as a covariance. In the covariance analysis result, it was found that the bond transaction performance was treated as a cointegration, and there was a difference in the bond transaction performance according to the base interest rate (F-value = 8.809, p = 0.009). The partial eta squared displayed that the low-interest rate and high-interest rate periods were 0.126, which was low impact, and the base rate was 0.341, with a high impact.

4. Research Discussion for Economic Trend

In financial and economic terms, the interest rate is the future price for giving up current consumption. It refers to the sum of the compensation for not being able to use cash, which is currently liquid, and the price for the future. Usually, it is thought that the interest rate is formed at a positive level. In South Korea, the base rate, the standard for bank deposit rates, has never recorded a negative level. Similarly, nominal interest rates have never been negative in South Korea. However, the real interest rate considering inflation has been negative.

The method of measuring interest rate can be divided into a real interest rate considering inflation and a nominal interest rate indicating a currency unit. South Korea's nominal interest rate is positive. Starting with the global financial crisis in 2008, a European fiscal crisis triggered the following year, accelerating the global economic downturn. Accordingly, developed countries implemented expansionary monetary policies to prevent a rapid economic downturn, and as a major policy, the base rate was cut to zero. As the base rate, which is the standard for the term deposit rate, is lowered, banks and non-bank deposit handling institutions cut the deposit rate all at once. Currently, the deposit rate and inflation rate are high. It is the US policy rate, the Federal Fund Rate (FFR), that greatly influences South Korea's basic interest rate. The United States has implemented a definitive monetary policy to overcome COVID-19; however, liquidity causes inflation, raising and freezing the FFR interest rate. For South Korea, the low interest rate continued for a long period, and it is predicted that the high interest rate will continue for an even longer time, considering that from 2022, it was already converted to a high interest rate and was greatly affected throughout the economy.

The representative monetary policy of the Bank of Korea is the Bank Intermediated Lending Support Facility. It is a system in which the Bank of Korea provides low-interest funds within certain range the bank's loan handling performance to support the financing of small and medium-sized enterprises. Hence, in South Korea, the government, companies, and individuals, who are economic actors, are also actively making an effort to respond to it.

Conclusion

The study's analysis of variance found no difference in the rate of increase or decrease in home sale prices according to the base rate. Therefore, it can be concluded that the base rate affects the rate of increase or decrease in home sale prices. Moreover, the analysis of variance indicated a difference in the rate of the ratio of household debt to GDP to the base rate; hence, the base rate does not affect the ratio of household debt to GDP. However, interest rates are expected to affect the ratio of household debt to GDP. The results also showed a difference in the bond transaction performance depending on the base rate, implying that the base rate does not influence the bond transaction performance. However, the interest rate may affect the bond transaction performance. Overall, the research findings demonstrate that the base rate affects the rate of increase or decrease in home sale prices and the bond transaction performance, but the ratio of household debt to GDP does not. However, for a more accurate analysis, the result of processing the cointegration showed that the base rate affects the rate of increase or decrease in home sale prices, the bond transaction performance, and the ratio of household debt to GDP. In South Korea, the low interest rate continued for a long time, and from 2022, it has been converted to high interest rates, which significantly impacts the overall economy.

The current study focused on the base rate, the home sales price, the household debt, and the bond transaction performance among economic indicators. We analysed economic trends for South Korea's low interest rate and high interest rate period, highlighting the base rate, the home sale price, the household debt, and the bond transaction performance. Although it is expected that the base rate will continue to be cut and frozen due to prospects for interest rates, the trend of changes in the base rate is not anticipated to easily rebound due to economic uncertainty. As inflation is not easy to stabilize, it is predicted that it will continue to rise and freeze the base rate to recover liquidity. The study's results are expected to accurately analyse economic trends for low interest rates and high interest rates in South Korea and provide guidelines for effective economic policy.

Credit Authorship Contribution Statement

The author contributed the writing, the visualization, the validation, the supervision, the software, resources, the project administration, the methodology, the investigation, the funding acquisition, the formal analysis, the data curation, and the conceptualization.

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Conflict of Interest Statement

The author declares no conflicts of interest.

Data Availability Statement

Data included in article/supp. material/referenced in article.

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