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Relationship Between Regulatory Interest and Market Interest Rates in Vietnam: Quantitative Analysis Perspective

Nguyen Thi Van Anh¹, Nguyen Ngoc Ha Nguyen², Dinh Le Quynh Thu³, Truong Thi Tuyet⁴

¹University of Labour and Social Affairs. Email: Nguyenvananh83@ulsa.edu.vn

² University of Notre Dame. Email: nnguye23@nd.edu

³ Foreign Trade University. Email: dinhlequynhthu@gmail.com

⁴Diplomatic Academy of Vietnam. Email: tuyettruongdrf@gmail.com

Abstract

The article studies the relationship between regulatory interest and market interest rates in Vietnam from 2015 – 2022. This relationship has been mentioned in many theories and empirical studies in different countries and in different periods. In order to explain it, the research team collected data on the refinancing rate – which represents the regulatory interest rates and lending rates - representing the market interest rates from 2005 to 2022. The data is collected quarterly and analyzed using Eviews8 software to build a linear regression model showing the relationship between regulatory interest rates and market interest rates during the research period. In this article, the research team divides the research period into three phases: 2005Q1 - 2011Q4, 2012Q1 - 2016Q4, 2017Q1 -2022Q4. The results of the linear regression model show that for the period 2005Q1 - 2011Q4, when the regulatory interest rate increases by 1%, the market interest rate increases by 1%, the market interest rate increases by 0.7326%; for the period 201201 - 201604, when the regulatory interest rate increases by 1%, the market interest rate increases by 0.5943%; for the period 2017O1-2022O4, when the regulatory interest rate increases by 1%, the market interest rate increases by 0.2269%. This shows a positive relationship of regulatory interest rate and market interest rate. In addition, for the period 2012O1-2016O4, the research team added trend variables and for the period 2017Q1-2022Q4 the research team added trend variables and dummy variables to the regression model. It also proves that the market interest rate in the research period is governed by the trend and volatility of the economy. From the research results, the research team made several exchanges and discussions to improve the effectiveness of the interest rate management policy in order to achieve the goal of stabilizing the macro economy and supporting economic growth.

Keywords: Relationship, Regulatory Interest Rate, Market Interest Rate, Vietnam, Quantitative Analysis

1. Introduction

2005 to 2022 is the period in which the regulatory interest rate and market interest rate experience multiple fluctuations. Especially in the period before 2015, the Central Bank continuously changed the regulatory interest rate according to the development of the economy, the interest rate in the market also showed a trend of changing in the same direction with the regulatory interest rate over the years. After 2015, the Central Bank implemented a policy of stabilizing interest rates, the regulatory interest rates fluctuated from 6.5% to 4%. Data on regulatory

interest rates and market interest rates show a positive relationship from a qualitative perspective. This study "Relationship between regulatory interest rate and market interest rate in Vietnam: quantitative analysis perspective" has an important meaning in testing the relationship between operating interest rate and market interest rate in Vietnam, from which there are solutions and proposals in the management of interest rate policy and monetary policy of the State Bank of Vietnam. In this article, the research team focuses on analyzing the relationship between regulatory interest rate (represented as refinancing rate) and market interest rate (represented as lending interest rate) in Vietnam in the period of 2005 -2022 via Excel software, and Eviews 8.

2. Research overview

Many empirical studies show the impact of interest rates on macroeconomic variables such as inflation, exchange rate, aggregate demand, etc. To clarify the relationship between interest rates and macro variables, some studies point out the relationship between the central bank's regulatory interest rate and the market interest rate. Research on the impact of monetary policy on growth and inflation, Cuong, T.A et al. (2021) showed a positive correlation between regulatory interest rate (represented by refinancing interest rate) and market interest rate (represented as lending interest rate). By quanitative analysis method, the study shows that when the refinancing interest rate increases by 1%, the lending interest rate will increase by 0.656787%. In addition, based on the analysis of data on Vietnam interest rates for the period from 2015 to 2019, the article shows that the regulatory interest rates of the State Bank of Vietnam have the same trend of fluctuations with interest rates in the market.

Anh, N.T.L (2015) studied the impact of lowering interest rates on Vietnam's financial market, showing a positive correlation between regulatory interest rates and market interest rates by a number of signs: Since 2012, the State Bank has tightened interest rates, issued a policy to reduce deposit interest rates to 7.5% with the aim of revitalizing the economy, leading commercial banks to simultaneously lower interest rates to low levels; From 2012 to 2014, the State Bank's flexible management of the interest rate ceiling helped reduce the deposit interest rate, thereby reducing lending rates; The credit interest rate of commercial banks depends on the interest rate of the central bank when commercial banks cannot determine their own buying and selling prices.

Chi, V.M & Khanh, P.G (2022) pointed out that the regulatory interest rate of the Central Bank will guide and be the basis for determining other interest rates in the market because it is the price that credit institutions make borrowing/depositing transactions with each other or with the central bank. After that, the credit institutions will provide financial products to customers with normal interest rates based on the interest rate of the central bank. Thus, when operating monetary policy according to the interest rate target, the central bank will change the interest rate (target/policy interest rate) to affect all other business interest rates in the economy, specifically: The Central Bank will use the interest rate to implement tightening or expansion of monetary policy. Regarding deposit interest rates, after the State Bank raised the operating interest rate by 200 basis points, commercial banks quickly raised the deposit interest rates of all terms.

Timothy Cook & Thomas Hahn (1989) examined the effect of monetary policy on interest rates by estimating the impact of changes in the federal funds rate target – the Federal Reserve's policy tool – for market interest rates in the 1970s. The results show that changes in the target cause large fluctuations in short-term interest rates and smaller but significant changes in average and long-term interest rates.

Anne, V.W (2010) studied money market activity and short-term forecast volatility in the United Kingdom, hypothesized whether, in the UK, the choice of operating framework for monetary policy is systematically related to money market interest rate models. The results indicate that a tighter spread between the market interest rate and the official reportate (the Bank of England's operating rate) leads to money market volatility.

Spencer Dale (1993) studied the effect of changes in UK official interest rates on market interest rates since 1987, the results show that market interest rates move in the same direction as the regulator interest rate. (Nhue Man, 2022), showed the positive relationship of regulatory interest rates and market interest rates. Research on interest rate management by the State Bank of Vietnam, Khai, N.T (2017) shows that when the central bank changes the basic interest rate, it affects short-term interest rates in the money market. Unlike previous studies, this study shows

a two-way relationship between basic interest rates and market interest rates. The basic interest rate of the Central Bank is always built and adjusted on the basis of the basic lending interest rate of commercial banks combined with detailed analysis and assessment of the macroeconomic situation of the economy in each specific period. In addition, the author recommends that the refinancing rate be used as a proxy for the regulatory interest rate in monetary policy.

Cai, N.T (2020) also supported a positive relationship between the regulatory interest rate and the market interest rate, specifically, when the State Bank cut the basic interest rate (monetary easing) causing interest rates on loans to decrease. On the contrary, when the State Bank of Vietnam increases the basic interest rate (tightening monetary policy), commercial banks increased lending interest rates in terms of terms, making the demand for money decrease. Research by Thanh, N.T.K (2011); Minh, D.T. et al. (2010) also showed a positive relationship between regulatory interest rates and market interest rates through the monetary transmission mechanism.

Although some previous empirical studies have shown a positive relationship between regulatory interest rates and market interest rates. However, not many articles refer to quantitative analysis, mainly drawing conclusions about the above relationship based on descriptive statistics and trends of the research period. On the basis of a research review, this article uses a linear regression model to analyze the quantitative relationship between operating interest rates (represented as refinancing interest rates) and market interest rates (represented as lending rates) in Vietnam for the period 2005-2022. Thereby, one question arises is that when the refinancing interest rate changes, how does the lending interest rate change?

2. Movements of regulatory interest rates and market interest rates in Vietnam in the period 2005 - 2022

2.1. Types of interest rates and relationships

To operate monetary policy through the interest rate channel, the State Bank of Vietnam uses the *regulatory interest rate* (*official interest rate*) including: basic interest rate, rediscount interest rate, refinancing interest rate.

Basic interest rate is a tool to implement monetary policy of the State Bank of Vietnam in the short term. According to the Law on the State Bank of Vietnam, the basic interest rate applies only to VND, announced by the State Bank, as a basis for credit institutions to set business interest rates.

Rediscount interest rate is the interest rate applied to discounting and rediscounting of commercial paper and other valuable papers such as treasury bills, certificates of deposit. This is the short-term lending interest rate of the State Bank to commercial banks and other credit institutions in the form of rediscounting valuable papers that are not yet due for payment. It can be understood that the rediscount interest rate is applied on the basis of valuable papers such as bills of exchange, promissory notes, and bonds.

Refinancing interest rate is the interest rate at which the State Bank of Vietnam applies to refinancing operations for commercial banks. In Vietnam, the State Bank refinances commercial banks through the following forms: Onlending according to credit records; Discount, rediscount commercial paper and other short-term valuable papers; On-lending in the form of pledge of short-term valuable papers.

The relationship between regulatory interest rates and market interest rates: The official interest rate management has established an interest rate management framework: *The refinancing interest rate is considered as the interest rate ceiling, the rediscounting interest rate is the interest rate floor of the interbank market and the open market interest rate is the guiding rate*. That will affect the market interest rates including deposit rates and lending rates. In addition, not only the State Bank in Vietnam affects the market interest rate through the official interest rate adjustment, it also uses a number of measures to control market interest rates such as ceiling deposit interest rates and lending rates (Cuong, T.A, et al., 2021).

The market interest rate is the interest rate determined by the supply and demand for capital in the money market. Market interest rates rise or fall, depending on capital needs, economic conditions, and monetary policy.

Bank deposit interest rate is the interest rates that the bank pays for deposits in the bank. Bank deposit interest rates have different levels depending on the type of deposit (non-term, savings, etc.), deposit term and deposit size.

Bank credit interest rate (loan interest rate) is the interest rate that borrowers have to pay to the bank when borrowing from the bank. Bank credit interest rates also have many levels depending on the type of loan (commercial loan, installment loan, loan via credit card...), the level of relationship between the bank and the customer, and the agreement between the two parties.

Discount rate is the interest rate applied when a bank lends to a customer in the form of a discount on commercial paper or other valuable papers that have not yet been due for payment by the customer. It is calculated as a percentage of the face value of valuable papers and is deducted as soon as the bank gives the loan to the customer. Thus, the discount rate is paid in advance to the bank, not like the normal credit interest rate.

2.2. Regulatory and market interest rates in Vietnam

To examine the relationship between the regulatory interest rate and the market interest rate in Vietnam in the period 2005-2022, the study collects data on the refinancing rate (representing the regulatory rate) and the lending interest rate (representing market interest rate). The relationship between refinancing rate and lending interest rate is shown in Figure 1.



Figure 1: Refinancing interest rates and lending interest rates Source: Compiled from the State Bank of Vietnam, IFS, IMF- Period 2005Q1-2011Q4:

Figure 1 shows the positive relationship between refinancing interest rate (representing operating interest rate) and lending interest rate (representing market interest rate) in the period 2005Q1-2008Q4. Specifically, from 2005Q1-2006Q3, the regulatory interest rate remained stable at 5%, the market interest rate increased but not significantly, from 10.82% to 11.8% in 2006Q1 and remained stable until the end of Q3/2006. From Q4/2006 to Q4/2007, the SBV increased the regulatory interest rate from 5% to 6.5% and kept it stable over the quarters. Lending interest rates during this period remained stable at 11.8%. Entering Q1/2008, the SBV increased the regulatory and refinancing interest rates from 7.5% to 15% in Q3/2008 and then decreased to 10.25% in Q4/2008. Correspondingly, market interest rates, specifically lending rates, increased from 12.32% in Q1/2008 to 20.1% in Q3/2008 and then decreased to 14.08% in Q4/2008. The reason is that in 2008, inflation was at 23% while GDP was only at 6.23% (Statistical Yearbook, 2010). This prompted the State Bank to raise interest rates to curb inflation, thereby increasing lending rates. Thus, the period 2005Q1-2008Q4 shows that regulatory interest rates have a positive impact on market interest rates.

The period 2009Q1-2011Q4 also showed a positive relationship between regulatory interest rates and market interest rates. Specifically, from Q3/2010, refinancing interest rates increased continuously and reached the highest level in 2011Q4 with the interest rate of 15%. Although, in the first months of 2011, the State Bank continued to implement measures to stabilize the money market to support economic growth. However, with signs of increasing inflation, in the last months of 2011, the liquidity situation of some credit institutions was in a big shortage and was in an alarming state, the money market had many potential risks of instability, lending interest rates were high, up to 20-25%/year. With this situation, the SBV adjusted the refinancing interest rate 4 times in 2011 and the highest was 13%/year. Along with that, lending interest rates increased when regulatory interest rates increased, specifically, lending rates increased from 13.17% in Q3/2010 to 18.02% in Q2/2011. Thus, the period 2009Q1-2011Q4 showed most positive relationship between the regulatory interest rate and the market interest rate, when the operating interest rate increased, the market interest rate increased.

- Period 2012Q1-2016Q4

The period 2012Q1-2014Q4 showed a downward trend of the regulatory interest rate and the market interest rate. Specifically, in Figure 1, the refinancing interest rate decreased from 14% in Q1/2012 to 6.5% in Q4/2014. Because in 2012, when inflation was controlled and gradually reduced, to support production and business, the SBV gradually adjusted the refinancing interest rate. Lowering the operating interest rate helped to lower the costs of credit institutions and indirectly contributed to lowering lending rates in the market. For example, during the period 2012Q1-2014Q4, lending interest rates in the market tended to decrease from 15.3% in Q1/2012 to 8.16% in Q4/2014.

Entering the period 2015Q1-2016Q4, the chart shows that the regulatory interest rate was kept at a stable level of 6.5% (State Bank of Vietnam), along with that, the market interest rate tended to gradually decrease from 7.23% in Q1/2015 to 6.96% in Q4/2015 and remained stable until the end of 2016. Thereby, the period under consideration showed a positive relationship between regulatory interest rates and market interest rates. - *Period 2017Q1-2022Q4*

Figure 1 shows that from Q1/2017 to Q4/2019, regulatory interest rates tended to decrease from 6.5% to 6.25% and remained stable until Q2/2019, then continued to decrease to 6.2% in Q3/2019, continued to decrease to 6.0% in Q4/2019. Because in the period 2017Q1-2019Q4, global economic growth was slowing down, the recovery process in trade, production and investmen wass losing momentum. The US-China trade war was complicated, FDI inflows recovered compared to 2018, but remained weak, investment confidence decreased. The regulatory interest rate level was maintained stable and gradually decreased, in line with the domestic and foreign economic context. However, in terms of lending interest rates in the market, there were fluctuations and mainly an upward trend during this period.

In 2020, the global economy was affected significantly by the outbreak of the Covid-19 pandemic. In the period of 2020-2021, the SBV maintained low interest rates, combined with abundant liquidity management in the money market. As a result, by the end of November 2021, the average VND deposit and lending interest rates of credit institutions decreased by about 0.51%/year and 0.81%/year respectively compared to the end of 2020 after decreasing by about 1%/year in 2020. The average lending interest rate for priority sectors according to the Government's policy is 4.3%/year (lower than the prescribed ceiling rate of 4.5%/ year).

2022 marks the recovery of the economy when the Covid-19 pandemic is basically under control. The regulatory interest rate remained stable at 4% in the first two quarters of the year, then increased to 5% in the third quarter and to 6% in the fourth quarter. Along with that, market interest rates also showed an increasing trend, specifically, lending interest rates increased on a quarterly basis, from 7.52% in Q1/2022 to 8.52% in Q4/2022. Thereby showing the positive relationship between refinancing interest rate (representing operating interest rate) and lending interest rate (representing market interest rate).

3. The relationship between regulatory interest rates and market interest rates in Vietnam in the period 2005 - 2022: Perspectives from quantitative analysis

3.1. Research data

To examine the relationship between regulatory interest rates and market interest rates in Vietnam in the period 2005 – 2022, the research team collects data on lending rates (*LSCV- represents the market interest rates*) and refinancing interest rate (*LSTCV- represents the regulatory interest rates*) in the period 2005 - 2022, quarterly statistics, from 2005Q1 to 2022Q4 with 72 observations. However, due to many macroeconomic fluctuations in the period 2005-2022, the research team runs an econometric model showing the relationship between lending interest rate and refinancing interest rate in 3 stages: 2005Q1-2011Q4; 2012Q1- 2016Q4; 2017Q1- 2022Q4.

Besides, in the model, the research team uses the trend variable T for the period 2012Q1-2016Q4; simultaneously using trend variable T and dummy variable D for the period 2017Q1-2022Q4.

3.2. Research methodology

The research team uses a linear regression model to analyze the relationship between regulatory interest rates and market interest rates. The general construction model has the form:

$$LSCV = C(1) + C(2)*LSTCV + C(3)*T + C(4)*D + e$$

With e is random noise

The procedure is taken as follows:

Step 1: Use Eviews 8 software to run the model with collected secondary data.

Step 2: Check the statistical significance of the regression coefficients with the explanatory variables and the statistical significance of the regression model with significance level α =0.05.

A regression coefficient is statistically significant if:

Prob < α=0.05
Prob(F-statistic) < α=0.05
Step 3: Check the explainability of the model through the coefficients R-squared and Adjusted R-squared A model is explanatory (fit) if:
R-squared > 0.6
Adjusted R-squared > 0.6

Step 4: Check the model's defects with $\alpha = 0.05$.

A model is good (*can be used for analysis*) when the regression coefficients in the model are statistically significant, and the R–squared, Adjusted R–squared should not have autocorrelation and heteroskedasticity. At the same time, the residuals of the model should follow the standard normal distribution.

In the study, the authors used tools on Eviews 8 to check for these defects. Specifically:

- Breusch-Godfrey test to check autocorrelation. The model does not have an autocorrelation defect at some level p if Prob (F-statistic) and Prob (Obs *R-squared) > α =0.05.
- Breusch-Pagan-Godfrey to test heteroskedasticity. The model is not subject to heteroskedasticity if Prob (F-statistic) and Prob (Obs*Chi-squared) > α=0.05.
- Jarque Bera to check if the residuals of the model follow the standard normal distribution. The residuals of the model are normally distributed if Prob (Jarque Bera) > 0.05.

When the above conditions are satisfied, the model results are estimated and analyzed.

3.3. Examining the relationship between regulatory interest rates and market interest rates in Vietnam in the period 2005-2022

The econometric model is used to explain the impact of regulatory interest rates on market interest rates for the period 2005-2022. The data is collected quarterly, the results are shown in *Table 1*.

Table 1: Impact of regul	latory interest rates on	market interest rates in	Viet Nam in the period	2005-2022
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Per	riod	2005Q1-2011Q4	2012Q1-2016Q4	2017Q1-2022Q4
Estimated coefficient	С	6.5987	14.6286	1.6671
	LSTCV	0.7398	0.5943	0.2269
	Т		-0.2613	0.0804
	D			-0.4347
Prob	С	0.0000	0.0000	0.2459
	LSTCV	0.0000	0.0000	0.0182
	Т		0.0000	0.0001
	D			0.0511
R- squared	·	0.8182	0.9720	0.6376
Adjusted R-so	quared	0.8112	0.9687	0.5833
Prob (F-Statistic)		0.000000	0.000000	0.000118
L		I	Source: 1	Model test results

Check model fit

- Period 2005Q1-2011Q4:

+ The coefficients are all statistically significant because the coefficient Prob (LSTCV)=0.0000 < 0.05; Prob (C)=0.0000 < 0.05

+ The regression model is suitable, due to the coefficient Prob (F-statistic) = 0.0000 < 0.05

+ The coefficients of determination R-squared and Adjusted R-squared are , respectively 0.8182; 0.8112 > 0.6

- Period 2012Q1-2016Q4:

+ The coefficients are all statistically significant because the coefficient Prob (LSTCV)=0.0000 < 0.05; Prob (C)=0.0000 < 0.05; Prob (T)=0.0000 < 0.05

+ The regression model is suitable, due to the coefficient Prob (F-statistic) = 0.000000 < 0.05

+ The coefficients of determination R-squared and Adjusted R-squared are , respectively 0.9720; 0.9687 > 0.6

- Period 2017Q1-2022Q4:

+ The coefficients are all statistically significant because the coefficient Prob (LSTCV)=0.0182 < 0.05; Prob (T)=0.0001 < 0.05

+ The regression model is suitable, due to the coefficient Prob (F-statistic) = 0.000118 < 0.05

+ The coefficients of determination R-squared = 0.6376 > 0.6

Period	2005Q1- 2011Q4	2012Q1-2016Q4	2017Q1-2022Q4
Prob. F	0.0770	0.7741	0.1433
Prob. Chi-Square	0.0676	0.7142	0.1021

Table 2: Breusch- Godfrey Serial Correlation LM Test (lags = 2)

Source: Model test results

According to Table 2, the Prob. F and Prob. Chi-Square in all 3 models corresponding to 3 research periods are > 0.05. The models do not have autocorrelation defects.

Table 3: Heteroskedasticity Test (White)				
Period	2005Q1- 2011Q4	2012Q1-2016Q4	2017Q1-2022Q4	
Prob. F	0.3785	0.2483	0.9404	
Prob. Chi-Square	0.3510	0.2293	0.9071	
Prob. Chi-Square	0.3689	0.3165	0.9777	

Source: Model test results

According to Table 3, the Prob values. F and Prob. Chi-Square in all 3 models corresponding to 3 research periods are > 0.05. The models are not flawed with variable variance.

The residuals of all 3 models follow a normal distribution, the Prob (Jarque-Bera) values in all 3 models correspond to the 3 periods under consideration > 0.05

Table 4: Normal distribution residuals			
Period	2005Q1- 2011Q4	2012Q1-2016Q4	2017Q1-2022Q4
Prob (Jarque-Bera)	0.3160	0.9534	0.7726

Source: Model test results

Regression model and analysis of model results

The results of regression data analysis using Eviews8 software in Table 1 have shown the impact of regulatory interest rates on market interest rates for the period 2005-2022 with quarterly data series with regression model as follows:

+ Period 2005Q1-2011Q4

LSCV = 6.5987 + 0.7398*LSTCV

The results of the regression model show that:

During the period 2005Q1-2011Q4, market interest rates are affected by regulatory interest rates. Specifically, C(2)=0.7398 > 0 shows a positive relationship between the regulatory interest rate and the market interest rate, when the regulatory interest rate increases by 1%, the market interest rate increases by 0.7326%.

+ Period 2012Q1-2016Q4

LSCV = 14.6286 + 0.5943*LSTCV - 0.2613T

The results of the regression model show that:

During the period 2012Q1-2016Q4, market interest rates are affected by regulatory interest rates. Specifically, C(2)=0.5943 > 0 shows that there is a positive relationship between the regulatory interest rate and the market interest rate, when the regulatory interest rate increases by 1%, the market interest rate increases by 0.5943% (*with conditions of other factors remain unchanged*). The model also shows that lending interest rates tend to decrease during this period, the coefficient of trend variable T is (-0.2613). The significance of the coefficient R-squared=0.9687: The model explains 96.87% of the volatility of market interest rates.

+ Period 2017Q1-2022Q4

LSCV = 1.6671 + 0.2269*LSTCV + 0.0804*T - 0.4347*D

The results of the regression model show that:

In the period 2017Q1-2022Q4, market interest rates are affected by regulatory interest rates. Specifically, C(2)=0.2269 > 0 shows that there is a positive relationship between the regulatory interest rate and the market interest rate, when the regulatory interest rate increases by 1%, the market interest rate increases by 0.2269% (*with the conditions of other factors remain unchanged*). The model also shows that lending interest rates tend to increase during this period, the coefficient of the propensity variable T is (0.0804), and there is a difference. The significance of the coefficient R-squared=0.6376: The model explains 63.76% of the volatility of market interest rates.

4. Some exchanges and discussions

The period 2005-2022 shows many fluctuations of Vietnam's macro economy. In particular, the period 2019-2021 shows the volatility of the global economy in general and Vietnam in particular when the Covid-19 pandemic broke out. While the world was facing an economic crisis, many countries fell into a situation of escalating inflation, Vietnam kept a stable inflation level thanks to macroeconomic policies, including the policy of controlling inflation. stable interest rates. Entering 2023, the economy has recovered again, but there are still certain difficulties and barriers. Faced with that situation, the research team made a number of discussions to improve the efficiency of interest rate management for the State Bank as follows:

The first, according to the monetary policy transmission mechanism of the countries, it is necessary to determine the official interest rate in regulatory monetary policy. The problem posed in the current regulatory interest rates, the State Bank should choose and use the refinancing interest rate as the key interest rate in regulatory monetary policy to properly reflect the movements of the money market, in line with the requirements of the monetary policy and the integration is getting stronger.

The second, the State Bank should choose the refinancing interest rate to represent the regulatory interest rate. In fact, for a long time, the ceiling lending interest rate for commercial banks did not exceed 150% of the basic interest rate, which has gradually lost the reference and market orientation of the basic interest rate. Therefore, the choice of interest rate for the State Bank in the market as the regulatory interest rate can reflect the relationship between supply and demand for capital in the market. In which, the refinancing interest rate is considered as the most appropriate interest rate that can be used as the regulatory interest rate of the State Bank in the coming time. Because this is the interest rate decided by the State Bank in the process of refinancing credit institutions. This interest rate, which has clear signs, orients the economy in the management of monetary policy by the State Bank. And the experience of many countries around the world using the refinancing interest rate as an effective regulatory interest rate.

The third, the State Bank needs to develop and adhere to the principles of monetary policy through reasonable determination of goals and commitment to pursuing goals in the medium and long term. Continuing to pursue the goal of stabilizing the macro-economy, in order to create a foundation for the determination of regulatory interest rates close to reality and improve the performance of monetary policy. The monetary policy operation process needs to be flexible but consistent in order to promote the market orientation of the regulatory interest rates, thereby building public trust.

The fourth, The regulatory interest rate should be based on the real market interest rate. Thereby overcoming the limitations of current regulatory interest rates, improving the stability in the operation of the interbank market. In order to implement the regulatory interest rate management mechanism in a new direction, the State Bank needs to experiment and choose policy responses so that the determination of the regulatory interest rate ensures transparency and clarity. The State Bank's interventions in the market need to ensure guidance, in order to promote the autonomy of member banks.

The fifth, The SBV needs to strictly control credit growth according to the set target, not let too high credit growth because it will lead to the risk of inflation in the economy, control credit growth lower than mobilized capital growth, control credit for real estate business, strictly control the safety ratio in business of commercial banks.

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