

Factors Affecting the Effect of Interest Channel in Operation of Monetary Policy in Vietnam

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Abstract:

The effect of the interest rate channel in operating monetary policy firstly depends on the exact determination of the operating interest rate, followed by the spread from the interest rate to the market interest rate and the influence of market interest rates to macroeconomic variables such as inflation, growth or unemployment, ... However, the scope of the study will focus mainly on the first steps of the mechanism of monetary policy propagation, ie is, the influence from the central bank's operating interest rate to the business interest rate of the banking system; The second step, including the effects of bank interest on aggregate demand, is outside the scope of this study. Therefore, the factors affecting the effectiveness of monetary policy through the interest rate mechanism are divided into four groups of factors: (i) The group of factors influencing from the international market includes the national exchange rate mechanism. that pursues and the movement of capital flows; dollarization of the economy; (ii) The group of factors for the quality of the balance sheet of the banking system includes liquidity ratio; asset quality of the bank, ...; (iii) The group of factors about the characteristics of the operating environment of the financial system, including the competitive level of the banking system, the level of separation between parts of the financial system; development of the financial system; the level of intervention by regulators in the financial market; regulatory environment; (iv) Other factors include budget deficit situation; the independence of the central bank and the domination of monetary policy

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1. Introduction

Currently, choosing interest rates as an intermediate target in monetary policy operation has become the general trend not only because this indicator has a closer relationship with the final goals, but also the central bank is more active in case of cope with shocks both on the supply and demand side, improving the effectiveness of monetary policy management.

The interest rate channel in the monetary policy transmission mechanism is the mechanism that conveys the influence of the monetary policy on the economy through the chain reaction between interest rates and prices in the market. Monetary policy through direct or indirect effects of interest rates on investment and spending behavior of entities, thereby affecting aggregate demand and the balance of the economy achieved at the target level. This process of effect shows the effectiveness of the interest rate channel, demonstrating the ability of the central bank to influence and intervene in the money market; the impact and propagation of the effects of short-term interest rates on long-term interest rates; and finally the sensitivity of investment and consumption demand to interest rates. Factors affecting the effect of the central bank's operating interest rate on the banking system's business interest rate are divided into four groups of factors: (i) The group of factors influencing from the market Internationalization includes the exchange rate mechanism pursued by the country and the movement of capital flows; dollarization of the economy; (ii) The group of factors for the quality of the balance sheet of the banking system includes liquidity ratio; asset quality of the bank, ...; (iii) The group of factors about the characteristics of the operating environment of the financial system, including the competitive level of the banking system, the level of separation between parts of the financial system; development of the financial system; the level of intervention by regulators in the financial market; regulatory environment; (iv) Other factors include budget deficit situation; the independence of the central bank and the domination of monetary policy.

In the condition that economic entities can easily access foreign currency sources from outside, the effect of monetary policy through the interest rate channel depends on exchange rate mechanism and level of asset replacement. Domestic finance and foreign financial assets. The floating exchange rate regime in the context of easy access to foreign capital allows the exchange rate to react immediately to changes in interest rates and thereby net exports and imports. With the fixed exchange rate mechanism, monetary policy will be effective if the ability to access capital from abroad is limited (the degree of substitution of domestic financial assets and foreign financial assets is not perfect).

The regulated exchange rate mechanism requires the intervention of the central bank in the foreign exchange market when the exchange rate fluctuates outside the allowed band. The central bank's formal intervention in the foreign exchange market, whether sterilized or non-sterilized intervention takes place when the central bank buys or sells foreign currency, or a reciprocal local currency, to Any influence on the exchange rate or the value of the local currency affects the independence of monetary policy management, and thus affects the effectiveness of the interest rate channel's impact.

The interpretation of the net effect of the Central Bank's interventions is reflected by the IS-LM model with the appearance of the EF-line of points at which the balance of international payments equilibrium corresponds to different values of income and interest.

2. Literature review

Monetary policy is one of the important macroeconomic policies in which the central bank adopts a system of its tools to influence the amount of money supplied (or interest rates) to achieve economic targets. price stabilization, economic growth, employment and other goals.

Yeyati and Sturzenegger (2010) define: "Monetary policy is the process of managing money supply by a monetary authority, often towards a desired interest rate to achieve the goal of stability and economic growth".

Open market operations are activities of the central bank's participation in the open market through the purchase and sale of securities. Through the purchase and sale of valuable papers, the central bank directly affects the available capital of credit institutions, thereby regulating the money supply and indirectly affecting the market interest rates.

This is quite a powerful tool and is used most often by the monetary policy because: (i) the high autonomy of the central bank; (ii) flexibility and accuracy, the central bank can perform large and small transactions depending on the desired intervention scale; (iii) easily reversed if something goes wrong; and (iv) immediate effect when the transaction of the open market operations is performed.

Direct instruments are instruments that directly affect the volume of money in circulation or long and medium term interest rates. Commonly used direct tools are the credit line, the interest rate fixer and the rate fixer. These tools are often used in the case of high inflation, when the indirect tools are ineffective because the money market is not yet developed, or the demand for money is insensitive to the interest rate or when the central bank is not. has the ability to control fluctuations of the available capital of the banking system. In fact, these are administrative and mandatory tools, so the central bank often limits the use of these tools to prevent the market from deviations created by these tools.

In addition to the above basic tools, central banks also use a number of unconventional policy tools mainly to deal with the financial crisis in the past period with the goal of pumping money to deal with Remove high-risk financial assets out of the financial system, maintain market liquidity and stimulate the economy. According to Bernanke & Reinhart (2004), non-traditional policy instruments can be divided into three main groups, including: (i) Assuring investors that future short-term interest rates will be held. at a level lower than their current expectation (commitment effect); (ii) Increase the size of the central bank's asset summary sheet beyond the necessary level to keep the short-term operating interest rate to zero, these measures to increase the banking

system's reserves through open market operations. or to intervene in the foreign exchange market (quantitative easing); (iii) Changes in the supply of valuable papers in the market through changing the composition of the asset summary sheet of the Central Bank (qualitative easing / credit easing).

Many of the measures used by the central banks of developed countries in the past crisis belong to a third group such as currency swap, term deposit for credit institutions (Term Deposit Facility), Term Asset-Backed Securities Loan Facility (TALF), Troubled Asset Relief Program (TARP), a bond swap (Operation Twist) ... However, for developing countries, the use of these non-traditional tools faces some difficulties due to the influence of seven factors including: (i) The market of undeveloped government bonds Development will limit the central bank's ability to buy these types of bonds; (ii) An underdeveloped corporate bond market will limit capital supply to businesses; (iii) The legal restrictions on the purchase of securities and government assets of the Central Bank; (iv) The high degree of economic dollarization limits the central bank's ultimate lender function; (v) Exchange rate anchoring limits flexibility of monetary policy; (vi) The belief in the Central Bank's inadequate anti-inflation may cause the market to see the implementation of the Central Bank's non-traditional tools as leaving the target to curb inflation; and (vii) A currency vulnerable to capital movements (Morgan, Peter J., 2012).

Studies on the impact of operating monetary policy on the ultimate goals often follow one of two trends: (i) structural approach; and (ii) a simplified approach.

In the structured approach, the relationship between the monetary policy's tools and objectives is analyzed based on the construction of models explaining the "transmission channels" from changes in the monetary policy operating dynamics of the Central Bank. (ie changing tools) to the final goals of monetary policy. In contrast, with a reduced approach, only the direct relationship between the two macroscopic variables is concerned without analyzing the effect conduction process. Thus, with the simplified approach, the executive agency of the monetary policy cannot explain why the effect of the monetary policy on the economy differs in different time periods. are executed equally. Therefore, it can be seen that studies on monetary policy transmission mechanism often choose a structural approach, through the concept of impact transmission channels of monetary policy (Mishkin, 2013). Analysis of these transmission channels is used as the basis for evaluating the impact direction, level of impact and factors affecting the effectiveness of operating monetary policy to the objectives of the monetary policy.

The monetary policy effect transmission mechanism describes how changes in money supply or short-term interest rates due to the central bank's administration of the monetary policy affect real economy variables such as output, price and loss. industry (Mishkin, 2013).

The monetary policy transmission channels work through affecting interest rates, asset prices (exchange rates, stock prices, real estate prices, ...) and credit activities of the banking system.

3. Research Methods

Transmission pattern in the long run

The long-term relationship between the executive rate and the money market rate as well as between the money market and retail interest rates is expressed through the OLS regression function using the following equation:

$$Y_t = \alpha + \beta.X_t \quad (1)$$

Inside:

Y_t : money market rate corresponding to x_t being the operating rate (phase1) and retail interest rate corresponding to x_t being the money market rate (phase2). α : Constant

β : Coefficient to measure the long-term transmission level. indicates the long-term changes in the interbank market rate and the deposit and lending interest rates before the change of the operating rate and the respective interbank market rate. The larger, the higher the pass-through between the two interest rate pairs; $\beta < 1$ implies incomplete interest rate pass-through; $\beta = 1$, the most ideal case, ie when the operating rate and the market interest rate change by 1%, the market interest rate and the deposit rate will change accordingly. %, this is a complete interest rate pass-through process; $\beta > 1$ is considered to be an over-transmitting process that occurs rarely in practice (Coricelli, Egert and McDonald, 2006).

Transmission pattern in short and moderately adjusted latency

The transmission level in the short term is measured by the error correction model EMC and the hysteresis variable of interest rate pairs corresponding to the VAR model.

$$\Delta y_t = \mu + \rho(y_{t-1} - \alpha - \beta.x_{t-1}) + \gamma.\Delta x_t + \varepsilon \quad (2)$$

Inside:

ρ measuring the correction rate of the correction error, ρ indicates the adjustment speed of the equilibrium level of y_t .

γ measures short-term direct pass-through, indicates how much interest rate y has adjusted to the change in interest rate x during the same period. When $\gamma = 1$, the transmission is complete and when $\gamma < 1$, the transmission is incomplete.

According to Hendry (1995) we have the MAL average adjustment delay of the complete transmission in the EMC model calculated as follows:

$$MAL = (\gamma - 1) / \rho \quad (3)$$

Thus, the MAL is a weighted average of all lag and measures the response rate of the market interest rate LNH and the deposit rate, the lending rate when the executive rate and the LNH market rate change relative. application. The average adjustment delay (MAL) is the time it takes for the market interest rate of LNH and the deposit rate and lending rate (respectively in phases 1 and 2) to adjust to the long-term equilibrium. The large MAL implies a high rigidity or a slow adjustment in the reaction of the interbank market rate and the deposit rate, loan interest rate when the policy rate and the interbank rate change. In contrast, a small MAL implies the flexibility or quick adjustment of the market interest rate LNH and the deposit rate, lending rate according to the operating rate and the market interest rate LNH (respectively in phase 1 and 2). As mentioned in Chapter 1 of the thesis, many studies show that the short-term adjustment is asymmetric, or in other words, the rate of interest rate adjustment is different when the interest rate is above and below the equilibrium. (Chong, 2005 and Scholnick, 1996).

4. Result

4.1. Overview of operating monetary policy of the State Bank of Vietnam

The 2006-2015 period showed significant changes in the establishment and implementation of the monetary policy regulatory framework of the State Bank, which is evident in the selection of the target system as well as the coordination of tools in operating monetary policy.

The monetary policy target system

The ultimate goal: curbing inflation, stabilizing the macro-economy

Contrary to the thinking of prioritizing economic growth in the previous period, the commitment to maintaining inflation at a low and stable level in both the short and long term is evident in the Law on the State Bank of

2010. In the spirit of paragraph 1, Article 3, Law on State Bank of 2010, the sole objective of monetary policy is to stabilize the value of the currency, indicated by the inflation target: 'The national monetary policy is the monetary decision at the national level of the competent state agency. rights, including to decide on the goal of stabilizing the value of money indicated by the inflation target, the decision to use tools and measures to implement the set target “. However, in reality, the monetary policy objectives of the State Bank of Vietnam have been adjusted flexibly, clearly reflected in the Government's resolutions and instructions issued annually by the State Bank of Vietnam.

Facing high inflation in late 2010 and continuing to increase in the early months of 2011, many important documents were promptly issued by the Party, National Assembly, and the Government such as Resolution No. 59/2011 / QH12, Discussion No. 02 / KL-TW dated March 16, 2011 of the Politburo on the socio-economic situation in 2011, Resolution No. 02 / NQ-CP dated January 9, 2011, and Resolution No. 11 / NQ -CP dated February 24, 2011 with the primary goal of curbing inflation, stabilizing the macro-economy, and ensuring social security. To 2012 and 2013, the goal of curbing inflation, stabilizing the macro-economy and ensuring social security is still prioritized in parallel with the innovation of growth model, economic restructuring in the 2011 period - 2015. During this period, the Government issued Resolution No. 01 / NQ-CP on major solutions to direct and administer the implementation of the socio-economic development plan and the 2012 state budget estimate, Resolution No. 13 / NQ-CP on solving problems, creating favorable conditions for production and business in association with market development support, Resolution No. 01 / NQ-CP on major solutions. direct and administer the implementation of the socio-economic development plan and the State budget estimate in 2013, and the Resolution No. 02 / NQ-CP on a number of solutions to overcome difficulties for production and business. market assistance, bad debt settlement. In 2014 and 2015, the goals of macroeconomic stability, inflation control, reasonable economic growth associated with the innovation of growth model and economic restructuring were further affirmed in Resolution No. 01 / NQ-CP 2014 and Resolution No. 01 / NQ-CP 2015.

Following the above resolutions, the State Bank of Vietnam operates and enforces the monetary policy while ensuring inflation control, supporting production and business activities, and stabilizing exchange rates through many specific orientations. Especially from 2011 up to now, although we have to face with a volatile macroeconomic context and at the same time aim to many different goals, it can be seen that the goal of curbing inflation, stabilizing the macro-economy remains the key role in operating monetary policy of the State Bank of Vietnam. This is clearly shown from the message of the Government to the message of the State Bank of Vietnam from guiding documents to the management of objectives throughout the monetary policy management process.

Table 1: Inflation and Growth: Goals and Performance

Unit:% / year

Year	Inflation rate		Economic growth	
	Target	Real	Target	Real
2006	< GDP	6,6	8	8,17
2007	< GDP	12,63	8,2-8,5	8,48
2008	< GDP	22,97	7	6,23
2009	<15	6,88	6,5	5,32
2010	<7	11,75	7-7,5	6,78
2011	<7	18,52	7-7,6	5,9
2012	<10	6,81	6-6,5	5,03
2013	6-6,5	6,6	5,5	5,42
2014	7	1,84	5,8	5,89
2015	5	0,63	6,2	6,68

The selection of the appropriate end target shows relatively stable results in the economy, inflation is somewhat controlled, economic growth is gradually improving. With the aim of prudently operating the monetary policy in order to stabilize the macro-economy and support the business system to get out of difficult situations, the monetary policy of the State Bank in the 2006-2015 period has contributed to maintaining a certain economic growth momentum in Macro conditions are much volatile. Despite the pressure of credit expansion from many sides to push Vietnam's economy out of the recession, the State Bank persisted in a prudent credit growth orientation to meet the capital needs of the economy according to the principle of ensuring credit quality, limiting capital allocation to discouraging areas is at risk of causing high inflation and unsustainable growth in the future. In addition, the State Bank also created favorable conditions for commercial banks to change their credit structure in the direction of prioritizing focus on the fields of agriculture, rural areas, export production ...; reducing the maximum short-term lending interest rate in VND for five priority sectors; controlling the proportion of outstanding loans for discouraged sectors. As a result, economic growth has not recovered strongly, but has improved gradually over time.

Intermediate target: control the money supply growth and credit growth target, aim to reduce the market interest rate.

The reality of operating monetary policy in recent years shows that the State Bank has chosen the growth rate of the total means of payment and the annual credit growth rate as the intermediate target of the monetary policy. However, at the end of 2011 - now, in addition to the target of money supply growth, the State Bank also focuses on the target of market interest rates.

- **Total means of payment (M2)**

Since 1996, the State Bank of Vietnam has used the indicator "Total means of payment (M2)" as an intermediate target of monetary policy. Based on the projected economic growth rate, the projected inflation rate and the change in the expected monetary turnover at the beginning of the planning period, the State Bank determines the expected money needs of the economy. The change in the money supply must be in line with the change in the demand for money and the change in the basic money block MB is determined by eliminating the effect of expanding deposits through the public commercial banking system formula $MB = MS / m$. Besides, the State Bank also forecasts changes related to the supply source of MB through NFA and NDC indicators on the balance sheet of the State Bank. The above results are compared and balanced to determine the pre-base target value.

- **Credit growth to the economy**

Besides selecting the target of total payment means of M2, credit growth is also an intermediate target in operating monetary policy in Vietnam. This is an important indicator that the State Bank, the Government and ministries are interested in because credit is the main source of capital for development, economic structure renewal, financial strengthening and competitiveness. of the business.

The control of credit growth of the State Bank is done according to the mechanism: Set out a uniform annual oriented credit growth target (a common target) for the whole system (period before 2012) or assign Credit growth targets (separate indicators) for each credit institution are classified into 3 groups starting from 2012 (SBV allocates credit growth to each credit institution according to the following criteria: Quality of liabilities, assets , capital size, governance capacity, risk management, quality of human resources and compliance with regulations Three groups are allocated credit growth at different levels: Group 1 credit growth Credit growth at the maximum rate of 17%; Group 2 has maximum credit growth of 15%; Group 3 has maximum credit growth of 8%, other groups that are restructured cannot have credit growth).

Table 2. Money supply movements and credit growth

Content		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
M2	Target	23-25	20-23	32	18-20	25	15-16	14-16	14-16	16-18	15-20
	Real	33,6	46,1	20,3	29	33,3	12,4	22,4	18,5	17,6	14*
Credit	Target	18-20	17-21	30	30	25	20	15-17	12	12-14	18-20
	Real	25,4	53,9	25,4	37,5	31,2	14,4	8,9	12,5	14,1	18

Source: NHNN

From the table above it can be seen that from 2006 to 2012 there is a big difference between M2, planned credit growth with M2 and realized credit growth, which shows the uncertainty of the target selection. This is an intermediate goal. However, from 2013 up to now, money and credit growth has been low and stable, the difference between plan and implementation has also decreased significantly.

- **Intermediate target is aimed at lowering market interest rates (from 2012 to present)**

The operating mechanism of monetary policy has undergone a strong change in the direction of step by step shifting from volume regulation to interest rate management. From 2012 up to now, in addition to choosing the intermediate target of M2 money supply and credit growth, the State Bank has also focused mainly on the target of lowering market interest rates to focus on solving difficulties for production and business. business under the guidelines of the Government. To achieve this goal, the State Bank has drastically implemented and synchronously used many tools such as lending and deposit ceiling interest rates, refinancing rates, rediscounting, open market operations, and reserve reserve. forced, implemented a series of credit programs with preferential interest rates ... As a result, by the end of 2015, the State Bank has reduced the interest rates by 9 times with a total reduction of about 8.5% / year; the ceiling lending interest rate in VND for priority areas is about 2-3% / year lower than normal lending interest rate and reduced from 15% to 7% / year; regulates and adjusts to reduce the ceiling deposit interest rate in VND from 14% / year to 5.5% / year. For foreign currencies, the State Bank of Vietnam has 6 times reduced the USD deposit interest rate, bringing the USD deposit interest rate of organizations and individuals down to the uniform interest rate of 0% / year. In addition, in 2015, the State Bank lowered the lending interest rates for some credit programs in sectors and fields to about 6.5-6.6% / year; continue to request credit institutions to review and reduce lending interest rates of old loans to the current lending interest rates. Lending interest rates in 2015 decreased by about 0.3-0.5% / year compared to the end of 2014, down about 50% compared to the end of 2011; outstanding loans with interest rates above 13% / year to 6.4%, sharply down from 10.1% at the end of 2014 and compared with the rate of more than 30% at the end of June 2013.

With the level and frequency of interest rate reduction as above, the deposit and lending interest rates have been significantly reduced, helping businesses reduce borrowing costs. Lending interest rates for the economy decreased rapidly. Thanks to monitoring and resolutely handling violations of the deposit interest rate ceiling, along with measures to support liquidity for weak banks, some credit institutions have to borrow from each other at high interest rates. The interbank market has been somewhat overcome.

The target of market interest rates is appropriate in the condition of controlling money supply and credit that do not achieve the set results (reflected in the large difference between the target and the performance) and given see effectiveness in controlling inflation, stabilizing the macro-economy in the period 2012-2015.

Operational objectives: Control the base money amount MB

In practice, since 1995, the State Bank has mainly aimed at regulating the amount of additional MB's base money approved annually by the Government for the purposes of buying foreign currencies, refinancing

commercial banks and other another purpose. Theoretically, this is justified when the intermediate target chosen is M2 money supply and credit growth.

The expected annual increase in the MB base money volume is calculated based on the growth rate of the total means of payment M2, consistent with expected GDP growth, inflation expected and money generation coefficient. expected. Then, the amount of base money increased annually and submitted to the Prime Minister for approval. The State Bank will use monetary policy tools to control and manage the amount of base money increased within this approved scope.

In addition to the control and regulation of the basic money supply of MB, since 2012, when there was a shift of the intermediate target to lower market interest rates, the State Bank also had a strong impact on the inter-monetary market interest Through the use of open market operations tools, the relationship between the interbank interest rates and the lending interest rates and deposit interest rates of commercial banks has also become clearer. This shift in governance is in line with the international trend.

Year	MB	(ΔMB)	(%ΔMB)
2006	230,756,242	56,250,940	32.23%
2007	315,711,820	84,955,578	36.82%
2008	378,989,071	63,277,251	20.04%
2009	422,253,124	43,264,053	11.42%
2010	439,621,685	17,368,561	4.11%
2011	522,809,225	83,187,540	18.92%
2012	655,511,076	132,701,851	25.38%
2013	695,652,931	40,141,855	6.12%
2014	825,687,422	130,034,491	18.69%
2015	985,307,417	159,619,995	19.33%

Operating system of monetary policy instruments

In the period 2006 up to now, the world economy has had many complicated changes while domestic macroeconomic instabilities began to show. In this situation, the Government has had guidelines, orientations and points of view to direct the monetary policy, especially to adjust policy objectives. With the continuous change of the monetary policy management orientation, the State Bank proactively used monetary policy tools in a relatively flexible and flexible manner, combining the impact of direct monetary policy tools (assigning targets to increase credit growth, direct interest rate adjustments, lending interest rates for priority sectors, ...) and indirect (compulsory reserves, refinancing policy tools, open market operations).

Table 3 Decomposition of variance of GDP and CPI

Variance Decomposition of GDP:

Period	S.E.	GDP	DCPI	DRLR	DM2	RIBR
1	0.016177	100.0000	0.000000	0.000000	0.000000	0.000000
2	0.016921	95.06724	0.261635	1.562422	1.191260	1.917446
3	0.020809	74.55102	17.49902	2.209718	3.239915	2.500322
4	0.022063	70.35213	21.14652	2.455363	3.810290	2.235693
5	0.022162	69.82519	21.14136	2.435863	3.776304	2.821274
6	0.024151	66.63296	24.63978	2.510181	3.786557	2.430520
7	0.026138	64.39721	27.64177	2.649848	3.235187	2.075984
8	0.026304	64.62555	27.46781	2.629364	3.224809	2.052460
9	0.026836	63.30752	28.10088	3.024982	3.454743	2.111880
10	0.027835	61.82694	27.73909	4.571053	3.251935	2.610982

Variance Decomposition of DCPI:

Period	S.E.	GDP	DCPI	DRLR	DM2	RIBR
1	2.120886	24.72984	75.27016	0.000000	0.000000	0.000000
2	4.055938	33.48048	65.95591	0.202334	0.344099	0.017182
3	5.542624	39.11294	60.50054	0.115414	0.207543	0.063565
4	6.766314	43.84950	55.37517	0.086843	0.340979	0.347505
5	7.331830	47.68092	51.15270	0.212975	0.343422	0.609982
6	7.509547	49.30692	49.12520	0.445541	0.347185	0.775148
7	7.667647	48.73503	47.12129	2.283460	0.369256	1.490965
8	8.075478	44.52437	43.10273	7.693563	0.768634	3.910699
9	8.535058	40.01126	40.05557	11.64890	1.263977	7.020286
10	8.847634	37.27873	38.92245	13.29419	1.625757	8.878873

Table 4: Results of the model regression

Dependent variable: DLR	
Variable name	Coefficient
DLR(-1)	0.545050***
DDRATE	0.478328***
DDOLLARIZATION	-0.014352*
DEXF	0.000353***
DNPL	-0.044709***
DFDEV	0.005063*
DFDOM	-0.045098**
DGBUDGET	-0.000169
DDOLLARIZATION*DRATE	-0.427183**
DEXF*DRATE	0.003991*
DNPL *DRATE	-0.561572***
DFDEV*DRATE	0.272590***
DFDOM*DRATE	-0.339108*
DGBUDGET*DRATE	-0.020859

Firstly, the interaction of the independent variables in the model with the SBV's operating interest rate is in accordance with the theoretical and expected basis. However, the budget deficit variable as well as the interaction of the budget deficit variable are not statistically significant. This can be explained by the limitations of the data collection and the quarterly data does not reflect the true nature of the budget deficit.

Second, the interaction between the dollarization of the economy and the interest rate shows that high dollarization tends to reduce interest rate spillovers by a statistically significant 5%.

Third, the flexibility of the exchange rate has a positive impact on the effectiveness of the interest rate channel but is very small and with low statistical significance (10%).

5. Conclusion

Analysis shows that the monetary policy is transmitted through the interest rate channel, including the following steps: (i) When the State Bank implements tightening monetary policy, increases the rediscount and refinancing rate, the interbank interest rate will increase and thereby increasing lending interest rates, mobilizing interest rates of commercial banks; Increasing lending rates have the effect of reducing GDP and inflation, but this impact is very weak and delayed. The pass-through effect from the operating rate to the interbank market rate and from the interbank market rate to the deposit and lending interest rates of the commercial banking system is not complete. In particular, the transmission from interbank interest rates to deposit and lending rates of the commercial banking system is very weak, not as expected by the State Bank. The rate of interest rate adjustment

is also relatively slow, it takes generally 3 months for all types of interest rates to adjust to the long-term balance. The main causes of the limitations in effect through interest rates stem from: (i) the dollarization of the economy and the lack of flexibility in the exchange rate management mechanism; (ii) low asset quality of the banking system; (iii) the concentration and underdevelopment of the financial system, poor quality of the legal system; (iv) government administrative intervention and poor SBV independence; and (v) the excessive domination of monetary policy and budget deficit.

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