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# A Comparative Study on China and Brazil's Monetary Policy

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## Abstract

Monetary policy is an important tool used by monetary authorities in various countries to maintain financial stability. Due to the difference of monetary policy between China and Brazil, a comparative study is conducive to better linking theory to practice and providing references for decision-making.

## Keywords

China, Brazil, monetary policy.

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## 1. Introduction

From a global perspective, monetary policy is an important tool used by monetary authorities in various countries to maintain financial stability. For a long time, the study of monetary policy has always been a hot field in the academic world. Since 1984, China has implemented monetary policy to control the money supply, stabilize prices and drive economic growth. Although the staged economic effects have been achieved, there are still some difficult issues that need to be resolved. Brazil is considered as an emerging country and its 2017 GDP ranks ninth in the world's largest economy. After the 2008 financial crisis, Brazil adopted measures such as tax cuts, adjustment of credit, and reduction of interest rates to achieve macro-control, and achieved certain results. In recent years, China has adopted the same monetary policy such as "cut interest rates and reserve requirement ratios". Therefore, a comparative study of China and Brazil's monetary policy is conducive to better linking theory to practice and making references for decision-making.

## 2. Literal Review

### 2.1 Definition of Monetary Policy

Monetary policy can be described from the broad and narrow perspectives. The broad monetary policy includes all policies and measures related to the currency; the narrow monetary policy is the policies and measures that can only affect the money supply or influence other financial conditions. The narrow monetary policy is discussed in this article. The monetary policy involves three aspects: First, credit policy. It refers to the policy of granting loans to financial institutions formulated by the fiscal and foreign investment policies for the purpose of improving the credit structure and optimizing the economic structure. Second, foreign exchange policy. It is the policy on foreign exchange management to maintain stable exchange rate and prices for the purpose of balancing international income. Third, interest rate policy. It refers to the policy of interest rates formulated for the purpose of economic conditions and policies within a certain period of time.

The monetary policy is ultimately to achieve the four goals of stabilizing prices, guaranteeing full employment, promoting economic growth and balancing international income, of which the primary goal is to stabilize prices. Stable prices can safeguard the value of currency. When the prices rise, the currency will depreciate. On the contrary, when the prices fall, the currency will appreciate. Full employment can be used to measure a country's resources availability. Generally speaking, economic

growth is held back by higher unemployment rate. It is more likely to achieve economic growth with lower unemployment rate. Both trade surplus and deficit have a negative impact on international income, which requires to keep a stable balance of international payments.

## **2.2 Monetary Policy Tools**

Monetary Policy falls into three categories: First, general monetary policy tools include reserve against deposit system, rediscount policy and open market operation. Second, innovation tools include some tools with high flexibility and substantial measure, such as temporary liquidity facilities, pledged supplementary lending and short-term liquidity operation. Third, supplementary tools include direct credit control tools (such as credit assignment, liquidity ratio, special loans) and indirect credit control tools which control credit through “window guidance”.

## **2.3 The Effect of Monetary Policy on Economy**

Controlling the interest rates and credit supply through central bank, monetary policy is beneficial to establish a balance between total demand and total supply of society in the way of money supply adjustment. Among them, the active monetary policy is put forward to stimulate aggregate demand. Under such monetary policy, central bank will increase the money supply and reduce the interest rate, thus making credit easier. As an expansionary monetary policy, active monetary policy applies to society where total demand and production capacity are relatively low. The other is a negative monetary policy which would be adopted during a serve inflation. When inflation is high, it will reduce the total demand and raise interest rates by decreasing money supply, making credit less accessible.

# **3. A Comparative Study of China and Brazil's Monetary Policy**

## **3.1 Review of China's Monetary Policy**

### **3.1.1 Open Market Operation**

Open market operation contains two parts: RMB open market operation and foreign exchange open market operation. The foreign exchange open market operation started in March 1994, followed by the appearance of the RMB open market operation in May 1998. The two kinds of open market operations have become one of the main tools when they came into people's daily life. As a banking business, the service scope of the primary dealer system has now expanded to financial institutions other than commercial banks since its establishment. In 2006 and 2007, 48 banks and security companies were elected as primary dealers in each year, of which 4 commercial banks were pushed out of the ranking, while other 4 new commercial banks were added into the top 48 of the ranking. In January 2013, SLO, a short-term liquidity operations, was created by central bank based-on currency regulation, supplementing the open market operation with excessive capital supply demand in sudden and temporary. In January 2017, the central bank conducted Temporary Liquidity Facilities (TLF) to achieve a temporary liquidity support for commercial banks.

### **3.1.2 Reserve against Deposit System**

Established in 1984, reserve against deposit system was officially carried out in 1987 which commercial banks began to pay reserve requirements and excess reserves in this year. From January 2007 to June 2018, deposit reserve ratio of China has been adjusted a total of 41 times, with the latest required reserve ratio reduction on July 5, 2018. Using targeted cuts to required reserve ratios, required reserve ratios are lowered by 0.5 percentage point in state-owned commercial banks, joint-stock commercial banks, the Postal Savings Bank, the City Commercial Bank, the Rural Commercial Bank, and the Foreign Banks.

### **3.1.3 Interest Rate Policy**

With the positive effect on the absorption of public deposits, the increase of interest rate is helpful to curb liquidity, slow down investment, and stabilize prices, thus controlling inflation, while the decline of interest rate is conducive to stimulating the growth of loans and investment, which in turn drives

the economy. For now, the latest decline adjustment central bank carried out on interest rate started in October 2015, with 0.25 percentage point decreasing amplitude on one-year, one-to-five-year and more than five-year loan interest rate, which respectively are 4.35%, 4.75%, 4.9%. At present, China has no longer implemented the floating ceiling of deposit interest rate. The marketization of interest rate is beneficial to promote the positive role of the market in resource allocation.

#### 3.1.4 Other Monetary Policy Tools

Promoted to the whole country in February 2015, Standing Lending Facility (SLF) was put forward to address the normal liquidity demands of small and medium-sized financial institutions, of which, on March 16, 2017, the 0/N interest rate was raised by 20BP, the 1W interest rate was increased by 10BP, and the 1M interest rate, 0BP. Through invitation for bids, Medium-term Lending Facility (MFL) was created to provide medium-term base currencies for commercial and policy banks,

In April 2014, it is the first time that mortgage replenishment loans came into public eye. Since then, the central bank have delivered loan monthly with main purpose to launch large-scale long-term financing to the key area and the weak part of economic development.

### 3.2 Review of Brazil's Monetary Policy

#### 3.2.1 Short-term Inflation Control

The Brazilian government has interest and mandatory monetary instruments and fiscal instruments to control aggregate demand, thereby controlling inflation levels.

Brazil, after the financial crisis, sought a monetary policy named inflation objective system for adapting the financial situation at that time. The inflation objective system is a monetary policy adopted by Brazil on June 21, 1999, which established the guidelines that the President of the Central Bank of Brazil must follow when the inflation rate at the end of each calendar year exceeds the tolerance interval.

2016-2019 current strategic criterion was enacted in October 2015. Its content includes: To ensure the stability of monetary purchasing power and keep a stable and efficient financial system. The autonomous and excellent performance of central bank is increasingly being recognized as a key to maintain economic and financial stability.

The upper limit inflation target set by Brazil's central bank is 4.5%. In 2007, the inflation rate reached 2.95%, with a 1.55 percentage points reduction compared to the above upper limit inflation target. The decreasing amplitude of 1.55% slightly lower than the 1.5 percentage points tolerance interval limit requirement.

On August 2016, the inflation rate of household food reached 16.79, while it dropped into 9.36% at the end of this year. In 2017, the inflation rate raised 0.49 percentage point. At the end of the first quarter of 2018, the inflation will reach 3.2%, higher than the prescribed minimum of 2018 (3.0%). The annual rate of return is 4.2%, decreasing 0.3 percentage point. In addition, the inflation rate also lower than 4.5%. Supported by monetary stimulus measures, the upward path of inflation and the ease monetary process in 2018 will continue.

#### 3.2.2 Long-term Inflation Control

In the long run, the best remedy for inflation is to expand production capacity, increase product supply and lower prices. Hyperinflation occurs when inflation becomes very high and loses control. In addition to weakening consumer purchasing power, Universal and sustained rise in prices often leads to a sharp decline in the currency and a currency devaluation. In Brazil, hyperinflation occurred between the 1980s and the 1990s, when the inflation rate exceeded 80% per month. Brazil has several inflation indexes. Different indexes use different income brackets, different regions, different projects and even different periods in the calculations, which helps to make the country's inflation measurement safer. The inflation rate fell sharply in 2017 and the economic recovery was higher than expected, compared with the expectations at the beginning of the year. With the reduction in inflation, the purchasing power of the population has increased, promoting the general rebound of consumption

and economic activity with other factors. Due to the deflation of household food, IPCA inflation was slightly below the lower limit of the tolerance interval during the year.

### **3.3 Comparison of Difficulties in China and Brazil's Monetary Policy**

It can be seen from the data that Brazil's monetary policy has been adopting easing policies in recent years. The inflation rate of Brazil was basically within the inflation target set by the Central Bank. However, some problems have emerged since 2014. First of all, in terms of foreign trade, the global commodity prices have fallen, with the single export structure of Brazil, leading to a sharp decline in exports. Second, global liquidity volatility has increased. In 2015, the Brazilian real value depreciated by 40%, resulting in the currency continued to be unstable. Finally, inflation has caused the economy of Brazil to experience negative growth, limiting a large amount of private investment and reducing the consumption of the Brazilian people. Fundamentally, this is the dilemma caused by the inconsistency of the short-term goals of Brazil's monetary policy. Brazil's monetary instruments are single but at the same time meet different requirements. During the policy implementation, it is conceivable that the effect will not be too significant.

In contrast, China has adopted multi-currency tools to adjust its economic structure and achieve price stability. The problems that need to be considered by China government is that the limitation for China's monetary policy workers. For example, the weak effect of open market business on commercial banks and the little notice effect. Besides, the transaction depends on the will of both parties; the effect of the reserve system on the currency has a slower effect and a longer time lag, which is not conducive to fair competition. Therefore, it is necessary to adjust flexible monetary policy for adopting the changes in the market environment.

## **4. Application suggestions for monetary policies**

### **4.1 Enhance the monetary policy force**

#### **4.1.1 Adjust the central bank's asset and liability structure**

The following measures can be taken to adjust the central bank's asset and liability structure: First, the central bank's operation of RMB funds will be transparent, and RMB assets will be clearly listed. Second, remove some foreign exchange assets and separate the excess foreign exchange assets when keeping sufficient foreign exchange reserves thus expanding the channels for the use of foreign exchange assets and enhancing the central bank's regulation of the financial market. Third, gradually increase the proportion of issued currency, weaken the endogeneity by the money supply, and strengthen the autonomy of monetary policy.

#### **4.1.2 Further promote the marketization of deposit and loan interest rates**

It is only with the smooth running of interest rate policy and the effective market interest rate that the potential of the regulation of price-based monetary policy can be fully released and thus being spread to the financial system and the real economy. To further promote the marketization of deposit and loan interest rates, the following measures can be taken: First, make reasonable pricing, guide financial institutions to strengthen risk prevention awareness in ways that building an overall stronger market benchmark interest rate system. Second, allow the financial institutions to pricing in macro-prudential manners meaning that making their deposit and loan interest rates adjustable. Third, develop the corporate bond market and provide alternatives to deposits and loans that are higher than the deposit rate but lower than the loan interest rate. Fourth, improve the central bank's credit information system, so that financial institutions can more clearly understand their customers and reduce their risks. Fifth, adopt positive incentive measures to facilitate the transformation and upgrading of financial institutions.

#### **4.1.3 Keep the smooth running of foreign exchange market**

It is necessary to intervene in the market when the exchange rate fluctuates wildly, and when it is stable, make the exchange rate is driven by the market supply and demand relationship. Efforts are

made to prevent speculators from accurately predicting the current situation avoiding the unnecessary risks from speculation.

#### 4.1.4 Improve statistical analysis capacity

The huge impact of monetary policy on the economy requires accurate data for support to build a rational and viable policy model. That is how we can respond to changes in the economic development by using all tools with great flexibility.

### 4.2 Improve supporting measures of monetary policy

#### 4.2.1 Further promote the reform of the foreign management system

The stability of the financial world calls for effective cross-border capital supervision and reasonable foreign exchange outflows. Only in this way can we better harmonize the relations between trade parties and prevent short-term capital speculation. A combination of policies are essential to achieve this goal: First, relax control of foreign investors for injecting funds into the domestic capital market step by step and prevent capital market turmoil caused by hedge funds. Whether it is a short-term or medium-term investment, it should be implemented in accordance with the relevant rules when withdrawing investment. Second, as for the supervision, the examination and approval system need to turn to market-driven regulation, reducing rent-seeking behavior and timely monitoring information, and thus making risks controllable. Third, improve the laws and regulations related to foreign exchange management, do a good job of communication and coordination of various functional departments, so that all the departments can make joint efforts for cooperation.

#### 4.2.2 Optimize foreign exchange reserve management

To optimize the management of foreign exchange reserves, we can adopt the following methods: First, diversify foreign exchange reserves. Disperse the official foreign exchange reserves and reduce the proportion of US dollar assets. Second, expand the channels for the use of foreign exchange reserves. For example, we can pour foreign exchange reserve assets into the construction of infrastructure for developing countries or we can put it into acquiring strategic resource and assets. Third, set up an investment company to manage excess foreign exchange reserves and provides increased investment income to fiscal revenue. Providing financing opportunities for foreign direct investors can establish a market of international board, allowing foreign-invested enterprises to be listed in China speeding up the healthy development of the overall domestic financial system.

### 4.3 Optimize the monetary policy target system

#### 4.3.1 Actively and steadily guard against financial risks

Allow the inter-bank business return to the original regulatory track of managing the liquidity, carry out all-round, full-process, full-scale quantitative supervision of all online and offline businesses, resolutely crack down on and clean up shadow banking, and improve the approval and filing procedures for financial products. Restrict the leverage ratio, strengthen on-site and off-site inspections, ban the fund pool business, severely crack down on illegal financial activities such as illegal fund-raising, and curb campus usury. Explore ways to integrate the financial activities such as Internet finance into the system of financial risk supervision and prevention, and achieve macro-prudential management.

#### 4.3.2 Further highlight the target of price stability

Increase the proportion of direct financing, promote the internationalization of the RMB, enhance the transparency of monetary policy and the predictability of monetary policy, improve the operability of monetary policy, and establish a price target system with interest rates as the core.

#### 4.3.3 Improve financial infrastructure

Establish a dynamic statistical monitoring system, and integrate all activities of all financial institutions into the comprehensive statistical system. Timely monitor full process and all contents of the financial activities and issues alarm for abnormality. At the same time, establish a sound

accountability system for financial supervision, conduct business supervision amenable to process, and perform accountability according to law.

#### **4.4 Strengthen macro regulatory policies**

We should focus on two aspects to strengthen macro regulatory policies. On the one hand, it is essential to make good coordination between prudential supervision and monetary goals. The determination of the monetary policy objectives shall be promptly responded to the changing process of the macroeconomic environment and adjusted in time according to the actual situation, and then carry out the operational setting and tool selection according to the final monetary policy objectives. Since the economic landscape sometimes changes rapidly, it is sometimes difficult to keep the consistency between the ultimate goal and prudential supervision. In practice, it may achieve certain results in the short term, but sometimes it will sacrifice some of the goals. It means that the long term effect cannot be promised. Therefore, the relationship between the ultimate goal and prudential supervision should be coordinated to promote monetary policy to play its due role in a timely and effective manner. On the other hand, strengthen the monitoring of systemic risks. At present, both the central bank and financial institutions still lack of sufficient awareness of systemic risks, and it is easy to ignore their risks. However, when systemic risks occur, the entire financial system will be affected indicating that a cycle control mechanism will be established as soon as possible to guard against the systemic risks in advance.

### **5. Conclusion**

Comparing the monetary policies adopted by China and Brazil, the fact is that the single monetary policy tools and the various monetary policy tools have different effects. The factors affecting monetary policy are various, especially in today's complex and changing international economic environment and situation. The implementation of monetary policy should be fully considered in connection with the actual situation.

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