Research of Mundell Impossible Trinity under the Background of Raising Global Interest Rate

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Abstract: Many countries and regions have implemented the negative interest rate from the financial crisis in 2008,and then these countries raised interest rate rapidly. The Mundell Impossible Trinity has a strong applicability in the environment of positive interest rate. This paper studies the current situation of the Mundell Trinity in the era of changing time from negative interest rate back to the positive interest rate to provide some references for the global economic researchers.

1. Introduction

The Mundell Impossible Trinity refers to the difficulties of the policy goal choice of the economic society and the finance. It is difficult to obtain the goals of the stability of exchange rate, the flow of capital and the independence of monetary policy at the same time. In terms of monetary policy, the free flow of capital, exchange rate stability and monetary policy independence three will not be possible to have it all. That is to say, a country can only have two of them, and cannot have three. If a country wants to allow capital flows and requires independent monetary policy, it is difficult to keep the exchange rate sTable. If the exchange rate is sTable and capital flows, it is necessary to give up the independent monetary policy. Professor Krugman of the Massachusetts Institute of Technology combined with the empirical analysis of the Asian financial crisis and put forward the Mundell Impossible Trinity based on the Fleming Mundell Model in 1999.

The establishment of must Mundell Impossible Trinity has two most important conditions. First, monetary policy must be independent of fiscal policy, that is, the two must be mutually independent monetary policy tools. As such, the two monetary policy tools can play different functions respectively. If fiscal policy determines the monetary policy or subject to monetary policy, the two essentially become a policy tool, unable to independently achieve different policy objectives, the macroeconomic policy mix is the castles in the air. Mundell proposed the idea of central bank independence and authority should be given to achieve price stability. Many years later, the central bank independent thought has been widely accepted around the world." Second, the country must have developed capital markets and money markets, domestic individuals and businesses to be able to carry out international lending and exchange rate risk hedging. If the country does not have developed capital market and currency market, domestic enterprises cannot effectively hedge the exchange rate risk, then, international capital flows on currency demand and currency supply, asset prices will cause a huge impact, which greatly weakened the effect of the macroscopic policy, the basic conclusion of Mundell fry the model is no longer set up. Most developing countries do not have developed capital markets and money markets, which cannot simply copy the Mundell Impossible Trinity to analyze China's macroeconomic policy.

2. Global Negative Interest Rate and Corresponding Polices

2.1 Current Situation.

After the global financial crisis in 2008, the main developed countries adjusted the policy rate to close to zero level. Since 2016, accompanied by the introduction of the Bank of Japan's negative interest rate policy, there have been five major central banks to implement this unconventional monetary policy in the world. And the Fed has started the process of raising interest rates by the end

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of 2015. This shows that, with the differentiation of the recovery process in developed economies, the divergence of its monetary policy has increased. This will bring multiple challenges to China's monetary policy, exchange rate stability and so on. Interest rates have multiple meanings, the most fundamental is the major central bank to determine the basis of interest rates and we can call these policy interest rates. On this basis, a variety of financial products on the market will be a result of the risk premium and other factors such as interbank lending rates, bond interest rates, deposit and loan interest rates and other market interest rates. We refer to negative interest rates in general, which means policy interest rates or market interest rates are negative. The actual interest rate is the interest rate adjusted after the inflation rate based on the nominal interest rate, when inflation is more obvious when the environment changes, the real interest rate volatility will be relatively large, at this time, even if the nominal interest rate is positive, negative real interest rates of the probability of large. The people's Bank of Chinese raised the RMB benchmark deposit and lending rates, but because of the high rate of inflation, negative interest rates again. Especially in 2008 after the start of the economic crisis, the people's Bank of Chinese continues to cut deposit and lending rates to stimulate the economy. The one-year deposit rate substantially decreased from 4.14% to 2.25% and the inflation rate of 5.9%. The negative interest rate reached -3.65%. Denmark also joined the ranks of the negative interest rate policy, but as of now, the policy of negative interest rates or small things. The European Central Bank in excess of overnight deposits negative interest rates make the situation changes, which means that the central bank in the United System of the euro zone into a negative interest rate space, the negative interest rate policy by the country to expand into country. The Bank of Japan announced the implementation of negative interest rates on central bank excess reserves, Japan's negative interest rates means that negative interest rates from Europe and Asia, has become an increasingly common phenomenon.

2.2 Corresponding Polices.

We take the European zone and Japan for example, the negative interest rate policy corresponding to the commercial banks at the central bank. This part of the commercial banks is asset, which means that commercial bank in this part of the assets of the central bank’s rate of return under the negative interest rate policy is negative. Look at the end of the debt, commercial bank liabilities side mainly for deposits, commercial banks have lower absorption deposit interest rate theory, practice is positive, otherwise it will cause deposits big move, residents tend to hold more money, it will reduce bank credit for amplification. The commercial bank debt costs with the negative interest rate policy for the central bank's asset return is negative, so the money is out of the central bank system, the need for new delivery channels. In theory, the negative interest rate for the residents of the two directions of the effect. Lower savings and lower relative cost of consumption make it more likely that residents will be more likely to increase consumption. Low interest rates reduce the income of savings funds, the relative reduction in the income of residents, but also tend to reduce expenditure. In negative interest rate environment, the income effect may be more than the substitution effect, if we consider the background of deflation, the impact of negative interest rates on consumer spending is more obvious. Deflation is expected, the savings of the actual income does not actually decline too much, this time the role of alternative play a smaller role, in extreme cases, the real interest rate is raising, instead of negative effects. In addition, the expected deflation will make the future of goods cheaper, in the cross period of consumption ratio, the residents are more inclined to save to increase future consumption. In the context of monetary policy, the euro area inflation is relatively low, partly due to the decline in oil prices, which may re anchor the central bank's inflation expectations target. In addition, in the United States, low oil prices and the conduction to low inflation, may cause the fed to delay the pace of monetary policy normalization, so as to affect the economy in such a way. In the context of weak global economic growth and zero or negative interest rate monetary policy, oil prices fell on the world's major economies fiscal policy and monetary policy is a challenge. While the decline in oil prices for oil importing countries, especially have a positive impact on families and businesses, and can be realized in the medium term; but oil prices on oil exporters' negative effects, especially in the fiscal revenue and expenditure and the exchange rate has an immediate effect on energy dependent export countries, more will be magnified.

3. Mundell Impossible Trinity under the Background of raising Global Interest Rate

3.1 Stability of Exchange Rate.

First, from the point of view of the stability of exchange rate, keeping the exchange rate sTable is an important indicator of the economic level of any country. But the exchange rate in a certain range of memory in the volatility and exchange rate stability is not contradictory, is allowed to. The magnitude of exchange rate volatility is a reflection of the choice of a country's exchange rate regime. Thus, in our country, in the next period of time, to maintain the relative stability of the RMB exchange rate and the RMB exchange rate in a certain range of memory in the volatility does not contradict each other. And the sensitivity of the RMB exchange rate volatility will also be gradually reduced with the continuous development of China's economy. Since 2013, the foreign exchange channel base money appear the trend of slowing down, the people's Bank of innovative monetary policy tools to increase the base money channels. However, due to the duration of the loan problem, causing the central bank cannot provide long-term basic currency to the community. Therefore, in order to further meet the needs of the economic development of the currency, continue to further improve the long-term basis for monetary delivery channels. In the short term, you can actively explore the positive exploration of unconventional policy tools to increase long-term base money supply channels. In the medium term, should be further modified to improve the relevant laws and regulations, in order to re loan or re discount the long-term base currency. In the long run, we should learn from the experience of developed countries to explore the basis of open market operations monetary.

3.2 Flow of Capital.

With the increasing frequency of capital, the economic globalization has become an irresistible trend. And the gradual opening of China's capital controls will also become an ineviTable trend with the increasing of the market economy system. According to the relevant academic research, a large number of international hot money flowing not possible due to implementation of China's capital controls prevented. Thus, from a long-term and rational point of view, capital controls are not the best choice for our country. Therefore, whether it is from the subjective, to seek our country's economic development, or from the objective, to adapt to the requirements of the world economic integration, will promote the free flow of capital to become the necessary choice of china. The negative interest rate will take a long time to play a role in the case of Japan in 1990s. Secondly, many of the negative effects mentioned above may play a role in the short term. After the global financial crisis, the effectiveness of monetary policy is becoming weaker and weaker. The main reason is that it is difficult for the fund to enter the real economy. So the focus of the work of the central bank should be to try to guide the funds into the real economy, stimulating measures should be built on the basis of practical increase in domestic demand. In the long run, economic growth depends on structural adjustment and technological progress. The global financial crisis has reminded us that relying too much on the virtual economy will make the economy hollow, and the foundation of economic development will no longer be firm. The real economy in order to have a healthy development, it must have a sustained positive rate of return on investment, there are emerging industries leading emerging and expanding the scale of consumption, otherwise the real problem. Chinese government selected the relatively sTable exchange rate regime in the Mundell Impossible Trinity.

Independence of Monetary Policy. The independence of monetary policy should be said, is our country at any time should adhere to the goal. In fact, the objective facts that are still economic powers determine that China cannot implement the monetary bureau system. At the same time, maintaining the country's monetary sovereignty, maintaining the independence of monetary policy has already been decided by China's current political system. Thus, the goal of the independence of monetary policy should be the ineviTable choice for China to implement the Mundell Impossible Trinity. They will continue to flow to the financial markets for high risk returns. Although the problem has already been very clear, but many countries have not played a substantial progress in structural adjustment, the reasons are many aspects of the. In the long run, the country still has to make great efforts to promote structural reform and technological innovation, so that the supply and demand structure is more reasonable, more sustainable economic growth. Fiscal policy is often more effective than monetary policy in the face of deflation and structural adjustment. Now many countries are putting off reform, because it is difficult; many countries rely on by other countries to shoulder the burden of fiscal expansion, because of their government debt burden is very heavy. This requires the immediate and long-term interests, local interests and the overall interests of trade-offs. At present, China's fiscal policy there is a certain space. It should be good to make use of, so as to better play the role of structural adjustment. According to the Mundell Impossible Trinity and China's social and economic status, at present, China's choice is the independence of monetary policy, exchange rate stability and the implementation of capital control economic policy combination. The stability of RMB exchange rate has played a positive role in the economic construction and the financial crisis in the period of reform and opening up. Therefore, in a fairly long period of time, the RMB exchange rate has always maintained a relatively sTable state, even after several large and small adjustments, but also has never been fully floating state.

4. Conclusion

The Mundell Trinity theory shows that the goals of monetary policy independence, exchange rate stability and free movement of capital are impossible to have all. We can only have the two goals of the three. Under the background of the global negative interest rate, the current relevant choices of our country are basically in line with the current economic reality. However, these choices also have some contradictions and conflicts with the Mundell Trinity. It needs further research and policy adjustment in the future.

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