The Impact of the Continued U.S. Interest Rate Increase and China's Response— An Analysis Based on the Case of Typical Developing Countries

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Abstract. The Fed's announcement of an increase in the federal funds rate has caused a global trend of interest rate hikes, resulting in the return of the U.S. dollar and global currency depreciation, making it the most important economic phenomenon in 2022. The subject of this paper is to analyze the economic impact of the Fed's interest rate hikes on developing countries, and this paper uses data from government portals in several developing countries to further study the response of each country and to identify possible solutions for developing countries to deal with the problem of interest rate hikes. The study finds that the Fed's interest rate hike has caused capital outflows, exchange rate depreciation, and increased financial risks, which are limited in scale, and the status of international settlement of RMB's currencies still needs to be improved. In order to support the stability and healthy development of China's financial system and currency in light of the current complex international situation, it is important to increase the implementation of prudent monetary policy, maintain independence and autonomy, strengthen macro-prudential regulation, stabilize the RMB exchange rate, and implement proactive fiscal policy.

Keywords: Interest rate hikes; developing countries; response measures.

1. Introduction

The Federal Reserve will complete seven interest rate hikes in 2022, and the spillover effect will hit the world. The impact of this interest rate hike on China's A-shares and the exchange rate will be limited. However, it will have a catastrophic impact on developing countries that are deeply dependent on the U.S. dollar and have relatively fragile economic structures. The debt risk of emerging economies and developing countries will increase, and the global economic growth rate will decrease, which in turn will trigger a significant increase in global debt, and the world's major creditors will face economic downside risks due to debt defaults. In summary, the Fed's decision to raise interest rates will have many adverse effects on the economies of developing countries hit by COVID-19.

In this period of Fed interest rate hikes and global monetary tightening policy implementation, the issue of how to reduce economic spillover as well as ensure the independence of China's monetary policy is imminent [1]. At this stage, the only research in this field is on monetary policy and debt, and most of the research in the field focuses on the research and analysis of China's response measures [2]. This paper takes Sri Lanka and Vietnam as a comparison while studying China's response measures. It is of practical importance to analyze the strategies of the two countries in response to the Fed's interest rate hike, which helps to clarify the advantages of the Chinese economy in response to the Fed's interest rate hike. The main content of this paper is to analyze the impact of interest rate hikes in major capitalist countries, elaborate on the response measures of developing countries, reform the past and make recommendations, and draw conclusions and outlook. The study of developing countries' measures to cope with the Fed's interest rate hike will help to condense solutions that China can learn from or avoid, clarify the current international economic situation facing China,

and better cope with external shocks and maintain stable economic growth in the contemporary international economic and financial turmoil.

2. Research Content

2.1. Overview of US Interest Rate Hikes

Since COVID-19, unstable global supply chains have severely hampered the world economic recovery [3]. The Russia-Ukraine conflict has led to a further tightening of the global financial environment, while the U.S. has experienced the worst of it due to higher-than-potential economic growth, faster domestic consumption recovery than production recovery, generally lower unemployment, supply and demand imbalances from the COVID-19, as well as higher energy prices and broader price pressure inflation. According to the U.S. Department of Labor, the U.S. CPI index surged, rising from 7.5% in January 2022 to 8.5% in March [4]. The increase in inflation has added additional burdens on U.S. households, disproportionately affecting low- and middle-income U.S. households.

To control inflation, the Federal Reserve began a frenzy of interest rate hikes in March 2022 until January 2023, when it completed eight rate hikes totalling 450 basis points. March 2022 U.S. interest rate meeting indicated that the Fed may raise rates by 175 basis points, but the reason for the discrepancy with the factual data is that economic growth slowed down in 2022 and inflation remained unabated. The Federal Reserve is under pressure to keep raising interest rates. The continuous interest rate hike makes the dollar increase in value and attracts global capital flow to the U.S., but it also brings various negative effects for other countries around the world.

Since the breakup of the Bretton Woods system, the U.S. dollar has further replaced gold as the world's main trade, settlement and reserve currency [1]. The fall in Japanese government bond futures triggered the meltdown mechanism of the Tokyo Stock Exchange, which led Japan to buy back its government bonds, but it was undoubtedly a "time for space" approach, i.e., to buy back government bonds to support fiscal stimulus, thus reducing the impact of the external economy on its own country, but the effect was minimal.

Taking recent studies as an example, researchers investigate the impact of Fed interest rate hikes on the economies of G20 countries and finds, using a panel VAR (PVAR) model, that Fed interest rate hikes lead to higher interest rates, lower currency values, increased financial market volatility, inhibit real economic growth, and reduce individual monetary policy independence in G20 countries [5]. Some scholar’s use the Fleming (M-F) model to analyze the transmission mechanism of the Fed's interest rate hike and finds that the spillover effect of the Fed's monetary policy on global economies is particularly pronounced for the U.S. dollar as the world's trade and reserve currency [5]. Using a panel Logit model, there is a specific study focusing on two factors, the Fed's interest rate hike and the financial cycle during the financial crisis, and the results showed that the implementation of the Fed's interest rate hike measures would increase the likelihood of financial crises in the world [5].

2.2. Analysis of Developing Countries' Response

Relevant research uses the DSGE model to study the impact of U.S. interest rate hikes on China's economy, having a conclusion that U.S. interest rate hikes will lead to a decline in output, a decline in capital input, a decline in net exports, and a decline in employment in China in the short term, causing negative shocks in many ways [5]. A reasonable response to the U.S. interest rate hike becomes an important part of maintaining China's economic stability and development.

At the same time, it is noted that the development of Vietnam and Sri Lanka in 2022 is typical among developing countries and in the world: Vietnam's GDP exceeded US$400 billion for the first time in 2022, reaching US$409 billion, with a per capita GDP of about US$4,110 and an annual economic growth rate of 8.02%, the largest increase in 12 years. The proportion of exports of manufacturing products continues to increase, accounting for 86%, and the development momentum is strong. Sri Lanka's debt-ridden economy, on the other hand, saw its foreign exchange reserves fall

to $1 billion in March 2022, the national currency, the rupee, depreciate sharply, and Sri Lanka declared "national bankruptcy" in July 2022[6]. The two countries are representative of their recent performance and are both export processing developing countries.

Given that China is the world's largest exporter and its manufacturing sector accounts for a large share, this paper intends to select Vietnam and Sri Lanka, which have certain similarities with China's national conditions and more extreme performance, as comparative cases to analyze the measures taken by the three countries in response to the U.S. interest rate hike, extract useful experiences and summarize the existing problems in order to provide help for China's response.

2.2.1 China

Facing the profit-seeking nature of capital, the Fed's interest rate hike will certainly affect the flow of the capital market. In the face of the gradual flow of capital to the more profitable United States, results in the domestic stock and bond fund markets have been hit to varying degrees, while the outflow of domestic capital will also reduce China's foreign exchange reserves at the same time [5].

The increase in interest on savings in the United States not only raises the willingness of the nation to save but also reduces consumption, resulting in lower demand for imports in the country. Although it can ease the pressure on the national economy, this will cause a reduction in trade imports and exports from abroad, thus affecting trade economic activities and worsening trade relations.

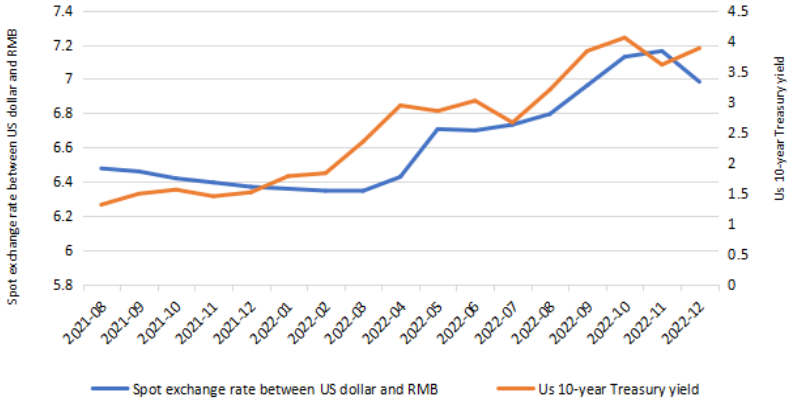


Fig. 1 Comparison of US Dollar to RMB Exchange Rate and US Treasury Yield [5]

As can be seen from the analysis in Figure 1, the dollar to yuan foreign exchange rate and its rate and the U.S. 10-year Treasury bond yield is roughly the same trend, compared to August 2021 to March 2022 can be clearly found after March 2022, that is, after the announcement of the U.S. interest rate hike, the dollar to yuan exchange rate volatility rose year-on-year and the volatility is obvious[7]. In May 2022, for example, when the Federal Reserve announced the massive start of a 50 basis point rate hike, the USD to RMB exchange rate increased significantly. Since the Fed announced the rate hike, the yield on U.S. 10-year bonds has risen sharply, and the U.S. dollar has increased against the RMB at the same frequency.

Since the Fed's interest rate hike will generate greater risks to China's financial market, the domestic financial system should always be alert to a series of adverse reactions arising from the Fed's interest rate hike. It is the gradual improvement of economic and financial integration, in the face of multiple interest rate hikes by the Federal Reserve, foreign investors lack confidence in the Chinese market economy, resulting in reduced investment, and domestic capital outflows thus stagnating economic growth and further exacerbating deflation. It also makes the domestic capital liquidity worse, causing financial risks to intensify, and banks and other types of financial institutions increased bad debts and other unfavorable situations.

China’s response to the Federal Reserve interest rate hike has also taken corresponding measures, such as the RMB flexible exchange rate plus time monitoring to observe the movement of capital flow operations, which are to strengthen the interest rate, but also to ensure the stable development of the RMB exchange rate, and for those short-term capital operations also play a role of time monitoring.

In the face of the Fed's political move to raise interest rates, China must not only remain vigilant but also actively implement countermeasures to promote the smooth passage of the economy. In this regard, China has adopted supply-side structural reform, inputting more power into the real economy, and also increasing technical adjustment and investment for poor areas, so as to enhance the domestic economic growth of domestic demand. Since the Fed's interest rate hike will inevitably affect China's imports and exports, and the devaluation of the RMB will increase the burden on exporters, China has enacted economic policies to protect exporters and promote their healthy development. At the same time to respond to the "One Belt, One Road" national strategy development, China also increases import and export trade, so as to drive better economic growth.

2.2.2 Vietnam

As China's comprehensive national power continues to rise and the demographic dividend recedes, its labor cost advantage declines and the world sees the fourth wave of international industrial transfer, shifting some labor-intensive production such as textiles and furniture manufacturing to Southeast Asian countries represented by Vietnam where labor is plentiful yet inexpensive.

In this context, Vietnam's economy has grown significantly, with foreign exchange reserves of US$107.4 billion at the end of 2021, GDP growth of 6.4% in the first half of 2022, and a public debt-to-GDP ratio of less than 50% [8]. However, in the face of the Fed's continuous interest rate hikes and domestic inflationary pressures, Vietnam's stock index fell by 34% and the exchange rate depreciated by more than 9% for the year 2022 [8].

The Fed's continuous interest rate hikes have reduced the number of dollars circulating in the market and the dollar has continued to rise, attracting global capital flows, including those of Vietnam, to the United States. Vietnam has consumed 20% of its foreign exchange reserves in 2022 to stabilize the exchange rate in order to stop further depreciation of the exchange rate exacerbating capital outflows due to the Fed's rate hikes [9].

Moreover, the central bank of Vietnam said on October 24, 2022, that it would raise the policy interest rate by 100 basis points, including the refinancing rate from 5% to 6% and the discount rate from 3.5% to 4.5%, in order to contain inflation risks, maintain stability and protect the banking system [9]. In addition, the Vietnamese authorities will also raise the ceiling of VND deposit rate of commercial banks by 50 to 100 basis points according to the maturity period. This is the second interest rate hike by Vietnam's central bank in October 2022.

Vietnam's central bank stated that it expects to raise interest rates this year and in 2023 as global inflation remains high and the Federal Reserve has recently raised rates five times. This, combined with a stronger dollar, puts pressure on Vietnam's interest rates and exchange rates. Vietnam's central bank has indicated that it is closely monitoring its own and overseas markets to manage and use monetary instruments accordingly and in a timely manner. This includes intervention in the currency and foreign exchange markets to meet the liquidity needs of financial institutions.

In addition, on October 17, 2022, the central bank of Vietnam announced the expansion of the trading band of the VND to 5% against the USD from the previous 3% [9]. Analysis suggests that the widening of the trading band indicates that Vietnam is willing to tolerate further weakening of the VND.

2.2.3 Sri Lanka

Sri Lanka's economy has grown rapidly over the last century and has the world's busiest maritime trade, known as the "Pearl of the Indian Ocean". Its economy is more dependent on international markets than other countries. Sri Lanka imports 40% of its food from Ukraine and it is heavily dependent on Russia and Iran for its energy supply. COVID-19 has led to global inflation, and Sri Lanka has suffered greatly. Inflation hit a record high of 11.1% in November 2021[10].

Fragile economic fundamentals, an over-dependent external trade structure, and the impact of the New Crown epidemic have made Sri Lanka economic struggle. 2022 has seen that due to partisan disputes, terrorist attacks, tourism damage, currency credibility damage, colonial economic legacy, civil war, and development model, Sri Lanka's economic sustainability is fragile and may collapse.

Prior to the Russo-Ukrainian war and the Fed rate hike, Sri Lanka was in a deepening debt crisis due to misguided economic policies that led to a reduction in food production, with rice production having been cut by 50%. Inflation and the Fed interest rate hike became the trigger that led to Sri Lanka's bankruptcy. In December 2022, before the Fed's interest rate hike, Sri Lanka's foreign debt was as high as 6.9 billion U.S. dollars and the official foreign exchange reserves were 2.36 billion U.S. dollars [11].

In order to cope with foreign debt and inflation, in April, Sri Lanka's central bank raised interest rates by 700 points, far exceeding market expectations, with the standing loan facility rate raised to 14.5% and the standing deposit facility rate raised to 13.5% [12]. As of the Fed's third-rate hike, Sri Lanka's foreign debt rose to 51 billion U.S. dollars and available foreign exchange reserves fell to 50 million U.S. dollars [12]. Inflation in Sri Lanka reached 54.6% as of June, with food inflation reaching 80.1% [12]. The Fed's interest rate hike exacerbated Sri Lanka's inflation and capital outflow, and the cost of debt repayment further increased, leading to more poverty in Sri Lanka and further devaluation of the currency. While Sri Lanka was in political turmoil, the President and Prime Minister both resigned, the society was in chaos, the government was restructuring, fuel shortages caused riots, and there was no time to deal with the interest rate hike. On July 6, 2022, under the impact of the Russian-Ukrainian war and the Fed's interest rate hike, Sri Lanka declared complete bankruptcy due to "insolvency" and suspended all debt payments. On July 7, Sri Lanka's central bank raised interest rates by 100 basis points to combat inflation, pay off debt, and support the Sri Lankan currency, with a standing deposit facility rate of 14.5% and a standing loan facility rate of 15.5% [13].

2.2.4 Summary of experience and policy recommendation

It can be seen that China has responded comprehensively and purposefully to the possible impact of the Fed's interest rate hike: it has taken "stability is our priority " as its economic goal, implemented a proactive fiscal policy, vigorously developed the economy's internal circulation system, strengthened fiscal allocations and promoted the formation of special economic industries around the country to promote stable economic growth, strengthened the RMB exchange rate flexibility and restrictions on capital flows, reduced its holdings of US debt and had a large amount of US dollars in hand to maintain the stability of the external market. Also, the central bank lowered interest rates, activated the market and the real economy to attract capital, reduced capital outflows and reduced the impact of the Fed's interest rate hike.

Vietnam has achieved some success in coping with the Fed's interest rate hike, but there are certain problems. In 2022, Vietnam stabilized its exchange rate by depleting 20% of its foreign exchange reserves, which deserves recognition. However, its practice of following the Fed's interest rate hike, to a certain extent, can alleviate the pressure of capital outflow. Following the interest rate hike also loses the independence of the country's monetary policy, which will inevitably raise the cost of financing and increase the country's debt situation, which is not conducive to the country's long-term development.

Sri Lanka, despite its high debt, high economic dependence on other countries, domestic turmoil, tourism and other unfavorable factors, still chose to follow the interest rate hike, and aggressive interest rate hike of 700 points [14], so that it is already a high-debt country more deeply in the debt crisis, laying a huge hidden danger for it to fall into national bankruptcy.

2.2.5 Policy recommendations for China

The following recommendations can be summarized from the responses of China and Vietnam and Sri Lanka.

The implementation of prudent monetary policy to be increased and independence and autonomy to be maintained are the first recommendation. Noting the interest rate hikes in Vietnam and Sri Lanka and their effects, it is believed that, while interest rate hikes can lead to a short-term rise in the national currency, reduce the money supply to reduce inflation and attract foreign investment, the negative impact on domestic demand and the real economy should not be underestimated. In addition, China's

inflation is currently at a relatively moderate level, China should avoid blindly following the Fed to raise interest rates and maintain the independence and autonomy of monetary policy [15].

Also, it is suggested that Macro-prudential regulation should be strengthened and the RMB exchange rate to be stabilized. China must pay close attention to the international financial market, adapt upward the macro-prudential adjustment parameters of cross-border financing at an appropriate time, raise the upper limit of the risk-weighted balance of cross-border financing, increase the amount of cross-border capital inflow, increase the space for enterprises and financial institutions to arrange their assets and liabilities, which are conducive to increasing the scale of financing from abroad [15].

3. Conclusion

This study found that the Fed's interest rate hikes had a large negative impact on both Sri Lanka and Vietnam, and also had a certain negative impact on China, once again confirming the objective fact that the Fed's interest rate hike had a huge impact on the global economy. In addition, in response, Vietnam and Sri Lanka have followed the interest rate hike, especially the Sri Lankan central bank's aggressive rate hike of up to 700 points. Taking into account the development situation of their countries, it is easy to see that following the interest rate hike in response to the Fed's interest rate hike can certainly alleviate the pressure of capital outflow to a certain extent, but inevitably raise the cost of domestic financing, which will lay a hidden danger for the long-term development of high debt countries such as Sri Lanka. Therefore, this paper proposes three measures for China to cope with the Fed's interest rate hike: increasing the implementation of prudent monetary policy, maintaining independence and autonomy, strengthening macro-prudential regulation, stabilizing the RMB exchange rate, and implementing proactive fiscal policy, in order to empower the stability and healthy development of China's financial system and currency under the current complex international situation.

This paper fills the gap of domestic studies that mostly use model empirical analysis without case studies, focuses on China's response without paying attention to other developing countries, and focuses on the Fed's interest rate hike in 2022, providing help for China to better cope with external shocks and maintain economic stability and growth in the contemporary international economic and financial turmoil, and providing new research ideas for other researchers to study the Fed's interest rate hike. Future research is suggested to pay close attention to the world situation, actively search for data on countries' responses to the Fed's interest rate hike and its effects, and further analyze the countries with good responses in order to provide references for China's mitigation.

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