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The Economic and Financial Impacts of Fed's Rate Hikes: Emerging Economy, Financial and Commodity Markets

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Abstract: With the fed rate hikes recently, there are many economic and financial impacts caused by it around the world. This article mainly studies the economic and financial impacts of the Fed's interest rate hike on the world, and give some relevant policies and suggestions. The Fed's interest rate hike has a huge impact on all economies around the world, especially emerging economies. At the same time, it has had a great impact on the global foreign exchange market, commodity market, and capital market. Since the Federal Reserve is in the process of raising interest rates unprecedentedly in history, the impact of this rate hike on the world is also different and deeper than before. By researching on the economic and financial impacts of the Fed's interest rate hike, this article aims to understand the Fed's interest rate hike behavior, predict the global economic situation to a certain extent and help to make better decision.

Keywords: economy, impacts, emerging economies, market

1. Introduction

With the increasingly inflation rate, the fed start the monetary tightening process. In 2022, the red rises interest rate 7 times in a row, which is different from the style of monetary policy before. Also, this aggressive process of increasing interest rate is rare in the history of the fed. The author dedicates to explore the impacts on global financial market caused by hikes of fed rate, based on this, the author will also give some suggestions on how to face with this considerable event.

Since the 1980s, the Federal Reserve has experienced six rounds of interest rate hike cycles. Significant differences occurred between the rhythm, duration and intensity of previous interest rate hikes.

Firstly, the period of raising interest rates lasts from 1 to 3 years. The cycle which interest rate hikes started in 1999 was the shortest, lasting only 12 months; the cycle of rate hikes started in 2015 was the longest, lasting 37 months. Secondly, the accumulative rate hikes of the six rounds of interest rate hike cycles ranged from 1.75% to 4.25%. The accumulative rate hikes in the rate hike cycle started in 1999 were the smallest at 1.75%; 4.25%. Thirdly, the average monthly interest rate hikes for the six rounds of interest rate hike cycles ranged from 0.06% to 0.23%. The rate hike cycle started in 2015 had the slowest pace of rate hikes, with an average monthly rate hike of only 0.06%; the rate hike cycle that started in 1994 had the fastest pace of rate hikes, with an average monthly rate hike of 0.23%. Fourthly, the first rate's hikes are usually small. The two first rate hikes in 1983 and 1987 were only 0.125%, and the other four first rate hikes were all 0.25% [1].

The background of the Fed's previous interest rate hikes is quite different. Firstly, when the economy is rising, in order to prevent the economy from overheating, the Fed may choose to raise interest rates. In the interest rate hike-cycle which started in March 1983 and January 1987, the Federal Reserve chose to raise interest rates when the economy was accelerating upward. The interest rate hike cycle that started in February 1994 was at the tail end of the U.S. economic boom. Secondly, when the economy is experiencing downward acceleration, if inflation rises rapidly, the Fed may also choose to raise interest rates. In the interest rate hike cycles started in June 1999 and June 2004, the Fed chose to raise interest rates during the economic downturn and inflation up phase. Thirdly, after the international financial crisis in 2008, the US economy showed new features of "low growth and low inflation". During the interest rate hike cycle that started in December 2015, although the U.S. economy was in a period of expansion, the center of economic growth was significantly lower than the pre-financial crisis levels [1].

In the first two months of 2022, U.S. inflation rose to highs of 7.5% and 7.9%, and the Federal Reserve has started raising interest rates by 25 basis points since March. In March and April, U.S. inflation rose rapidly to 8.5% and 8.3%, and the Federal Reserve raised interest rates to 50 basis points in May. However, inflation in May and June continued to rise on its own, and the CPI directly soared to 8.6% and 9.1%. Not only has consumer prices risen, but the producer price index has risen faster, and the core CPI has remained above 6%. In order to curb high inflation, the Federal Reserve raised interest rates by 75 basis points each time in four consecutive interest rate meetings since June, setting off the most aggressive rate hike wave in more than 40 years. In addition, the pace of shrinking the balance sheet has not stopped [2].

This article mainly focuses on the impacts caused by fed rate hikes in economies especially emerging economies, as well as the impacts on exchange markets, capital markets, commodity markets. The author aims to find the effects of red rate hikes, analyzing the links between economic trends and this behavior. Also, by researching on fed rate hikes, the author aims to predict the economic trend and give some efficient suggestions about it.

The following parts of this paper are arranged as follows: Section 2 introduces the impact on the emerging economies; Section 3 analyzes economy, interest rate and exchange market; Section 4 focuses on the change in global commodity prices; Section 5 introduces the effects on global capital market; Section 6 gives some policies on how to deal with fed rate hikes; Section 7 is the conclusion of this article.

2. The Impact on Emerging Economy

Emerging economies have attracted a large number of international capitals inflowed in the early stages, so when the Fed responds to high inflation, starting to raise interest rates, these economies are most likely to be affected. And once a financial crisis breaks out, it will have a relatively greater impact on the international market [3].

It can be seen from Figure 1 that by July 22, Egypt (20.61%) and Turkey (19.41%) have experienced relatively serious currency depreciation; in addition, the currencies of Colombia (16.03%) and Chile (14.73%) have also depreciated by about 15%. During the same period, the U.S. dollar index rose by 7.64% [4].

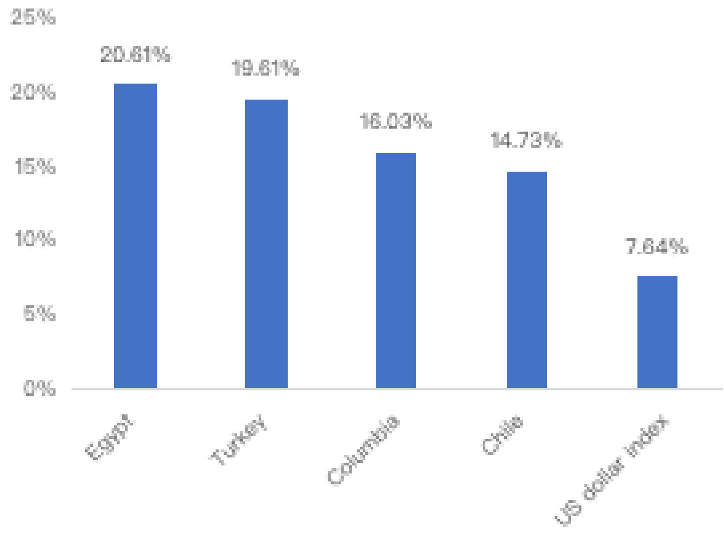

Figure 1: Changes in the exchange rate of the US dollar against the currencies of some emerging economies after fed rates hike.

Data source: Wind

Photo credit: Original

3. Economy, Interest Rate and Exchange Market

In the first quarter of 2022, the quarter-on-quarter annualized rate of U.S. GDP dropped to -1.4%. There are many signs that the U.S. economic growth is slowing down. At the same time, the U.S. inflation center will be significantly higher than the pre-epidemic level. As supply bottlenecks tend to ease, U.S. inflation is expected to rise and fall, but rising rents and wages will support inflation at a higher level for a longer period of time. Overall, the U.S. economic growth rate will decline in 2022, and inflation will remain relatively high. The Fed may continue to raise interest rates during the economic downturn under pressure from inflation [1].

In order to make up the gap of interest rate between the local currency and US dollar, new upsurge of interest rate hike occurs between global. For example, Hong Kong, China, which implements the linked exchange rate system. The interest rate rose from 0.75% at the beginning of 2022 to 4.75% at the end of the year, and there is a further upward trend. According to information from the Global Interest Rate Network, as of the end of November, more than 20 central banks have followed the Fed to raise interest rates, including the European Central Bank, the Bank of England, and the South African Central Bank.

Fed rate increases frequently and substantially, which caused large amount of capital reflow to the US. The appreciation of US dollar occurred, which drives the depreciation of the currencies of other economy.

Large-scale overseas capital has poured into the U.S. treasury bond market, which has stimulated global demand for the dollar. The value of the dollar has become stronger and the exchange rate has continued to strengthen. Driven by interest rate hike expectations and several interest rate hikes after March, the yields of U.S. Treasury bonds have risen significantly. The yields of 1-year and 10-year U.S. Treasury bonds have risen from 0.40% and 1.63% at the beginning of the year to September 27. 3.97% and 4.16%, the highest since the 2008 financial crisis [5].

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Figure 2: Japanese Yen to US dollar exchange rate.
Data source: FRED
Photo credit: Original

According to data from the U.S. Treasury Department, as of the end of the third quarter of 2022, the scale of international capital inflows in the United States has reached 1.18 trillion U.S. dollars. In addition, the U.S. dollar index has an obvious upward trend, climbing from 95.6536 at the beginning of the year to 103.4895 at the end of the year, with an appreciation rate as high as 8.2%.

While the yields of U.S. treasury bonds are rising rapidly, the yields of treasury bonds of major global economies such as China, Japan, the euro zone, and the United Kingdom have experienced a decline or a relatively low rise due to the impact of their own epidemics, economic operations, and geopolitical conflicts. interest rate spreads widened significantly [5]. For instance, because of the influence of the Bank of Japan's "negative interest rate and qualitative easy policy", the interest rate gap between the United States and Japan continued to expand, and the Japanese yen continued to depreciate. According to Figure 2, compared with the beginning of 2022, on December 30, 2022, the exchange rate of the yen against the US dollar fell by as much as 14.3%.

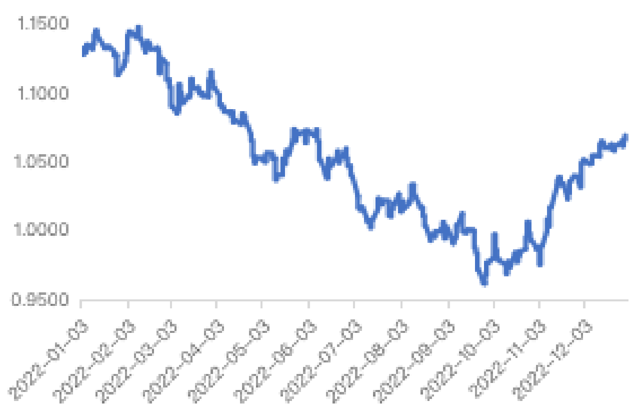

Figure 3: U.S. Dollars to Euro spot exchange rate.
Data source: FRED
Photo credit: Original

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In addition, the Europe is suffering from energy crisis, political conflicts and so on. After the fed rates hikes, euro and pound kept depreciating, with the depreciation rate reaching 15.35% and 12.1% respectively, as it can be seen from Figure 3 and Figure 4.

Figure 4: USD to UK pound exchange rate.
Data source: FRED
Photo credit: Original

4. Global Commodity Prices

There are four main ways for the Federal Reserve to influences the price of commodity by raising the interest rates. Firstly, after the Federal Reserve raised interest rates, the value of the U.S. dollar has continued to increase and remain high. Because most commodities in the world are exchanged in U.S. dollars, the prices of commodities of the same value have shown a rapid and sharp decline. Secondly, the Federal Reserve interest rate hike has led to tightening of global liquidity, especially the contraction of US dollar liquidity in the offshore market, which will greatly weaken financial speculation in the commodity market, thereby driving prices to gradually return to an equilibrium level determined by fundamental factors. Thirdly, the continued rise of interest rates will exacerbate the risk of economic recession, inhibiting the consumption and investment of enterprises and residents, and the negative pressure on the demand side will further depress commodity prices. Fourthly, the Fed started this round of interest rate hike cycle to deal with the continuous upward inflation pressure. Against this background, the public's inflation expectations are relatively stable, and the commodity premium caused by hyperinflation has disappeared [6]. Facts show that after the Federal Reserve raised interest rates, global commodity prices showed a gradual correction trend according to Figure5. Among them, the price of international crude oil dropped obviously. By December 30, 2022, the price of British Brent crude oil futures fell by 20.6%. The prices of black commodities generally went down. By of December 30, 2022, the iron ore price has dropped by 12.0% from the beginning of the year, which is a drop of more than 10%. In addition, since the Federal Reserve raised interest rates sharply in March 2022, the prices of non-ferrous metal commodities such as copper, aluminum and tin have fallen sharply, decreasing by 17.4%, 25.1% and 49.1% respectively by the end of December. As the Fed continues to raise interest rates, the global commodity bull market has come to an end.

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Figure 5: Producer price Index by commodity.
Data source: FRED
Photo credit: Original

5. The Global Capital Market

As the United States occupies an important position in the international monetary system, the policy adjustment of its monetary authority affects the global economic and financial system. The Federal Reserve's aggressive interest rate hike policy has had a strong spillover impact on the global financial market, prompting transnational capital to return to the United States and increasing the debt burden of emerging economies. With the continuous deepening of the interest rate hike process, the interest rate gap between countries around the world and the United States continues to widen [7]. Driven by the pursuit of profit, international capital will gather in the US financial market on a large scale, which will lead to a tightening of liquidity on a global scale. With the deteriorating international financial environment, superimposed economic and geopolitical risks and energy crises, other countries, especially emerging economies with weaker economic fundamentals, are facing insufficient liquidity. The continued appreciation of the US dollar has led to rising financing costs for these countries, increasing price pressure and living costs, and increasing debt burdens, which are likely to trigger sovereign debt risks [8]. In the first half of 2022, the total debt of more than 30 emerging countries has reached 99 trillion US dollars, which is 2.5 times their GDP. In addition, the Fed's interest rate hike has tightened global liquidity, and stock prices are facing continuous downward pressure.

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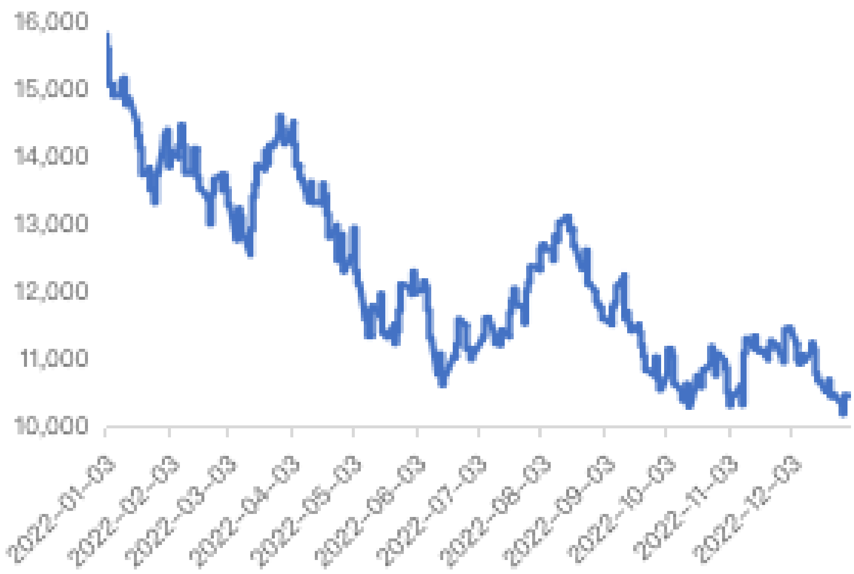

Figure 6: Nasdaq index.
Data source: FRED
Photo credit: Original

From the beginning of 2022 to November 10, according to Figure 6, Figure 7 and Figure 8, the Nasdaq Index, Dow Jones Index and S&P 500 Index fell by 33.9%, 9.4% and 20% respectively.

Figure 7: Dow Jones industrial average.
Data source: FRED
Photo credit: Original

The above three types of indexes all fell by more than 1%, of which the Nasdaq index fell as much as 3.36%.

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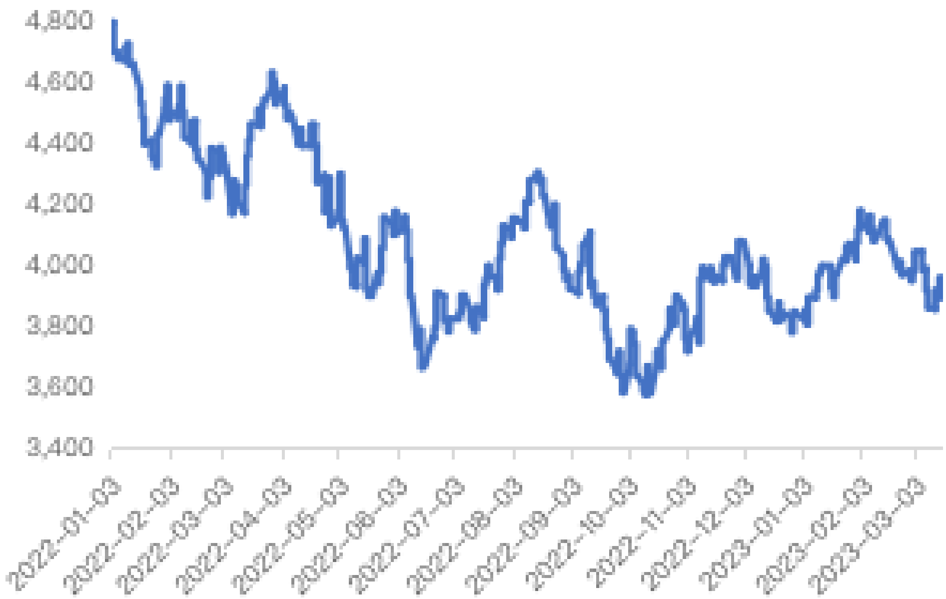

Figure 8: S&P 500 index.
Data source: FRED
Photo credit: Original

6. Suggestions

Firstly, pay attention to the latest trends in US economic operations and monetary policy adjustments, strengthen the tracking and monitoring of the US financial market and international financial markets, and cross-border capital flows, and improve the early warning capabilities for cross-border capital outflow risks. The second is to strengthen macro-prudential supervision. In order to avoid systemic financial risks in an environment of economic fluctuations, emerging economies need to strengthen macro-prudential supervision and build a sound and unified regulatory framework [9].

The third is to strengthen the international coordination of monetary policy, unite emerging market countries to urge developed countries to increase the transparency of monetary policy exit decision-making information, and reduce the impact of policy spillover effects on other countries. The fourth is to maintain a moderate and reasonable liquidity environment, maintain stable fluctuations in market interest rates, strengthen communication with the market, guide and manage expectations; appropriately use tools such as the foreign exchange deposit reserve ratio of financial institutions to adjust foreign exchange liquidity, and hedge the impact of external environments on the domestic market Impact [10]. Fifthly, according to the macroeconomic situation and the balance of payments, adjust the macro-prudential adjustment parameters of financial institutions and enterprises in cross-border financing in a timely manner, guide financial institutions and enterprises to adjust and optimize the structure of foreign exchange assets and liabilities, orderly reduce US dollar debts, and rationally use foreign exchange market tools to avoid Exchange rate fluctuation risk. The sixth is to strengthen inter-cyclical and counter-cyclical adjustments, and appropriately prioritize policy efforts to promote the continuous recovery of consumption, steadily expand investment, and effectively leverage the role of domestic demand in stimulating economic growth.

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7. Conclusion

Recently, in order to stimulate the economic growth, the Federal Reserve has started raising interest rates again and by a large margin, which has had a huge impact on the world. The impact on the global emerging economies, the global foreign exchange market, commodity market, and capital market are the four main parts of the author's analysis. In the foreign exchange market, the currencies of economies, especially emerging economies, depreciated sharply. In commodity markets, global commodity prices retreated. In the capital market, a strong spillover effect occurred. The interest rate gap between countries around the world and the United States has widened, and the international financial environment has deteriorated.

Leaders should pay attention to the trend of the Fed raising interest rates and increase vigilance against cross-border capital flows. For emerging economies, it is necessary to strengthen macro-regulation. Leaders should adjust according to the economic situation, guiding enterprises to optimize the structure of foreign exchange assets and liabilities, reducing US dollar debts, and actively avoiding risks.

For investors, the Fed's interest rate hike has caused interest rates to rise, and the cost of borrowing from banks has risen, so investment needs to be cautious. Higher market interest rates can have a negative impact on the stock market. When the Fed raises interest rates and makes it more expensive to borrow money, the cost of doing business goes up for companies. Over time, higher costs and less business can mean lower revenues and earnings for public companies, potentially affecting their growth rates and stock value. Therefore, you need to be cautious when investing in stocks.

References

[1] Z Yang, L Xiao, (2022) The background and influence of Fed's interest rate hike. China Finance, No.977(11):68-69.

[2] Y Liu, (2021) Beware of the negative spillover effects of the US monetary policy shift. China Financier, (05):98-99.

[3] S Edwards, (2012) The Federal Reserve, the Emerging Markets, and Capital Controls: A High-Frequency Empirical Investigation. Journal of Money, Credit and Banking, 44.

[4] B Wen, X Li, (2022) Will the Fed's interest rate hike trigger financial crisis. China Foreign Exchange, No.453(15):35-39.

[5] X Peng, J Bi, (2022) Fed's aggressive interest rate hike and its spillover effect on China's bond market. Bonds, No.126(12):12-16.

[6] X Sun, X Lu, (2017) Study on Equilibrium Adjustment and Spillover effect of RMB Foreign Exchange Market under the background of Federal Reserve's monetary Policy Neutrality. World Economic Research, No.275(01):41-59+136.

[7] M Funke, C Shu, X Cheng, (2015) Assessing the CNH–CNY pricing differential: Role of fundamentals, contagion and policy. Journal of International Money and Finance, 59(DEC.):245-262.

[8] J Han, F Meng, (2020) Federal Reserve non-linear policy spillover effect and simulation of China's monetary policy choice. International Finance Research, No.401(09):3-13.

[9] J Wang, (2022) The impact of US Federal Reserve Rate Hike on World Economy. People's Forum, No.748(21):90-93.

[10] D Hao, B Wang, L Li, Federal Reserve Policy changes, international capital flows and macroeconomic fluctuations. Finance Research, No.481(07):38-56.