

The Monetary Market Uncertainty, Reasons and Consequence of Financial Market

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Abstract: The previous Federal Reserve rate hikes have had an important impact on the global financial economy. In this paper, on the overview of the fed rate cycle and the related theory and literature review, by combing the fed in 2022 start rate cycle of high inflation and huge debt deficit pressure province scene and process, analyzes the influence of the fed rate of the world economic development, international trade, monetary policy, financial market stability, especially the fed started in 2022 rate cycle on the stock market, foreign exchange market. Epidemic of the haze to the U. S. economy, rising unemployment, rising prices, and caused inflation, the fed to curb inflation, adopt tightening monetary policy —— start interest rates cycle, this paper thinks the fed this move also to the global stock market and foreign exchange market caused irreversible negative impact. Based on this, this article suggests that investors act cautiously in uncertain financial environments.

Keywords: the federal reserve, rate hike cycle, international financial risks, monetary policy, financial market stability

1. Introduction

The Fed's previous rate hike cycles have had an important impact on the global economy and finance. After the Federal Reserve started its cycle of raising interest rates in the late 1970s, it triggered a global economic crisis in Latin America. From February 1994 to February 1995, the Federal Reserve raised interest rates by seven consecutive 300 basis points to raise the interest rate from 3% to 6% [1], which triggered the financial crisis in Mexico and the financial crisis in Southeast Asian countries. From June 1999 to May 2000, the Federal Reserve raised interest rates for six consecutive times by 175 basis points, raising interest rates from 4.75% to 6.5%, leading to the collapse of the Internet bubble and the recession in Brazil. From June 2004 to July 2006, the Federal Reserve raised interest rates for 17 consecutive times by 425 basis points, raising the interest rate from 1% to 5.25%, which triggered the subprime mortgage crisis and the international financial crisis in 2008. Nine 225 basis point rate hikes between December 2015 and December 2018 raised interest rates from 0% to 2.25% [2].

After the outbreak of COVID-19 in 2019, in response to the economic recession caused by the epidemic, the Federal Reserve kept the benchmark interest rate at 0-0.25% and wantonly relaxed it, and the broad money supply (M_2) increased rapidly. The broad US currency M_2 grew by 40% in just two years from 2020-2021, significantly outpacing other major economies including China, the euro zone and Japan. In the United States under the influence of aggressive fiscal and financial measures,

the dollar global aggregate demand inverse, at the same time due to the domestic effective supply of reduced, price levels, fiscal deficit, Treasury yields are rising, the CPI from 2.6% in March 2021, rising to 9.1% in June 2022, a new record, close to the oil crisis the biggest inflation level [3].

The fed's 2022 rate cycle, mainly in response to the CPI hit a record 40 years and the PPI hit a record for inflation and on the fed's balance sheet hit a record \$9 trillion, to curb the macroeconomic overheating trend, and avoid the rapid growth of the inflation rate, the inflation rate back to 2% of the long-term target, promote the us economy soft landing. Under the combined effects of the complex epidemic, the increasing impact of geographical risks, the blockage of production and supply chains, and extraordinary stimulus, the price imbalance between supply and demand, and the inflation level in major developed economies has reached a multi-year high, seriously affecting the benign sustainability of global social and economic life.

Every time the Federal Reserve releases money or tightening will cause monetary and financial turmoil in emerging markets or developing countries, and even cause financial crisis in serious cases. "The beggar-thy-neighbor monetary policy switch will inevitably endanger other countries and eventually undermine itself. By studying the impact of the Federal Reserve's interest rate hike, it can remind the global market, give appropriate advice to investors as well, and timely adjust market activities and monetary policies, so as to avoid financial risks to a certain extent.

The rest of this paper starts from the two environmental factors of COVID-19 and inflation, analyzes the motivation of the Fed's continuous interest rate hike, and studies the impact of a series of chain reactions caused by the Fed's interest rate hike from the perspectives of stock market and foreign exchange market.

2. Causes

2.1. COVID-19

The COVID-19 pandemic has had a severe impact on the US economy, leading to massive unemployment and business closures, and the rising number of unemployment claims in the United States, resulting in large-scale unemployment. Before the outbreak, the U. S. unemployment rate fluctuated at 4 percent, with a slow decline. The COVID-19 outbreak had a significant impact on the US unemployment rate, reaching a peak of 14.7% and began to decline in May 2020 (the impact of COVID-19 on the surveyed unemployment rate). In response to the crisis, the Fed has adopted a series of monetary policy measures, including interest rate cuts and quantitative easing. The measures are designed to stimulate economic growth and boost inflation rates, but they also pose certain risks, such as inflation and asset bubbles.

2.2. Inflation

Thanks to the COVID-19 pandemic, the Fed has raised interest rates to control inflation and stabilize economic growth. As the economy recovers, inflation starts to rise, forcing the Fed to take steps to control inflation. Raising interest rates could curb inflation by raising interest rates, while also reducing asset bubbles and financial risks. The US consumer price index hit a high of 9.1 percent in June 2022, a new [4] high in 40 years, due to supply chain disruptions, demand recovery and fiscal stimulus. That is well above the Fed's 2% inflation target. Excessive inflation will cause serious damage to the economy, such as eroding purchasing power, disrupting resource allocation, and increasing uncertainty. As a result, the Fed sees the need to tighten monetary policy by raising interest rates to curb inflation expectations and real inflation. At the same time, the Fed believes the US economy has recovered from the pandemic and is resilient enough to withstand higher interest rates.

During the COVID-19 period, the Fed adopted a massive monetary easing policy, leading to a significant increase in the money supply, thus triggering the risk of inflation. To control inflation, the

Fed needs to take steps to curb the risk of inflation. Interest rate hikes can curb inflation by raising interest rates, thus controlling the risk of rising prices. In addition, interest rate hikes can also reduce asset bubbles and financial risks, thus protecting the stability of the economy and financial markets. In short, the Fed's main reason to raise interest rates is to control inflation and stabilize economic growth. Under the dual pressures of COVID-19 and inflation, the Fed needs to take steps to protect the stability of the economy and financial markets. In response, the Fed has lowered its economic forecasts and raised its inflation forecasts. The Fed lowered its forecast for growth this year to 0.4% from 0.5% in the fourth quarter, its forecast for next year to 1.2% from 1.6%, PCE forecast for this year to 3.3% from 3.1%, PCE forecast unchanged at 2.5% next year, 45% from 4.6% and unchanged at 4.6% next year[5].

3. Stock Market

3.1. Nasdaq Market

Founded by the National Association of Securities Dealers, the Nasdaq Stock Market is the fastest growing market of the world's major stock markets, and it is the first electronic one. At present, the NASDAQ market has been divided into three markets: NASDAQ Global Select Market, NASDAQ National Market, and Nasdaq Capital Market. Generally, the companies listed in the Nasdaq Capital Market are mostly small emerging enterprises, because the NASDAQ national market and the NASDAQ Global Select Market have higher financial requirements for listed companies, so the most companies listed in the Nasdaq national Market and the NASDAQ Global Select Market are larger enterprises. The Fed's continued move to raise interest rates is also directly reflected in the changes in the Nasdaq market [6].

First, a Fed hike will higher market rates, which will have an impact on the Nasdaq stock market. Technology companies, for example, the Nasdaq listed companies cover all new technology industry, because technology companies usually need a lot of money to research and development and expansion, so they usually borrow to get money, the fed to raise interest rates will lead to higher financing costs, such as in the initial stage of science and technology enterprise development is not stable, innovation investment may be restricted. For the stock market, the vast majority of technology stocks are usually sensitive to interest rate changes. When the Fed raises interest rates, the rising cost may lead to less demand for technology stocks, which will have downward pressure on the Nasdaq index, and then have a negative impact on the long-term development of the Nasdaq market. If market interest rates rise, this would increase the borrowing costs of technology companies, thereby reducing their profitability and stock price. At the same time, the Fed rate hike will make the dollar stronger, which will have an impact on export companies on the Nasdaq market. Many technology companies are export companies, and their products and services are sold worldwide. If the dollar appreciates, it would make tech companies' products and services more expensive in overseas markets, reducing their sales and stock prices. With the launch of ChatGPT, AI technology suddenly exploded, and the stock price of Nvidia, a company providing AI chips for ChatGPT computing, soared, and the fed rate hike, increasing the price of AI chips it developed and produced. But with the improvement of technology, the demand for chips using AI technology has only increased, so the cost for people to obtain AI chips becomes expensive.

Unlike the negative effects of the stock market, Fed interest rates often lead to higher rates in the bond market. High-rate bonds may become more attractive, thus reducing demand for investments in Nasdaq stocks. This could lead investors to switch from the stock market to the bond market, negatively valuing the Nasdaq stock.

At the same time, the Fed rate hike will also have an impact on investor psychology on the Nasdaq market. Higher interest rates can have an impact on all companies, like the tech companies mentioned

before. Because tech companies typically have high growth potential and high valuations, their stock prices are generally more volatile than those in other sectors. If the market expects the Fed to raise interest rates, this will lead to lower investor confidence in technology stocks, leading to lower stock prices.

Beyond that, the Fed's policy of raising interest rates could trigger volatility in global capital flows. Normally, a Fed rate hike would attract money to the US market, potentially leading to capital outflows from the Nasdaq market. This could have a negative impact on Nasdaq stock prices and liquidity.

Overall, the impact of a Fed rate hike on the Nasdaq market is complex. While higher interest rates could lead to higher borrowing costs for tech companies and lower sales for export companies, it could also boost investor confidence in tech stocks, driving stock prices higher. Therefore, investors need to pay close attention to the Fed's policy changes and make appropriate investment decisions based on market conditions.

3.2. Hong Kong Market

Different from the exchange rate system in the mainland, the Hong Kong, China adopts the linked exchange rate system, which is a fixed exchange rate system, in which the exchange rate is pegged to a certain foreign currency and converted in a fixed proportion. First, linking the Exchange rate regime can ensure the stability of the Hong Kong dollar exchange rate, but it also leads to the complete loss of independence of Hong Kong's monetary policy. Hong Kong is a small open economy, and capital can flow freely. Therefore, in order to maintain the stability of the exchange rate, Hong Kong's monetary policy can only change with the Federal Reserve. Secondly, when the Federal Reserve raises interest rates, it needs to passively follow suit, as Hong Kong often faces pressure from capital outflows and the depreciation of the Hong Kong dollar; However, when the Federal Reserve lowered interest rates, Hong Kong faced pressure from capital inflows and the appreciation of the Hong Kong dollar [7]. Although Hong Kong is linked to the US dollar, about 47 percent of the listed companies in Hong Kong stocks are Chinese companies, and their revenues and earnings are denominated in renminbi. Therefore, when the US dollar appreciates against the yuan, the corporate profits converted into US dollars or Hong Kong dollars will be hit by the exchange losses.

Since the US entered the interest rate hike cycle in March 2022, due to the widening spread between the Hong Kong dollar and the US dollar, the carry trade led funds from the Hong Kong dollar to the US dollar and repeatedly triggered the weak side exchange guarantee. With the decline of the Hong Kong banking system, capital flows out of the Hong Kong dollar system, the Hong Kong dollar interest rate has gradually risen. This process is within the design and expectation of the linked exchange rate system, and the Hong Kong dollar market has been orderly and smooth.

Under the premise of the stable Hong Kong dollar market, the Hong Kong IPO market is expected to continue to rank among the top in the world. As of January 31, this year, 149 companies had applied to list on Hong Kong's main board, and many companies are still interested in listing in Hong Kong. At the same time, the simplified listing structure of overseas issuers will facilitate the return of Chinese concept stocks to Hong Kong, build high-quality RMB core assets, and increase the attractiveness of the Hong Kong market to overseas investors.

The smooth and orderly Hong Kong dollar market also shows that Hong Kong's foreign exchange reserves are sufficient. Under the Hong Kong Monetary Authority system, the HKMA cannot issue new currency without the corresponding foreign exchange reserves, and the increase in foreign exchange reserves mainly enters the Hong Kong market through trade and investment. The orderly progress of the global economic recovery in 2022 has supported the strong rebound of Hong Kong's import and export trade. In addition, the Hong Kong IPO market is still attractive to international funds, and Hong Kong's foreign exchange reserves are sufficient, which helps to ensure the stability

of the Hong Kong dollar exchange rate under the impact of interest rate hikes and improve its ability to resist the impact of external turbulence.

4. Exchange Market

4.1. Euro

The US dollar has dominated the International monetary system for a long time. As the spillover effect of the Federal Reserve's interest rate increase has not subsided, the global era of low interest rates for more than 10 years has ended. The central banks of Britain, Canada, Australia, and other countries have raised interest rates for many times in a row, and the interest rate has hit a new high in nearly 10 years. It can be seen that major developed countries have followed the United States into a cycle of interest rate hikes, hitting a near-decade high [8]. The behavior of the Federal Reserve to raise interest rates triggered the volatility of the global money market, and the European Central Bank adopted the corresponding interest rate hike policy to follow the Federal Reserve's interest rate hike policy, and thus stabilized the currency market of the euro zone. But the Fed's aggressive rate hike made the dollar stronger, and the negative impact on the eurozone was extremely severe. The euro continued to fall against the dollar, and government bond yields in some members rose, raising borrowing costs for European governments.

The euro has fallen more than 12 percent against the dollar since 2022, briefly falling below 1:1 parity, its lowest level in nearly 20 years. At present, Europe is plagued by energy crisis, high inflation, the risk of economic recession and other problems, further driven by the Federal Reserve interest rate hike, a large amount of money out of Europe, the euro is facing a depreciation storm [9].

Guo Hongyu, a professor at the School of Finance at the University of International Business and Economics, said in the overseas edition of the People's Daily that the Fed's primary goal of raising interest rates is to solve the US's own problems, which is to tackle inflation. However, since the US dollar is the main currency of international reserves and international settlement, the monetary policy adjustment of the United States will produce spillover effects, which also makes it easier for the United States to use the advantage of the US dollar to spread risks. At present, under the influence of the Federal Reserve's continuous interest rate hike, the yield on dollar assets increases, and more investors choose to hold dollar assets, leading to the return of the dollar and further strengthening the dollar. When the dollar appreciates, the euro may face downward pressure against the dollar, meaning that the euro falls down. This could have a positive impact on eurozone exports, as the falling euro makes European goods more price-competitive. However, it will also increase the cost of imported goods, which adversely affects the import business in Europe.

At the same time, the institutional characteristics of the euro zone also affect the ability to bear pressure on financial risks. The mechanism of "unified monetary policy and inconsistent fiscal policy" in the euro zone, as well as the unbalanced development among member states, leads to the high difficulty of ECB monetary policy, which is not conducive to the euro zone to timely changes in the external situation. If the guarantee system goes wrong, the euro is at higher risk. At present, the safe-haven role of the US dollar has objectively improved, the outflow of international capital from the euro zone has accelerated, and the speculative capital attack, the volatility of the euro exchange rate has intensified.

4.2. Renminbi

As China opening to the outside world deepening, China's economy has deep into the world economy, China as one of the main international trading partners in the United States, the federal reserve to raise interest rates on the global economy at the same time, will also be through the exchange rate interest rates, trade, asset prices and international commodity prices channels such as macroeconomic

influence [10]. In the case of floating exchange rate, according to the interest rate parity theory, the change of the interest rate spread between the two countries will lead to the arbitrage behavior of investors, leading to the increase of cross-border capital flows, and the exchange rate of the two countries will adjust accordingly, thus reaching a new state of equalization. The Federal Reserve's interest rates have inverted the interest rate spread between China and the US, and the yuan has an incentive to depreciate to offset investors' arbitrage, which will make the yuan more expensive in the international market.

After the us dollar interest rate hike, the interest rate spread between China and the United States was inverted, and the cost of domestic enterprises borrowing foreign debt increased significantly. After the interest rate hike continued in the US dollar, the interest rate spread between China and the US continued to narrow, and inverted after the third quarter, leading to the rising cost of domestic enterprises. At the same time, the Federal Reserve will increase the debt repayment pressure of the dollar debt held by enterprises and increase the debt default rate. In response to the impact of the Federal Reserve's continuous interest rates, central banks of various countries will also raise interest rates, resulting in further tightening of global liquidity, huge debt repayment pressure on enterprises, and prone to debt default. And the increase of the debt default rate will also affect the credit [11] of overseas dollar bonds in the future. After the fed to raise interest rates, China 10 years bond yields also happened with the 10 years Treasury yields similar [12], but Chinese Treasury investors is given priority to with domestic large and medium-sized financial institutions, the Chinese financial institutions are different from the United States, it is hard to see the sharp interest rates have caused the phenomenon of Chinese national debt asset holdings replacement.

China's import trade is limited by the Federal Reserve's interest rate hike and the depreciation of the yuan's spot exchange rate against the US dollar, However, the interest rate hike of the Federal Reserve and the depreciation of the spot exchange rate of the RMB against the US dollar have an obvious positive effect on China's export trade, The Federal Reserve rate hike and the depreciation of the RMB spot exchange rate against the US dollar have a positive impact on China's balance of payments, And could strengthen expectations of yuan appreciation against the dollar, That offsets some of the impact of the Fed's rate hike on the yuan's depreciation against the dollar, A stained balance of payments surplus, Can attract foreign capital inflows into China's capital markets, Thus, the Chinese stock market in the Federal Reserve interest rates still maintain a relatively stable volume, It has also kept the Chinese economy in good shape.

4.3. International Trade Pattern

Since the dollar is one of the most important currencies in the world, its exchange rate has an important influence on global trade. A Fed rate hike often leads to a tightening of global liquidity. This could make borrowing in global markets more expensive, having a negative impact on debt and economic growth in developing countries. In addition, a tightening of global liquidity could also lead to weaker global trade activity.

If the Fed raises rates as a response to economic growth and inflation, then it could have a positive impact on the international trade landscape. Higher interest rates could help control inflation and keep the economy growing steady, thus providing a more reliable environment for international trade.

The Fed raising interest rates could affect protectionist tendencies in international trade. If growth is strong, it could lead to more domestic demand, which reducing demand for imported goods. This could lead to trade disputes and trade restrictions.

5. Conclusion

In order to deal with the inflation caused by the conflict between Russia and Ukraine and the COVID-19 epidemic, the Federal Reserve proposed to raise interest rates to deal with it, which has had a series of effects. This topic is studied in this paper. Fed rate hikes usually lead to a tightening of global liquidity. This could make borrowing in global markets more expensive, having a negative impact on debt and economic growth in developing countries. In addition, a tightening of global liquidity could also lead to weaker global trade activity. Therefore, it is suggested that the Chinese monetary authorities, should further improve the construction of foreign exchange derivatives system, continue to promote the innovation and development of foreign exchange hedging derivatives for enterprises and finance and institutions; on the other hand, should attract more types of operators to participate in the foreign exchange market trading and foreign exchange derivatives trading, and further improve the market price formation and transmission mechanism. Only by continuously improving the adaptability of operating entities to the two-way fluctuations of the RMB exchange rate can we effectively curb the drastic fluctuations of the exchange rate and keep the expectations stable. Based on this, this article suggests that investors act cautiously in uncertain financial environments.

References

- [1] W Zhong. (2005). *Fed rate hikes, capital flows and the yuan exchange rate*. *The World Economy* (03), 10-16.
- [2] D Chen & P Chen. (2023). *A Study of the economic impact of the Fed rate hike cycle*. *Western Finance* (04), 45-49.
- [3] S Li, Q Zhang, and Y Li (2022). *This round of us inflation development trend and its impact on China*. *China prices* (07), 27-30.
- [4] D Wang & R Yu (2023). *The spillover effect of the Federal Reserve rate hike and the impact analysis on China's exchange rate and cross-border capital flow*. *Tsinghua Financial Review* (02), 53-56.
- [5] B Wu (2023). *Behind the Fed's "dovish" rate hike*. *The 21st Century Business Herald*, 003.
- [6] Y Zhao (2020). *China's science and technology innovation board market and the US NASDAQ market comparison*. *National Circulation economy* (09), 104-105.
- [7] C Jiang (2017). *Following the US interest rate hike, why does the Hong Kong dollar still depreciate?* https://m.gelonghui.com/p/132295?ivk_sa=1024320u
- [8] X Xu (2023). *How much of the Fed's continued interest rate increases is*. *Economic Daily*, 009.
- [9] Z Lin (2022). *The dollar is capricious and the euro is unbearable*. *People's Daily Overseas Edition*, 006.
- [10] Q Wu (2023). *Analysis of the spillover effect of the Federal Reserve rate hike on our economy*. *China prices* (03), 17-20.
- [11] R Yu & D Wang (2023). *Wind blows wrinkled water: How the Federal Reserve raises interest rates will affect China's exchange rate and cross-border capital flows*. *Financial Market Research* (01), 117-124.
- [12] Y Chen. (2022). *The impact of the Fed rate hike on RMB interest rates and exchange rates*. *Modern Commerce* (29), 31-35.