

# *The Trend and Spillover Effect of Fed's Interest Increase Policy*

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**Abstract:** Since 2022, the Federal Reserve has started a new round of rapid rate increase process due to the continuous rise in inflation. However, due to the combined effects of the epidemic and the conflict between Russia and Ukraine, the impact of the current Fed rate hike on the global economy and finance is different from previous cycles. Based on the recent stance of the Federal Reserve, the market generally judges that the current round of interest rate increase cycle of the Federal Reserve has come to an end. This paper discusses when and how the Federal Reserve will cut interest rates. At the same time, relevant suggestions are put forward on how to prevent the spillover effect of the Fed's interest rate hike. Through way of qualitative analysis, the author believes in how to balance the three goals of inflation elimination, employment stabilization and financial stability, or the main line of the monetary policy decision of the Federal Reserve in the future.

**Keywords:** federal reserve, interest rate rise, spillover effects, monetary policy

## 1. Introduction

In May 2023, the Federal Reserve announced after the interest rate meeting to increase the target range of the federal interest rate by 25bp to 5%-5.25% and continued to reduce the scale as planned (with a monthly cap of US\$ 95 billion). At the same time, the meeting did not provide any guidance on raising interest rates, nor did it make a decision to "suspend interest rate hikes" in June [1]. It is expected that whether the Federal Reserve will raise interest rates again in the future will depend entirely on data.

The key message in the statement of this meeting is that the Federal Reserve no longer calls "further tightening is appropriate" or emphasizes the "full tightening" position, but hopes to achieve "further tightening" through the lagging effect and cumulative effect of monetary policy.

In the speech segment of the press conference, Powell, the chairman of the Federal Reserve, still talked about bank risks at the beginning, stressing that the banking industry is still "sound and flexible" and that credit conditions are expected to shrink further, thus suppressing economic activities, but the extent is uncertain. At the same time, the statement of the Federal Reserve on employment and inflation has changed subtly. On the employment side, the Federal Reserve thinks that the labor market is returning to a balanced state and the tension has eased somewhat, because the number of vacancies in February and March continued to fall more than expected, reducing the gap between labor supply and demand from more than 5 million to about 3.5 million; On the inflation side, although it stressed that it was still concerned about the inflation risk, it deleted the expression

"too high" about inflation. In order to be cautious, Powell still stressed that "if it is necessary to further tighten monetary policy, he is prepared to take more measures."

During the question-and-answer session, Powell responded to many market concerns. With regard to the economic recession, although more members of the Federal Open Market Committee (FOMC) believe that the probability of a mild recession at the end of the year in the United States is higher, Powell personally still believes that the probability of escaping the recession is higher than the probability of a recession, based on the resilience still derived from the labor market. As to whether to consider adjusting the inflation target to 3%, Powell still maintains the previous view that achieving the 2% inflation target is the most urgent matter and raising the inflation target is not on the agenda. Powell did not respond positively to whether to cut interest rates by the end of 2023. Instead, he stressed data dependence—if the fundamentals of the year did not deviate from the path of the March Economic Projections Digest (SEP), it would not be appropriate to cut interest rates by the end of the year. Powell's estimate of the "slope" of US inflation downward in the second half of the year is more conservative than that of the market.

On the whole, the resolution of the Federal Reserve meeting in May was basically in line with the market expectations, and the statement was partial to "pigeon". Although it is not clear at this meeting whether to suspend the interest rate hike in June, the probability of the last rate hike in May is very high. The monetary policy stance pursued by the Federal Reserve corresponds to the "higher for longer" path of raising interest rates. Judging from the recent situation, "higher" in "higher for longer" has been basically realized, but the timing of the end of "longer" (i.e. the timing of the rate cut) is still uncertain. In the next stage, the Federal Reserve may gradually shift its attention from "inflation" to "stagnation" in the fundamentals, pay more attention to bank risks and credit crunch and shift the labor market from "equalization" to "substantial weakening" (such as a significant drop in new non-farm payrolls and a trend upward in the unemployment rate), and then adjust the policy guidelines in a timely and flexible manner.

With the end of the Fed's interest rate hike approaching, the timing and rhythm of the rate cut will become the focus of the next stage of the market game. As the central bank of the world's largest economy and the international status of the US dollar in the world, the changes in the monetary policy of the Federal Reserve have a great impact on the global economy and finance. It needs to pay close attention, strengthen research and judgment, and take countermeasures based on the actual situation.

## 2. Introduction to Relevant Theories

The trigger for the Fed to cut interest rates is not a single condition, but a combination of fundamental conditions, financial instability and political pressure, with different priorities. Referring to several interest rate-raising cycles of the Federal Reserve since 1958, the average time for the terminal interest rate to remain high is 6.5 months, with a median of 5 months; The longest is 15 months (2004-2007) and the second is 12 months (1958-1960); The shortest period is only three months, and there have been three times in all, namely, 1972-1974, 1977-1980 and 1983-1984. The first two times correspond to the "hard landing" (i.e. recession) of the US economy after the "First Oil Crisis" and "Second Oil Crisis", respectively [2]. The third time is the "soft landing" of the US economy after the interest rate hike implemented by Volcker when he was the chairman of the Federal Reserve. The second was 4 months, from 1980 to 1981 and from 1988 to 1989 respectively. There were also two five-month events, from 1965 to 1967 and from 1994 to 1995. There were seven times when the interest rate remained high for less than or equal to five months, accounting for nearly half of the total. This shows that the historical endpoint of the interest rate increase is not long, even in the era of "big stagflation"[3]. In conclusion, the reason why interest rates remained high for a short period of time, or because the terminal interest rate was too high and monetary policy was too tight, led to great economic or financial pressure, such as three interest rate cut cycles in the era of "great stagflation"

[4]; Or because the inflationary pressure is already relatively small, and the Federal Reserve has chosen to "walk against the wind" by raising interest rates ahead of time, so that inflation will have an early inflection point and interest rates can be cut faster.

### 3. Factor

#### 3.1. Inflation

A return to 2% inflation or the establishment of a downward trend in inflation are not necessary conditions for a rate cut [5].

Although the original intention of the Federal Reserve to raise interest rates is basically to stabilize prices, not all of the rate cuts indicate that prices have stabilized, much less that the inflation target has been achieved. At the start of the previous 12 interest rate cut cycles, inflation was in the downward range on 8 occasions. The timing of the rate cut lags behind the high inflection point of inflation by an average of 5 months (with a median of 3.5 and a maximum of 18 months). Therefore, even if the pressure of "inflation" is still great in the short term, the Federal Reserve can still choose to cut interest rates when the expectations of "stagnation" continue to strengthen or financial instability. Financial stability was the main consideration when the Federal Reserve cut interest rates in September 2007.

#### 3.2. Labour Market

The labour market remains "very tight", but signs of a marginal slowdown are increasing.

The labor market in the United States is still very tight. The reasons for the imbalance in labor supply and demand are the lack of elasticity of supply and the resilience of demand. In February 2023, the unemployment rate in the United States was 3.6%, and the actual unemployment gap may reach -1.7% [6]. The number of vacant posts and the vacancy rate were 10.8% and 6.5% respectively, and the corresponding number of vacant posts per unemployed person was 1.9, which were all in the historical high score range. The employment rate and labor force participation rate have not yet returned to their pre-COVID-19 levels, with gaps of 0.9 and 0.8 percentage points respectively.

However, the sign that the labor market margin in the United States is weakening cannot be ignored. The turning point in aggregate always begins with the structural weakness. By the end of February 2023, the unemployment rate of the "vulnerable groups" represented by Hispanics had started to rise significantly: the low point in November 2022 was 4.0% [7], followed by three consecutive months of upward movement, rising to 5.3% in February 2023. The number of employees in the "temporary help service" has decreased for 4 consecutive months from the previous 3 months; The momentum of the Labor Market Conditions Index (LMCI) has been negative for 6 consecutive months, all showing signs of marginal weakening.

LMCI has certain guiding significance for the conversion of the policy stance of the Federal Reserve.

There is a positive correlation between the level of LMCI and the federal funds rate [8]. The results of the univariate regression based on the Logit model show that the LMCI level can explain 40% of the federal funds rate. Intuitively, the starting point of the rate cut cycle mostly falls in the falling range of LMCI level, i.e., the negative range of LMCI momentum value, for example, July 1995, December 2000 and September 2007 all meet this feature.

After the COVID-19 outbreak, the high point of LMCI level has appeared in February 2022 (1.43), and the momentum value of LMCI has been negative for five consecutive months from November 2022 to March 2023 (the absolute value tends to converge). Overall, the US labor market is weakening on the margins. If the momentum value of LMCI accelerates downward, the conditions for the Federal Reserve to cut interest rates may be more adequate.

### 3.3. Inflationary Pressure

The timing of the rate cut deviates from the peak of the economic cycle by a small margin, and whether it leads or lags depends on the inflationary pressure [9].

Based on the experience of nine economic recessions in the United States history, it can be seen that the deviation between the point at which the Federal Reserve cut interest rates and the apex of the economic cycle determined by the National Bureau of Economic Research (NBER) is relatively small, with the average value leading by about one month (i.e. synchronizing with the apex of the cycle), and the median value lagging by about two months, but the distribution is relatively scattered. Specifically, in the first five recessions, the time point of the Federal Reserve's interest rate cut lags behind the starting point of the recession, of which 3 times lag by 2 months, 1-time lag by 3 months, and 1-time lag by 10 months (1972-1974). In the four recessions since the 1990s, interest rate cuts have been ahead of recessions at 14 months, 3 months, 4 months and 8 months in turn.

### 3.4. Financial Risk

Financial risk is an important condition that forces the Federal Reserve to "emergency" turn.

If the Federal Reserve raises interest rates, it will curb aggregate demand through credit contraction, which will easily lead to positive feedback of "monetary contraction-credit contraction-economic slowdown-financial risk-economic recession". So the latter part of the rate-raising cycle often corresponds to some form of financial risk (within the US or in other economies) [10], such as the "pretty 50" crash in the "big stagflation" era; In the early 1980s, under the "Volcker shock" of the storage and loan crisis and the real estate bubble; The Latin American debt crisis and the dotcom bubble in the Greenspan era; And the sub-prime crisis of the Bernanke era. Therefore, financial risk is also an important dimension that forces the Federal Reserve to turn.

## 4. Conclusion

On the whole, taking the bankruptcy of Silicon Valley banks in March 2023 as the turning point, the policy stance of the Federal Reserve may gradually shift from a single inflation suppression to a balance between inflation and financial risks. The author believes that in the coming period of time, the priority of anti-inflation in the decision-making of the Federal Reserve will tend to be downward, the priority of financial stability and maximum employment will tend to be upward and will dominate in the second half of 2023, prompting the Federal Reserve to cut interest rates. As mentioned earlier, the Federal Reserve may cut interest rates anytime, depending entirely on exogenous factors. Under the benchmark assumption that the recession will be fulfilled during the year, the conditions for interest rate cuts at the end of 2023 are relatively adequate. In the second half of the year, the Federal Reserve needs to guard against the risk of excessive monetary policy tightening rather than the risk of premature easing. In terms of the timing of the rate cut, financial stability is the biggest variable. At present, any variable of inflation, employment and financial stability exceeding expectations may change the "preset" policy path of the Federal Reserve. Although market participants can "snatch", in terms of policy analysis, it is more important to clarify the logic and conditions than to judge the timing. This paper is only a summary of some relevant issues and key points of the Federal Reserve's monetary policy based on historical data for reference. Relevant institutions can study the direction of the Fed's monetary policy.

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