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Relating Fed Rate And Repo Rate With Inflation Rate – A Study Of U.S. And India

Dr.SangeetaPorwal

(M.Com, M.Phil., PhD, ICWA)

Professor, Dyal Singh College

University of Delhi

Abstract

U.S. Federal Reserve changes the Fed Rate to control inflation. Consequently, Changes in the Fed Rate put pressure on developing economies (especially India). Likewise, the Reserve Bank of India changes its Repo Rate on its stance and on account of changes in the Fed Rate to attract the Foreign Institutional investors and Foreign Direct Investments. The purpose of this study is to find the relationship between the Fed rate and the Indian repo rate in the respective countries (U.S. and India), with that of inflation only. Various finance experts believe that the Indian Repo Rate is affected by the Fed rate and other factors like the Dollar Index, Gold rate, US Federal rate, inflation (in the US, India, and the world), and oil prices.The Federal Reserve (U.S.) and the Reserve Bank of India (India) control monetary policy in the respective countries to maintain the excess supply of money to control inflation.The article highlights various suggestions and conclusions. Growth rate and foreign exchange reserves both may positively or negatively affect. Likewise, imports or exports may increase or decrease. FIIs may be tempted to invest/disinvest more by bringing huge volatility in the stock market

Key words: Fed Rate, Repo Rate, and Inflation Rate

Introduction

The Indian economy is the fastest-growing economy in the world. It surpassed China's growth rate. To grow fast, various parameters are needed: The Indian government has performed, reformed, and transformed multiple rules, policies, and laws (deleting unnecessary laws. It has concentrated on bringing laws that contribute tothe ease of doing business. Make in India is another impetus in this respect. It emphasizes manufacturing activities and the service's activities (financial and digital to a large extent) in the national and international scene.Special efforts have been made to attract foreign direct investments by relaxing rules in this respect. Foreign exchange reserves have grown to record highs. It is also adopting various measures to keep a balance between monetary and fiscal policies to control inflation.

The Reserve Bank of India plays a quintessential role in controlling monetary policies. From time to time, it reviews and revises its repo rate, and cash reserve rate to bringdown the pressure on the Dollar (supply and demand of the dollar).

This article aims to study the relationship between the Fed rate and the Indian repo rate in the respective countries (U.S. and India) with that of inflation only. Various finance experts believe thatthe Indian Repo Rate is affected by the Fed rate and other factors like the Dollar Index, Gold rate, US Federal rate, inflation (in the US, India, and the world), and oil prices. Federal Reserve (U.S.) and Reserve Bank of India (India) control the monetary policy in the respective countries to maintain the excess supply of money to control the inflation. First, we present a brief review of literature, which is followed by a discussion on various factors that are affected by the change of Repo rate and the Fed Rate.

Review of literature

Changes in the Fed Rate affect the emerging market and developing economies (EMDEs). Carlos Arteta Steven Kamin Franz Ulrich Ruch, in their paper (Dec 2022), examined the implications of different types of interest rate shocks in the U.S. for EMDEs. They found that interest rate shocks adversely affected the financial conditions, consumption and investment fell, and the government cut spending to improve budget balances (11).

Repo Rate hikes (on account of Fed Rate hikes) have a direct impact on the lending rate of Banks in India.According to the paper published byChandranLakayil and Manju, with the repo rate increase, banks also increase the interest rates on deposits and lending rates. As a consequence, an increase in the lending rate increases the borrowing cost for Micro, Small and Medium sectors, hitting them hardest. Their paper reviews the movement of lending rates in the banks in the post-**COVID-19** period (16).

An upward movement in the U.S. Fed rate is generally visualized as generating adverse spill overs to emerging market economies (EMEs).Hoek, J., S. Kamin, and E. Yoldas (2022), in their paper, found that higher rates stemming from stronger U.S. growth generate only modest spill over to EME financial markets, while those stemming from hawkish Fed policy or inflationary pressures were much more disruptive (14).

Ahmed, S., B. Coulibaly, and A. Zlate. 2017, in their paper, assessed the importance of economic fundamentals in the transition of international shocks to financial markets in the various emerging markets (EME). Cross country regressions led them to the following results. Firstly, EMEs with relatively better economic fundamentals faced less determination in financial markets during the 2013 taper-tantrum episode. Secondly, controlling for economic fundamentals, during the taper-tantrum, financial conditions worsened more in those EMEs that had earlier faced larger private capital inflows and greater exchange rate appreciation (12).
Repo rate

Repo rate

These two words have been derived from ‘Repurchase Option’ or ‘Repurchasing Agreement’ It is the rate at which different commercial banks borrow funds from the Reserve Bank of India (RBI) against security and bonds collaterals. These assets are repurchased from the RBI at a predetermined price (Repurchase agreement). Likewise, when Apex Bank borrows from these commercial banks, the interest rate is charged by commercial banks. The interest rate is called the Reverse repo rate. RBI for implementing its monetary policy uses various instruments such as statutory liquid ratio (SLR), Cash reserve ratio (CRR), Repo Rate, Reverse Repo rate to regulate cash flow within the country (economy) to control inflation. RBI recently announced these rates on 07 February 2025, which are as follows:

Current Repo rate is 6.25%, andthe Reverse Repo rate is 3.35% Feb 2025.

From time to time, RBI lends funds to various banks to meet the short-term fund requirements for maintaining liquidity and controlling inflation. During high inflation, the apex bank increases the Repo Rate. A rate increase discourages borrowing by businesses (increases the cost to borrowers, reducing investment activities in the economy and slowing down the supply of funds in the market. Besides inflation, an increase in the Repo Rate helps to dealwith the risk of currency depreciation in the country. Alternatively, during the high depression and recession, the Repo Rate is reduced to give impetus to borrowing and enhance the flow of funds in the market (increases the cash expenditure). There is an inverse relationship between the two.

Impact on home loans

Increases or decreases in the Repo rate have a direct bearing on the home loan interest rate, EMI (equivalent monthly Instalment), loan eligibility and loan feasibility.

As the Repo Rate increases, the interest rate increases. Both have a direct correlation This increases in the EMI in the case of house loans. The number of home loans that borrowers are eligible for may get reduced with the increase in the Repo Rate (as the Repo rate increases the home loan rate increases). On the contrary, a reduction in Repo Rate increases the loan eligibility. Similarly, it has the same impact on loan feasibility (refers to more chances of availing home loan) as that on loan eligibility.

Enhancement of activities in the housing industry has a direct correlation with increases in the activities in cement, iron and steel industries and many other ancillaryindustries relating to housing products. Consequently, it has a direct impact on the growth of the economy

Impact on individuals

Repo Rate has a direct impact on individual savings. As the Repo Rate increases the savings and fixed depositsbring higher rates and returns. Also, it decreases the borrowing power and capacity as the lending rates increase. As already explained, the amount of EMI may increase or decrease with the increase and decrease of Repo Rate especially in the case of a floating interest rate.

Impact on Bank rate

As the Repo rate increases, the bank rate increases. In the case of bank rate, the banks do not have collaterals against the funds they borrow from the central bank (RBI). Hence, the bank rate is higher than the Repo Rate. Therefore, it makes loans expensive for the borrowers (Micro, Small, and Medium Enterprises -- MSME). RBI uses this rate to achieve the long-term economic goals of the country

Fed Rate

TheFed rate is governed by the Federal Reserve in the United States. Federal Open Market Committee (FOMC) of the Federal Reserve looks after monetary policies in the US taking into consideration inflation, prevailingunemployment and other parameters. Federal Reserve cuts interest rates when the economy slows down to kindle economic activity and growth, as against this, it raises interest rates when the economy is overheating to prevent inflation. The goal of reducing down is to cut the cost of borrowing so both the people and businesses are willing to invest and spend. Interest cut has a chain effect on mortgage rates, the stock market, consumer credit and home loan interest rate. The present rate is 4.33 as on 1st March, 2025.The US Fed rate has an impact on the rate fixed by the central bank of other countries. Indian Repo rate is largely affected by the rate prevailing in US Federal Bank. Foreign financial investors (FII) in India move their funds in and out of India based on the Fed Rate which has a direct impact on the value of the Dollar. This not only bringsabout volatility in the Indian stock market but also creates pressure on the foreign exchange reserve (Dollars) especially in India. The dollar is the most demanding currency in terms of trade all over the world. Balance of Foreign currency reserve approximately 640480 USD Million as on February 21, 2025.

The buzzwordprivatization, liberalization, and globalizationarelosing importance although at a slow pace and more concentration is being levied on protectionism especially in America (to Make America Great Again – MAGA). This has given a fillip to the bilateral agreements in different countries.(America has withdrawn from the United Nations, World Climate Agreement: it has started making all those decisions thatfavour America. President Trump is not very prone to international organisations (like WTC, United Nations, etc.). The USA is not only opposing the proposal by BRICS countries to have their currency to trade but also imposing tariffs to trade with different countries. It is likely to challenge the supremacy of the Dollar as a trading currency (as it would lead to the De-dollarization). European Union (Union deals in its currency), China, and India are heavily investing the gold to overcome.Instead of real war, there is likely a trade war among countries. Change in Fed Rate has a lot of impact on the investment climate by mutual funds, FII, etc. The lesser the stable currency to trade, the greater the risk for investment. Various countries like China, India, and the European Union have started buying gold to overcome the risk of investment on account. In a way, this is indirectly affecting the supremacy ofthe Dollar. Let us analyse the Dollar index on account of this reason and how it is affecting the Fed Rate and the Indian repo rate (India is looking (Make India Great Again- MIGA). However, it is mentioned that the up and down movement in the Fed rate has an impact on the central rate of the respective country.

US Dollar index

US Dollar Index refers to a measure of the value of the US Dollar relative to a basket of foreign currencies. The index includes six currencies: the Euro, Swiss Franc, Japanese yen, Canadian dollar, British pound, and Swedish krona of trading partners. Index has a base of 100 and values are interpreted relative to this base. The index provides a fair indication of the dollar's value in global markets. If the index is rising, it means that the dollar is strengthening against the basket. If it is falling, it is weakening. It is calculated by giving weight to six foreign currencies which are as follows:

- Euro - 57.6% weight
- Japanese yen - 13.6%
- Pound sterling - 11.9%
- Canadian dollar - 9.1%
- Swedish krona - 4.2%Swiss franc - 3.6%

It is a proxy for the health of the U.S. economy and traders can use it to speculate on the dollar's change in value or as a hedge against currency exposure.

Scope

The scope of this article is confined only to studying the relationship between the US Fed Rate and the Indian Repo Rate with that of the inflation rate, and other factors have not been considered. Both rates have been considered for the period May 2022to January 2025. Data has been collected and compiled from different Websites as given in the references.

Methodology and Analysis

Changes in the US Fed Rate affect various central rates (of banks) all over the world in different countries to control inflation and for pushing up the growth rate. Hence, with no country being immune to it (change in Fed Rate). A question pops up in the mind, is there a connection/correlation between the two rates of countries, with that of inflation? The purpose of writing this article is to examine the correlation between the US Fed Rate and the Indian Repo Rate with that of the inflation rate of the respective country (U.S. and India). To maintain rational monetary policy, India and other countries face implied pressure to change their central rate. As a result, various parameters (like inflation, the growth rate of the economy, other types of interest rates, gold rate, oil prices, Dollar index, etc.) are affected by changes Indian Repo rate. Pearson's coefficient of correlation (r) has been calculated between the Fed Rate and the inflation rate of U.S. by using Excel. Similarly, Pearson's coefficient of correlation has been calculated between Indian Repo Rate and Indian inflation rate (Consumer price Index). It is -87.85% (U.S.) and -63.16 (India). Based on the coefficient correlation, which is negative, it can be concluded that there is negative correlation of Fed rate and the inflation rate. Likewise, there is no association between Repo rate and inflation rate. Change Repo rate and Fed rate is not a phenomenon that occurs quite frequently. However, change in rates directly affect various parameters consequently to inflation on day today basis. So negative correlation could be attributed to this reason.

Limitations

The article takes into consideration only one factor. Other factors could have been considered to obtain a better coefficient of correlation. The data is dependent on the dates on which Fed Rates have changed. Normally, the Indian Repo rate is affected by an increase or decrease in the Fed rate, which could be a month later or more as experts opine.

Conclusions/Suggestions

The changes in the Fed Rate provide a clue to the investors. Changes in the Fed Rate may bring about volatility in the stock market. There may be inflation or price reductions in the economy. Growth may be adversely or positively affected. Imports or exports may increase or go down. Foreign exchange reserves may be positively or adversely affected. Foreign direct investments may increase or decrease. There may be fluctuations in currency value. Foreign Institutional investors play a leading role by investing or disinvesting the funds, which brings about volatility in the stock market.

Forecasting methods for growth and inflation needed to be improved as announced by the RBI's present chairman, Mr Sanjay, by incorporating the effective role ofthe Monetary Policy Committee of the RBI to balance the growth and inflation on account of changes in the Repo rate. To push up the growth rate in the U.S., President Trump is hinting at reducing the FED rate while Jerome Powell has recommended a cautious approach to reducing the Fed rate.

References

1. https://www.google.com/search?q=inflation+and+repo+rate&oq=inflation+and+repo+rate&gs_lcrp=EgZjaHJvbWUyCQgAEEUYORiABDIHCAEQABiABDIICAIQABgWGB4yCAgDEAAYFhgeMggIBBAAGBYYHjIICAUQABgWGB4yCAgGEAAYFhgeMggIBxAAGBYYHjIICAgQABgWGB4yCAgJEAAYFhge0gEKMTU5NjVqMGoxNagCCLACAQ&sourceid=chrom
2. https://www.bajajhousingfinance.in/repo-rate
3. https://unacademy.com/content/railway-exam/study-material/static-gk/a-simple-note-on-how-repo-rate-checks-inflation/
4. https://www.investopedia.com/terms/f/federalfundsrate.asp#:~:text=The%20federal%20funds%20rate%20is%20the%20target%20interest%20rate%20range,based%20on%20prevailing%20economic%20conditions.
5. https://www.usbank.com/investing/financial-perspectives/market-news/federal-reserve-interest-rate.html
6. https://tradingeconomics.com/united-states/interest-rate
7. https://think.ing.com/articles/fed-confirms-a-slower-and-shallower-rate-cut-story-for-2025/
8. https://www.investopedia.com/terms/u/usdx.asphttps://www.bankbazaar.com/gold-rate/gold-rate-trendinindia.html
9. https://www.iiflcapital.com/blog/undefined/are-interest-rates-in-india-linked-to-us-interest-rates-
10. https://www.bankofbaroda.in/-/media/project/bob/countrywebsites/india/economic-scenario/data-releases/fed-versus-rbi-03-11.pdf
11. How Do Rising U.S. Interest Rates Affect Emerging and Developing Economies? It Depends Carlos Arteta Steven Kamin Franz Ulrich Ruch, Policy Research Working Paper 10258.World Bank Group, Peospects Group ,Dec 2022.
12. Ahmed, S., B. Coulibaly, and A. Zlate. 2017. "International Financial Spillovers to Emerging Market Economies: How Important Are Economic Fundamentals?" Journal of International Money and Finance 76 (September): 133-152.
13. Chen, J., T. Mancini-Griffoli, and R. Sahay. 2014. "Spillovers from United States Monetary Policy on Emerging Markets: Different This Time?" IMF Working Paper 14/240, International Monetary Fund, Washington, DC. Cieslak, A., and A. Schri
14. Hoek, J., S. Kamin, and E. Yoldas. 2022. "Are Higher U.S. Interest Rates Always Bad News for Emerging Markets?" Journal of International Economics 137 (July): 103585.
15. Mishra, P., K. Moriyama, P. M. B. N'Diaye, and L. Nguyen. 2014. "Impact of Fed Tapering Announcements on Emerging Markets." IMF Working Paper 14/109, International Monetary Fund, Washington, DC.
16. ChandranLakayil, Manju Shree,Repo Rate Hike in the Post-Covid Period and Its Impact on the Lending Rate of Banks In India, Journal of Life Style & SDG,s Review, 2024
https://doi.org/10.47172/2965730X.SDGsReview.v4.n04.pe03541

17. https://www.mospi.gov.in/dataviz-quarterly-gdp-growth-rates
18. https://www.macrotrends.net/global-metrics/countries/IND/india/inflation-rate-cpi
19. https://www.moneycontrol.com/economic-calendar/india-inflation-rate-yoy/5128767
20. https://www.statista.com/statistics/673513/monthly-prices-for-gold-worldwide/
21. https://www.basunivesh.com/rbi-repo-rate-history-from-2000/
22. https://tradingeconomics.com/united-states/inflation-cpi