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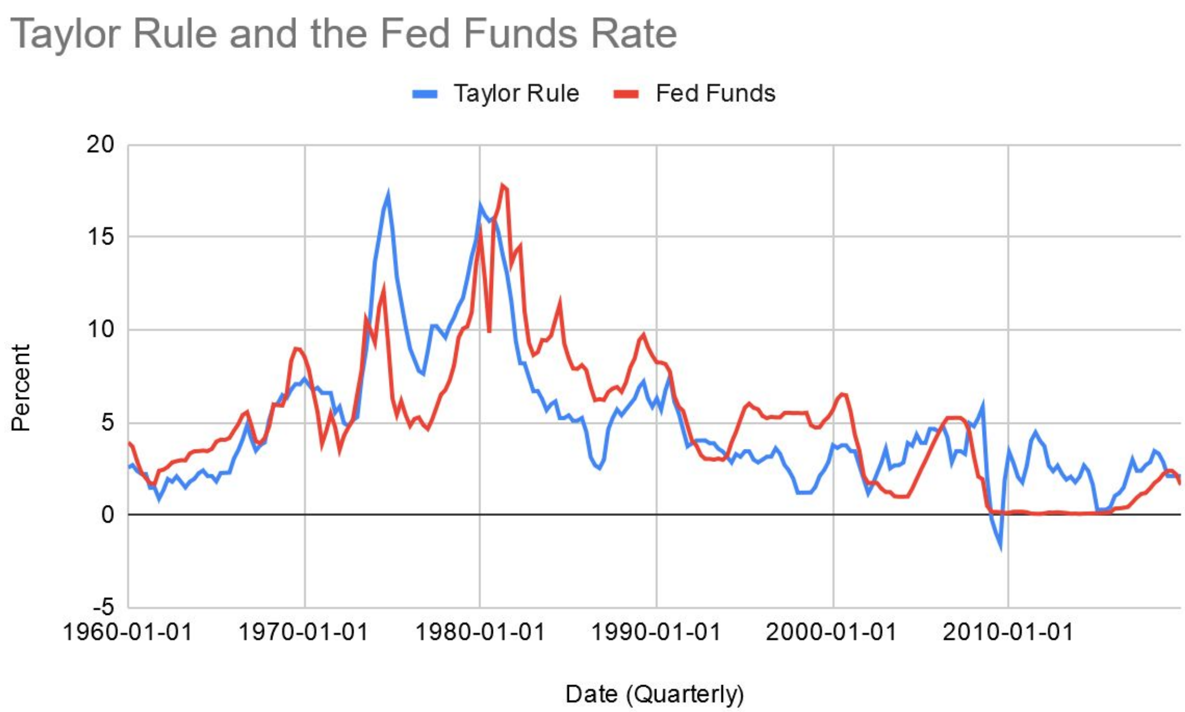
Modified Taylor Rule



Data from FRED:
https://fred.stlouisfed.org/series/PCEPI
https://fred.stlouisfed.org/series/GDPC1
https://fred.stlouisfed.org/series/GDPPOT
https://fred.stlouisfed.org/series/FEDFUNDS

Before analyzing the Federal Funds Rate it is important to understand what exactly is the Federal Funds rate. The Federal Funds Rate is "...the target interest rate set by the FOMC at which commercial banks borrow and lend their excess reserve to each other overnight. (Chen, 2020). The Federal Funds Rate changes eight times a year when the FOMC meets and the rate is set based on prevailing economic conditions (Chen, 2020). The Federal Funds Rate can influence short-term interest rates on things such as consumer loans and credit cards (Chen 2020). The Federal Funds Rate impacts the stock market as well (Chen, 2020).

Looking at the graph, we can clearly see that the Effective Federal Funds Rate and the suggested Federal Funds Rate from the Taylor Rule are similar. However we can also see some deviations between the two during various time periods. For example looking between 1990 and 200 we can clearly see a discrepancy between the two. The Taylor Rule suggested for there to be a decrease in the Federal Funds Rate but the Effective Federal Funds Rate actually increased during this period. Another point of discrepancy is around 2010 during the time of the Great Recession. We can see that the both the Taylor Rule and the Effective Federal Funds Rate had a downward spike. The Taylor Rule was quick to recover from this downward spike and saw an upward spike right after this, but the Effective Federal Funds Rate did not recover as quickly. The Effective Federal Funds Rate actually stayed around 0 for a couple of years and did not start to increase from this until fairly recently. Interestingly enough, the rate was dropped back down to between 0% to 0.25% due to the COVID-19 pandemic (Federal Reserve, 2020).

Since these discrepancies only exist over relatively short periods of time it does look like the Federal Reserve uses the Taylor Rule as a guide. The Federal Reserve does not follow the Taylor Rule directly but looks at it to see in which direction the Federal Funds Rate should be heading. If the Taylor Rule indicates a decrease in the Federal Funds Rate then the Federal Reserve will look to decrease the Effective Federal Funds Rate as well but maybe not to the exact value that is calculated by the Taylor Rule. The same is true when the Taylor Rule indicates an increase in the Federal Funds Rate. When the Federal Funds Rate deviates from the Taylor Rule it is most likely due to factors that are not incorporated into the calculation of the Taylor Rule.

References

Chen, J. (2020, April 23). Federal Funds Rate Definition. Retrieved from https://www.investopedia.com/terms/f/federalfundsrate.asp

Federal Reserve issues FOMC statement. (2020, March 15). Retrieved from https://www.federalreserve.gov/newsevents/pressreleases/ monetary20200315a.htm