# The Inefficacy of Loose Monetary Policy

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#### Abstract

Based on U.S. macroeconomic data from the past 30 years, it appears that the loose monetary policy of maintaining low interest rates did not effectively encourage businesses and consumers to increase their purchases. Despite the intent of the policy to stimulate demand for goods and services, it instead had an unexpected effect on the financial sector by driving up demand for assets, which led to inflation in equity and real estate prices. As a result, a loose monetary policy is unlikely to be an effective strategy for countering a recession, which contradicts the working assumption of the central banks around the world.

**Keywords:** monetary policy, central bank

JEL classification: E50, E52.

#### 1. Introduction

Over the past 30 years, the Federal Reserve of the United States (the Fed) and the Bank of Japan (BoJ) have implemented loose monetary policies. These policies have involved reducing short-term interest rates and lowering long-term interest rates through quantitative easing (QE), which involves buying government and corporate bonds. The main aim of these policies was to encourage financial institutions to lend more and thereby stimulate economic activity with low interest rates (Note 1).

Now, with ample empirical data available, it is possible to evaluate whether these policies were successful in boosting aggregate demand (Note 2). This paper seeks to examine the impact of loose monetary policies on aggregate demand, financial asset prices, and the price inflation of goods and services.

# 2. The Impact of Loose Monetary Policy on Aggregate Demand

It is commonly believed that implementing a loose monetary policy with low interest rates will incentivize individuals to increase their purchases of goods and services, and thereby increase aggregate demand.

This is contradicted by Figure 1, which shows that the period of low Fed funds rates from 2010-2020 actually corresponded with lower GDP growth rates compared to the period of higher Fed funds rates from 1990-2000. Therefore, it appears that the policy of lower interest rates did not effectively produce a significant increase in GDP growth rate in the United States.

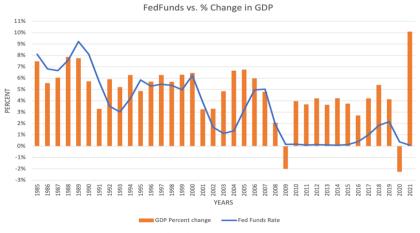


Figure 1. Fed fund rate vs. % change in GDP

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Figure 2A shows that the loose monetary policy implemented in the decade from 2010-2020 did not result in a greater increase in consumer spending in the United States compared to the previous decade from 1990-2000. Similarly, during the loose monetary policy period from 2000-2006, which occurred between the bursting of the internet stock bubble and the outbreak of the Sub-prime Mortgage Crisis, consumer spending did not experience greater changes compared to the years immediately preceding it.

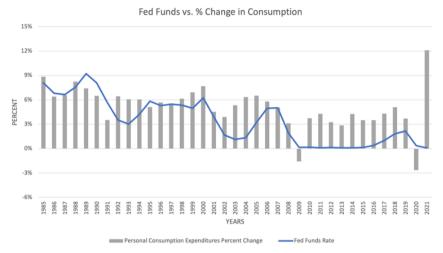


Figure 2A. Fed fund rate vs. % change in consumption

According to Figure 2B, the United States' business spending on capital goods did not experience significant growth during the period of lower interest rates from 2010-2020, as compared to the period of higher interest rates from 1990-2000. Adrian and Shin (2010), and Jimenex et al. (2014) pointed out this earlier. In addition, there was no significant increase in mergers and acquisitions (M&A) activity during the low interest rate periods in the U.S., as indicated by Classens et al. (2012), and Maddaloni and Pevdro (2011).

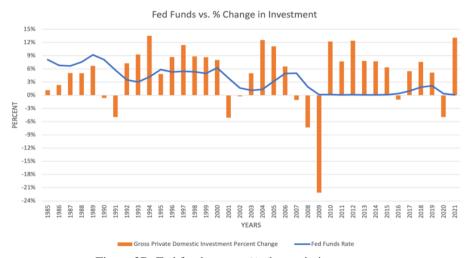


Figure 2B. Fed fund rate vs. % change in investment

Despite the common belief and policy intention, the loose monetary policy implemented in recent decades did not lead to an increase in spending on goods and services by either businesses or consumers. As a result, the effectiveness of a loose monetary policy with low short-term interest rates in stimulating aggregate demand is highly questionable.

# 3. The Impact of Loose Monetary Policy on Behaviors of Businesses and Consumers

There are two possible explanations for why the period of lower interest rates did not coincide with a higher GDP growth period. The first explanation is that GDP growth rates during the period of lower interest rates would have been even lower had the Fed not pursued loose monetary policy. The second explanation is that the actual impact of the loose monetary policy on aggregate demand was inconsistent with the intended policy goal

of the Fed.

It could be argued that the first explanation may be invalid because the rational behavior of businesses and consumers during periods of low interest rates does not support the working premise of the Fed. For example, while the discounted value of future incomes from investing activities is greater when the discount rate is lower, other factors such as confidence in earning projected future after-tax net incomes are also relevant to businesses' investment decisions. Therefore, the loose monetary policy of low interest rates failed to incentivize risk-taking by the business sector.

Consumers, on the other hand, did not increase their spending in response to lower interest rates for two reasons. Firstly, lower interest rates did not increase their purchasing power or disposable income after taxes. Secondly, consumers lacked the urgency to make purchases because the opportunity cost of postponing them was low, as the inflation rate was also low. Instead, Figure 3 shows that US consumers poured their disposable incomes into mutual funds, seeking a higher rate of return on their savings during prolonged periods of lower interest rates, as Eggertsson et al. (2019) argued.

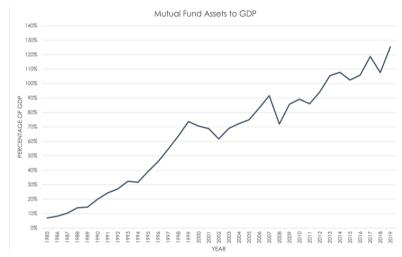


Figure 3. Mutual fund assets vs. GDP

### 4. The Impact of Monetary Policy on Asset Price

Given the empirical evidence that loose monetary policy had no significant impact on aggregate demand, the prolonged policy in the U.S. economy did have consequences. One such consequence was the creation of a favorable environment for novice investors and speculators to enter the market for stocks and real estate, as hypothesized by Minsky (1992).

Responding to changes in interest rates, these investors bought and sold these assets, leading to a sharp rise in the S&P 500 index in the 1990s, as illustrated in Figure 4. However, the Federal Reserve's decision to raise the Fed funds rate in December 1998, reversing the long-standing easy monetary policy, resulted in the burst of the Dotcom Internet Bubble in 2000, highlighting the risks associated with prolonged loose monetary policy.

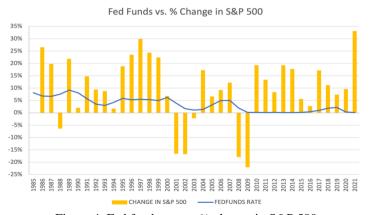


Figure 4. Fed fund rate vs. % change in S&P 500

Similarly, Japan experienced a relationship between its monetary policy and stock prices. In response to the sharp appreciation of the Japanese Yen under The Plaza Accord of 1985, the Bank of Japan (BoJ) adopted a loose monetary policy in 1985 to counter the negative impact on the export-driven Japanese economy. As illustrated in Figure 5, in the following 5-year period ending in 1989, the Nikkei 225 index increased by over 300%. However, in 1989, the BoJ raised interest rates to mitigate asset price inflation. This reversal of the monetary policy soon led to the burst of the asset price bubble in 1990, causing the Nikkei to precipitously fall by almost 40%. Unfortunately, in the subsequent three decades, the Nikkei index has not yet fully recovered from the significant loss.

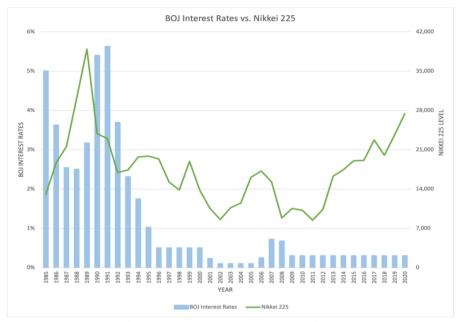


Figure 5. BOJ interest rate vs. Nikkei 225

During the period of extremely low interest rates between 2000 and 2005, U.S. residential housing prices experienced a sharp increase as the Federal Reserve once again adopted and maintained a loose monetary policy following the burst of the Dotcom stock market bubble in 2000. One explanation for this real estate price inflation is that the low cost of borrowing money encouraged U.S. consumers to speculate in the real estate market with borrowed money. As a result, the appreciation of real estate prices further drove up housing prices. However, in 2005, the Fed began reversing its loose monetary policy and shifted back to a tight monetary policy. This reversal was followed by a sharp fall in real estate prices, leading to the Subprime Mortgage Crisis of 2007. Figure 6 illustrates the interplay between interest rates and the U.S. real estate index. Similar consumer behavior in the real estate market was also observed in Europe (Note 3).

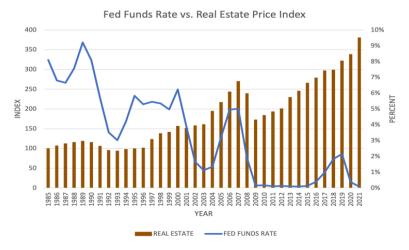


Figure 6. Fed fund rate vs. real estate price index

The evolution of asset price inflation and subsequent collapse over the past three decades indicates a strong link between monetary policy and asset price inflation. The adoption of loose monetary policy, characterized by low interest rates, supported the inflation of asset prices, particularly in the stock and real estate markets in both Japan and the U.S. However, when the central bank eventually reversed its prolonged loose monetary policy to counter the asset price inflation, it resulted in an abrupt end to the asset price inflation, often leading to a significant crash. For example, this is evident in the collapse of the Nikkei index in 1990, the burst of the Dotcom Internet bubble in 2000, and the outbreak of the Sub-prime Mortgage Crisis in 2008. The implication of this trend is that monetary policy has a causal impact on asset prices.

# 5. The Effect of Loose Monetary Policy on General Price Inflation

The recent asset price inflation cannot be attributed to overall price inflation resulting from a loose monetary policy. The data on general inflation rates of goods and services from 1985 through 2020 indicate that despite the adoption of loose monetary policy, there was a scanty impact on the general price inflation for decades. Figure 7A illustrates the absence of a tight relationship between the general price inflation rate and the Fed funds rate. Therefore, the recent asset price inflation cannot be explained by overall price inflation.

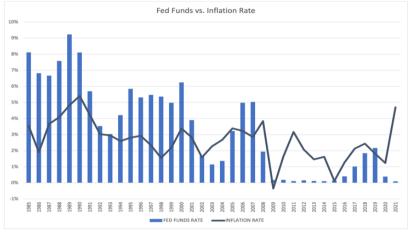


Figure 7A. Fed fund rate vs. inflation rate

Monetarist economists generally hold the belief that an increase in the net money supply (i.e., the nominal growth in money supply less the growth of GDP) will lead to a higher inflation rate (Note 4). However, Figure 7B indicates that there has been no close relationship between general price inflation and the net increase in money supply (i.e., the percentage increase in M2 less the growth rate of GDP) for decades, until 2021 (Note 5).

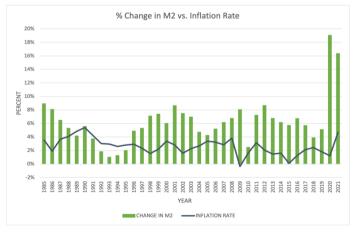


Figure 7B. % change in M2 vs. inflation rate

It is not necessarily the case that monetarists are wrong about the causal relationship between the net money supply and general price inflation. However, the lack of a close tie between the two variables in the decades prior to 2021 suggests that the relationship may be more complex than initially thought.

There are several possible explanations for the breakdown in the causal link between the net money supply and general price inflation. One explanation is that the enormous international trade deficit of the U.S. in recent decades may have dampened inflationary pressures on goods consumed in the U.S. Another explanation is that changes in the methodology of measuring inflation may have inadvertently resulted in a lower inflation rate. Finally, it is possible that the prolonged loose monetary policy had a greater impact on asset price inflation rather than on the general price inflation of goods and services, as argued by Svensson (2014) and Coibion and Gorodnichenko (2015).

# 6. The Link between GDP and Asset Price

Was the growth of the GDP, not the loose monetary policy, responsible for the price inflation of assets? While GDP growth can certainly have an impact on asset prices, the data presented in Figure 8 suggest that it is not the main factor at play. The relationship between GDP growth and asset price inflation appears to be fuzzy at best, with asset prices often outpacing GDP growth by a significant margin. This suggests that other factors, such as loose monetary policy, may be playing a larger role in driving asset price inflation.

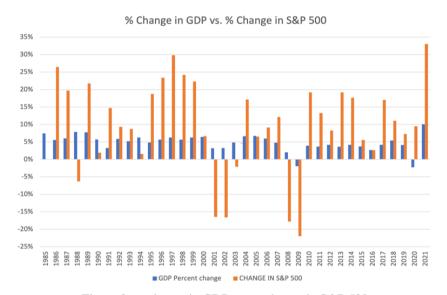


Figure 8. % change in GDP vs. % change in S&P 500

# 7. The Implications for Government Policy

The macroeconomic data from the past three decades shows that loose monetary policies did not lead to rapid GDP growth or high general price inflation. Instead, these policies caused excessive asset price inflation relative to GDP growth, leading to a net result of only asset price inflation.

The Japanese experience with loose monetary policy also provides a cautionary tale for any central bank considering this approach. Following the market crash of 1990, the Bank of Japan lowered borrowing costs to near 0% in the hopes of stimulating spending. However, Japanese consumers and corporations chose to pay down debt rather than borrow and spend, depressing overall price levels and leading to a vicious deflationary cycle lasting for decades, agues Koo (2011) (Note 6). The consequences of rising interest rates in the US in 2022 and 2023 could be similarly dire (Note 7).

Given the empirical evidence that loose monetary policy is ineffective in increasing aggregate demand, an expansionary fiscal policy may be a preferred tool in the event of a severe recession. However, the caveat against Keynesian expansionary fiscal policy is that massive deficit spending over the last three decades failed to stimulate aggregate demand in Japan. Therefore, the only economically viable and sustainable policy option for countering recession may be an expansionary fiscal policy of lower tax rates. This non-interventionist approach could prompt consumers and businesses to increase spending with their increased after-tax earnings.

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### **Notes**

- Note 1. "Asset Price Inflation and Monetary Policy" keynote speech by Yves Mersch, Member of the Executive Board of the ECB, January 2020, https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200127~f
- Note 2. The source of the data for all graphs, except Figure 6, is the Federal Reserve Bank of St. Louis. The data for Figure 6 are from The Bank of Japan and Nikkei 225 Official Site. The S&P500 index data for Figures 5 and 8 are from Finance Yahoo.
- Note 3. ECB (2019), Financial Stability Report, November
- Note 4. "Milton Friedman speaks: Money and Inflation" Recorded at University of San Diego & San Diego Chamber of Commerce, 1979, https://youtu.be/B\_nGEj8wIP0
- Note 5. The U.S. government sharply increased its deficit spendings in 2020 and 2021 to neutralize the recession caused by the Covid Pandemic. The quantitative easing (QE) by the Fed to finance the huge amount of deficit spendings, roughly three trillion dollars or 15% of the GDP of the year, did push up the rate of general price inflation in 2021.
- Note 6. The Japanese economy has all but stopped growing since 1990, despite the low interest rates by the BoJ and the huge deficit spending by the Japanese government. Japanese Government Budget, tradingeconomics.com | Ministry of Finance, Japan.
- Note 7. What had happened in Japan when the BoJ popped the asset price bubble in 1990 may be a precursor to what happened for the U.S. in 2022. The high rates of asset price inflation in the U.S. relative to the moderate growth rate of the GDP in the several years prior to 2021 had set the stage for a major asset price correction like the Japanese experience in 1989. The Fed was forced to raise the interest rates in 2022 as the low interest rate in the U.S. was unsustainable as was the BoJ in 1989.

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