

Analyzing U.S. Macroeconomic

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Abstract: The Federal Reserve's recent movement to control inflation has brought up the most urgent problems for investors. As a result of households accumulating money throughout the early epidemic when they were stuck at home and receiving substantial assistance from the U.S. government, many can now make large purchases. However, the recent lockdowns in China are aggravating supply chain bottlenecks, and the conflict in Ukraine is reducing global food and fuel supplies. Due to this imbalance between supply and demand, the consumer price index is rising. U.S. headline inflation is currently reaching its multi-decade peak, and a tight labor market requires stricter monetary policy to control economic growth.

Keywords: federal reserve, U.S. government, inflation

1. Introduction

It explores the economic situation of the United States from 2000 to 2022, focusing on inflation, unemployment, GDP growth, and government policy. The data and statistics from various sources have been used to analyze the country's economic conditions over the years. We discuss how inflation affects the purchasing power of individuals and the economy in general and how unemployment creates a ripple effect on the economy. It also examines how events like the COVID-19 pandemic have impacted GDP growth. Additionally, we review the government policies and initiatives taken to tackle the economic situation, including the Federal Reserve's vaccination efforts and monetary policies. Overall, we provide a comprehensive view of the financial situation of the United States and how it has evolved over the years.

2. Inflation

From 2000 to 2022, according to our inflation calculator, during this 22-year period, except that the inflation rate in 2009 was less than 0% and the inflation rate in 2021-2022 was higher than 5%, the inflation rate in the rest of the years was relatively average, which proves that the economic situation of United States from 2000 to 2022 is still reasonably good. Nowadays, inflation in the United States is high. Higher prices for essential items such as fuel and food may become prohibitively expensive for people whose salaries are not expanding as rapidly. Even when their wages are rising, rising inflation makes it harder for customers to distinguish whether a particular product is getting more expensive than other commodities or just growing in line with the general

price rise. This may make it difficult for people to budget appropriately. If inflation continues for an extended period, it can lead prices to lower eventually, feeding inflation and increasing the actual worth of every dollar in your wallet.

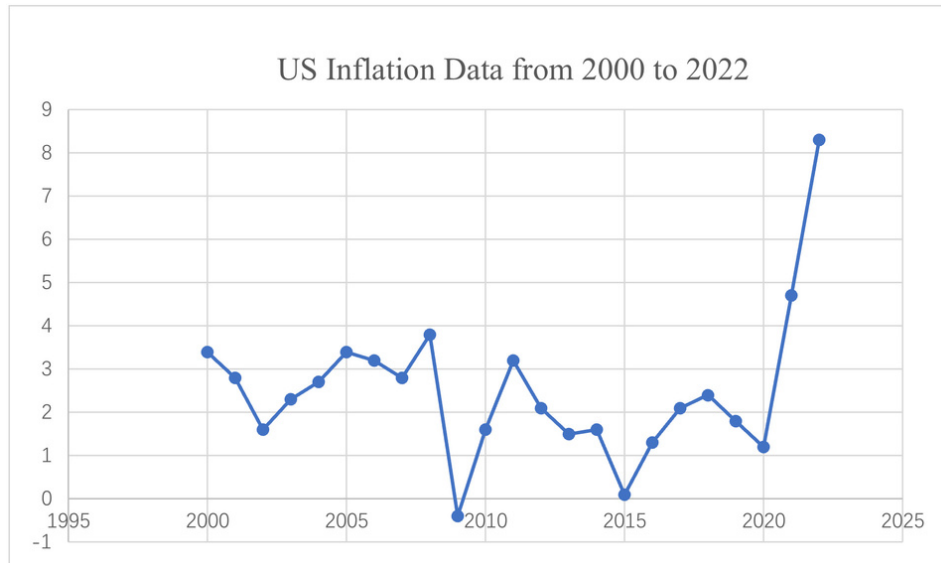


Figure 1: US Inflation Data from 2000 to 2022.

3. Unemployment

According to Investing's data, from April 2016 to August 2022, the unemployment rate in the U.S. was generally stable. The overall trend is around 4%, the only increase from April 2020 to August 2020. During these months, the U.S. unemployment rate increased significantly, reaching a peak of 14.70%. This is the shock brought about by COVID-19. When workers are laid off, their families lose earnings, and the country loses its economic contribution through goods or services that could have been created. Unemployed workers also lose purchasing power, which can lead to the layoff of other workers, generating a ripple effect across the economy. Unemployment impacts even those who are currently working in this way.

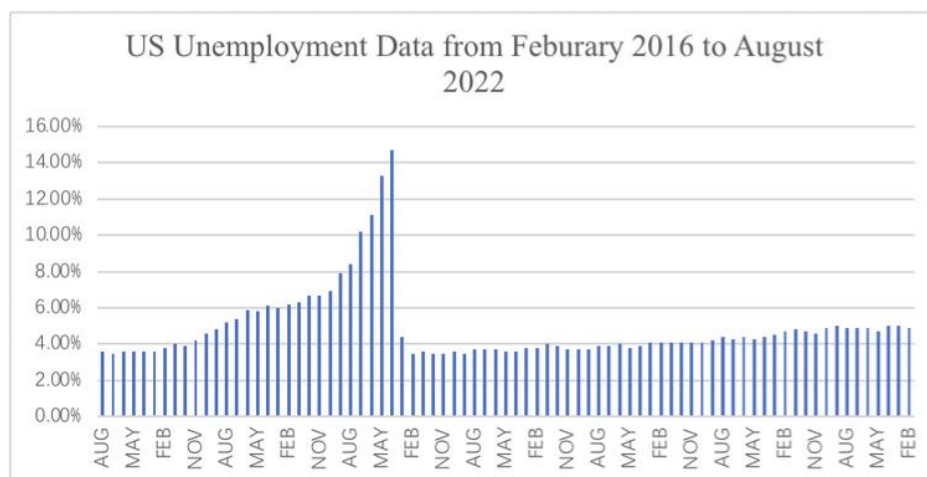


Figure 2: US unemployment data from February 2016 to August 2022.

4. GDP Growth

According to data from trading economics, the GDP growth rate of the United States in the past ten years has generally been around 1-5%. When the lowest was in July 2020, the US GDP decreased by 31.2%. At the same time, the US GDP will increase by 33.8% in 2021. Compared with the beginning of 2020, the decline in July 2021 is 7.94%. After calculation, in July 2022, the US GDP rose by 10.42% compared with January 2020. When people are laid off, their families lose income, and the country loses the contribution they could have made to the economy through goods or services. Unemployed workers also lose purchasing power, which can lead to the layoff of other workers, generating a ripple effect across the economy. Unemployment impacts even those who are currently working in this way.



Figure 3: US GDP growth.

5. Government Policy

Reaffirming his commitment to leading international and coordinated vaccination efforts, Biden announced that the United States would donate 80 million U.S. vaccines by the end of June, including the previously announced 60 million doses of AstraZeneca vaccine, most minor another 20 million doses of U.S. licensed vaccines [1]. The United States will continue to provide from our excess supply when available. Today's announcement is the latest phase of the government's efforts to respond to COVID-19 worldwide [2]. In the coming weeks, the United States will use its leadership to organize a global effort with our G-7 allies, the European Union, COVAX, and others, to end this epidemic. In particular, we seek specific, achievable commitments from other government and private sector partners to increase vaccine supplies, increase the production and manufacturing of vaccines and raw materials, get vaccines into the hands of people around the world, and provide health security assistance to save lives, stop the spread of COVID-19, shorten the life of the pandemic, and achieve economic recovery [1].

By the end of June 2021, the United States will have delivered 80 million doses of immunization vaccine to countries fighting the pandemic. This includes all 60 million doses of the AstraZeneca vaccine already produced and at least another 20 million doses approved for use in the United States. We will continue to donate from our excess supply for as long as we can get it [2].

The Treasury Department is working with IMF management and other members to distribute \$650 billion in SDRs to IMF members to help the global recovery from the COVID-19 crisis, increasing demand for U.S. exports and supporting U.S. businesses and U.S. job creation [1].

U.S. monetary policy includes Federal Reserve activities and communications to promote maximum employment, stable prices, and moderate long-term interest rates - economic goals delegated to the Fed by Congress [3].

As a result of the economic impact of the COVID-19 outbreak, the Fed lowered short-term interest rates to zero on March 15, 2020, and resumed large-scale asset purchases. (Often referred to as quantitative easing or QE) [4]. The Fed will purchase \$80 billion of U.S. Treasuries and \$40 billion of agency mortgage-backed securities from June 2020 through October 2021 [4]. (MBS). Bond purchases influence market expectations about the future direction of monetary policy. The Fed's quantitative easing is interpreted as a signal that the central bank plans to keep interest rates low for an extended period [5].

In 2021, the U.S. rebounded quickly from the epidemic, with significant economic growth, increased employment, and higher inflation throughout the year. The Federal Open Market Committee (FOMC), the Fed's policy-setting group, announced at its November 2021 meeting that its tapering test had been passed [6]. In November and December, the Fed began slowing its monthly purchases of Treasuries by \$10 billion and MBS by \$5 billion.

Inflationary pressures, rising interest rates, irregular economic activity, and market volatility all contribute to the possibility of a U.S. recession.

So far this year, the Fed has raised its policy rate by 1.5% and could increase it by another 2% or 2.5% in the coming months. It is also selling its holdings of U.S. Treasuries and mortgage-backed securities. As a result, borrowing costs have risen sharply. For example, the average fixed rate on a 30-year mortgage has jumped from 3% to between 5% and 6% since the beginning of the year [7]. At the same time, the government is cutting back on spending as some pandemic-era aid programs end.

Higher mortgage rates will depress housing values, which have risen sharply since the pandemic's start. Finally, weakening demand will raise the unemployment rate to about 5% by the end of 2023, implying wage cuts.

Global variables such as Russia's war with Ukraine, an ongoing pandemic, and the risk of another Chinese shutdown will impact U.S. economic progress. In addition, the more extended inflation remains high, the higher the chance that inflation expectations will increase, reflected in wages and prices. In this case, the Fed will need to take firmer action to reduce inflation, raise interest rates and keep them high for an extended period. This would further slow growth and increase unemployment [8].

6. Connect to the Macro Trend

A macro trend currently affecting the United States is PCE inflation. The Personal Consumption Expenditure (PCE) figure represents the total amount spent by Americans. This is an indicator of the overall health of the economy. The Federal Reserve often sets an annual inflation target of 2%. Recently, however, inflation has exceeded the Federal Reserve's target level. In June 2022, the price of core PCEs, excluding food and energy, increased by 0.6% compared to the previous month, higher than the market forecast of 0.5% [9]. Before the market expected 4.7%, the Fed's preferred inflation indicator, the annual interest rate, rose from 4.7% to 4.8% last month. Rising prices have caused a lot of trouble for American consumers. Without COVID-19 subsidies, individual consumers cannot afford higher food and gasoline prices. Consumer sentiment has declined, and business activity has slowed.

Another major event affecting the United States is that the yield of treasury bond bonds soared to a cyclical high. The return investors receive from their bond investments is called the bond yield. As the price of a bond rises, its yield decreases because there is an inverse relationship between price and yield. Concerns that the Federal Reserve may need to tighten policy to control inflation significantly have triggered a global bond panic. The cost of US treasury bond bonds fell, pushing the benchmark interest rate to its highest level in more than a decade. The yield of a 10-year treasury bond rose 13 basis points to 3.28%, exceeding the peak in 2018 and reaching the highest

level since 2011 [10]. The rise in US bond yields will cause some international capital to flow to the US. The sharp rise in bond yields means an increase in the supply of dollars. The size of US bonds is enormous. The faster interest rates are raised, the quicker depreciation will occur. The rise in US bond yields first affected US fiscal pressure. To solve the government's financial crisis, the United States has issued many bonds, and the rising yield means that the government's future interest repayment burden will increase. As the primary holder of a US treasury bond, the total amount of US treasury bonds held by foreign buyers will affect the credit expansion of the US. Therefore, they are a critical factor in the rise and fall of the US dollar exchange rate. If overseas investors' demand for US treasury bonds still stagnates and US treasury bonds are further sold off, it may trigger a crisis in the US domestic repo market, and the US dollar may fall.

At the beginning of COVID-19, the United States provided significant funds to the American public, stimulating consumption and good economic data. At the same time, due to substantial funds in the market and excellent financial statements of listed companies, the US stock market rose sharply after a short period of volatility for three months, and the Nasdaq index doubled in 12 months.

The sharp rise in the US stock market undoubtedly made more money for US shareholders and stimulated consumption more. However, the US real economy is impoverished, with the US trade deficit hitting a record high. With the surge in US stock prices, there is increasing pressure on the US stock market to raise interest rates, but the US real economy cannot. Raising interest rates will worsen the US real economy, but it will not increase interest rates. The US price index CPI is increasingly high, and There is a risk of economic crisis.

Judging from the performance of recession trading in mid-June, we saw a corresponding adjustment in the United States in early August. Since the US Federal Reserve meeting in mid-June raised interest rates by 75 basis points, the US stock market and bond market have begun to experience emotional repair: the yield of 10-year US bonds has dropped from 3.5% to 2.5%, while the S&P 500 index has risen nearly 20% from the bottom, reaching the level around the beginning of May. The rising stocks and bonds pattern coincides with loose liquidity, especially after economic data became significantly weak and the market began pricing the Federal Reserve, which quickly stepped in to address the economic downturn.

However, since the beginning of August, there have been some changes in the situation. The first turn in US bonds: as of August 1, the interest rate of 10-year US bonds had risen from 2.5% at the bottom to 3%, and the interest rate of two-year US treasury bond bonds had risen from 2.9% to 3.3%; Subsequently, the US dollar also began to rebound: as of August 12, the US dollar index had been increased from around 105 to over 109, which had brought some pressure to earlier rising industrial metals and gold; As of August 15th, the US stock market also began to show signs of falling from its peak.

Stronger-than-expected corporate performance and guidance, coupled with optimism that the Federal Reserve is struggling with decades of high inflation and interest rate hikes but may avoid harming the economy, have driven the S&P 500 index up about 13% from its low in mid-June. Analysts expect the S&P 500 index to continue to close higher this year.

According to the latest survey by Reuter's strategists, the S&P 500 index will be slightly higher than its current level by the end of this year after rebounding from a bear market low. According to the median forecast of nearly 50 strategists surveyed by Reuters over the past two weeks, the Standard Poor's 500 Index will close at 4280 points this year, 3.4% higher than Monday's 4137.99 points. This median forecast is lower than the Reuters survey conducted in late May. According to the median estimate in the latest Reuters survey, strategists predict that the S&P 500 index will continue to rise in 2023, reaching 4408 points by the middle of the year. According to a study, the Dow Jones Industrial Average will close at 34200 points this year, up about 3.4% from Monday's

close. The S&P 500 index has fallen about 13% so far this year since the global sell-off triggered by the epidemic in 2020. Slightly more than half of the strategists surveyed expect market volatility to rise over the next three months, not decline.

Investors are concerned about whether profit growth is fast enough to support stock valuations, especially given the recent stock market rebound. According to Luft's data, the 12-month expected P/E ratio of the Standard Poor's 500 Index is around 18 times, compared to 22 times at the end of December. The long-term average P/E ratio is about 16 times. Therefore, I do not recommend that investors invest most of their funds in the US stock market. The instability and continuous decline of the US stock market make its upward opportunities very unstable and must be treated with caution. However, for some investors who want to speculate, the next stock market trading day is also an unbeatable opportunity with high risks and high returns [7].

Nevertheless, in the long run, the downward trend in the US stock market remains unchanged. The Nasdaq has plummeted 28.1% this year, the S&P 500 has fallen 20.5%, and the Dow Jones has fallen 15.7% [11]. Many technology stocks also fell. For example, this year, Tesla's stock price has fallen 32%; Apple's stock price fell 15%; Microsoft decreased 23%, etc.

7. Conclusion

We discuss the current economic situation in the United States, covering inflation, unemployment, GDP growth, and government policy. The inflation rate was relatively regular from 2000 to 2022, but it has increased significantly since then, making it difficult for people to budget. The unemployment rate was generally stable from April 2016 to August 2022, with a peak of 14.70% from April to August 2020 due to COVID-19. The GDP growth rate of the United States in the past ten years has generally been around 1-5%, with a significant decline in July 2020 and a rise of 33.8% in 2021. The government's policy includes a commitment to donate 80 million U.S. vaccines by the end of June 2021, the distribution of \$650 billion in SDRs to IMF members, and Federal Reserve activities to promote maximum employment, stable prices, and moderate long-term interest rates. The significance of this research lies in providing an understanding of the current economic situation in the United States and how government policies and external factors affect it. Future research could analyze the effectiveness of government policies in promoting economic recovery and stability in the United States.

References

- [1] The White House. "The White House." *The White House, The White House*, 2017, www.whitehouse.gov/.
- [2] "Brookings - Quality. Independence. Impact." *Brookings*, 2019, www.brookings.edu/.
- [3] International Monetary Fund. "International Monetary Fund - Homepage." *IMF*, 2022, www.imf.org/en/Home.
- [4] "Striving for a Safer World since 1945." *Federation of American Scientists*, fas.org/.
- [5] "NABARD - National Bank for Agriculture and Rural Development." *Www.nabard.org*, www.nabard.org/.
- [6] "Santa Rosa, ca | Official Website." *Www.srcity.org*, www.srcity.org/. Accessed 22 Mar. 2023.
- [7] "RSS Rabbit." *Rssrabbit.com*, rssrabbit.com/. Accessed 22 Mar. 2023.
- [8] "LewRockwell." *LewRockwell.com*, 2019, www.lewrockwell.com/.
- [9] "Perusahaan Asuransi Allianz Indonesia." *Www.allianz.co.id*, www.allianz.co.id/. Accessed 22 Mar. 2023.
- [10] "News, Sport and Opinion from the Guardian's Global Edition | the Guardian." *The Guardian, The Guardian*, 2015, www.theguardian.com/international.
- [11] "HubbardOBrienEconomics.com Blog." *HubbardOBrienEconomics.com Blog*, hubbardobrieneconomics.com/. Accessed 22 Mar. 2023.