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Macro economic report of the U.S.

Paul Adrian Kristy Howard

Status of the U.S. Economy

Introduction

This year, the economy of the US has experienced a vibrant cycle. Under the fluctuated global situation, many investors are struggled to see a clear view of the current economic world and its future outlook. This report aims to present the macro trend and situation on the stock market in the US. The report will analyze from various perspectives, including macro data, government policies and S&P 500 index.

Economic Data Analysis

• Inflation & Unemployment

By analyzing the data from Jan 2020 to July 2022, the inflation rate (about 1%) was relatively low over 2020 due to the impact of pandemic. From the data, the economy was recovering from May 2021 due to various monetary policies of Fed. The figure held steady at 5% in 2021, while it soared this year, from 5% to over 8%. For unemployment rate, after reaching the peak (14.7%) in May 2020, the figure kept decreasing mainly because all the industries began to recover, especially for service industry and manufacturing industry.

• GDP growth

The lowest point, -31.2%, of the past two years happened in Apr 2020 under the reason of COVID. But the overall data rose from Oct 2020, and the figure of 2021 fluctuated around 6%. The economy had falling rate of GDP again compared to 2021, at -0.9% in April 2022, but the US GDP rose considerably compared with the pandemic period.

Policy Analysis

All kinds of monetary policies were used by the US government. Since the enormous quantitative easing in the second quarter of 2020, the US economy has sustained growth despite soaring inflation. End of the year 2020, the US The Treasury steadily lowered the amount of liquidity it injected into the market by reducing its asset purchases in an effort to control inflation, while the Federal Reserve began rising interest rates in early 2022 in an effort to further reduce liquidity.

The economic stimulus measure caused higher costs for food, energy, housing, and automobiles during the pandemic, and labor shortages caused supply constraints. To further control inflation, the Federal Reserve began gradually increasing interest rates to pre-pandemic levels of 2.5% in March 2020. However, prices have remained stubbornly high. It should be emphasized that almost 70% of the US GDP is provided by consumer spending, and that high prices and poor liquidity have directly contributed to the US economy's malaise during the first and second quarters of 2022.

Current Macro Trend

American consumers usually use credit card advances to spend money, which means they lack the ability to face economic pressure. The US government's efforts to stimulate the economy by directly distributing government benefits and subsidies to consumers during the pandemic encouraged excessive overspending, which led to a sharp decline in the spending power of American consumers at a time when the government is gradually tightening the economy.

Given the relatively stable unemployment rate (3.7% on average) in the first half of 2022, and the latest addition of hundreds of thousands of jobs by the U.S. government, the unemployment rate may not rise significantly any time soon, easing supply-side pressures.

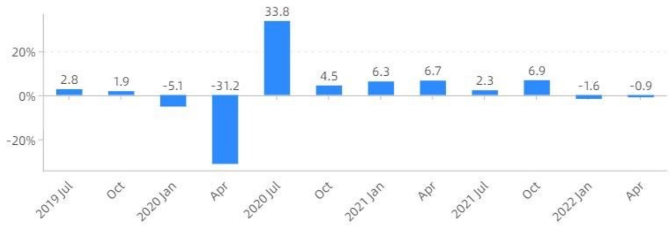
Moreover, in regards to the US Treasuries, we believe that this issue will bring nagetive effect to the economy of United States for a length of time that is predictable.

•First, we must establish that the present US Treasury debt totals $90 trillion, the vast majority of which is due to an increase in government expenditure during the pandemic.

•However, in this year the majority of treasuries will mature before the end of the year, which will have a predictable effect on the country's national cash reserves. The Fed's current cash balances have decreased to $3.3 trillion from $4.2 trillion in December of last year, according to the most recent figures.

•In light of massive maturing Treasury obligations, we are cautiously optimistic about the US government's capacity to repay. In order to pay off the debt, the United States government may distribute new Treasury bonds and then defer payment. But this is simply a temporary solution. The economy of the United States is in the midst of a debt crisis, and a severe lack of cash reserves will sink it. Debt crisis refers to the propagation of massive public debts in relation to tax revenue. It raises the possibility of continuing high inflation due to heavy government spending. Also, the debt crisis will threaten national security.

Quarter-on-quarter GDP growth rate of the U.S.



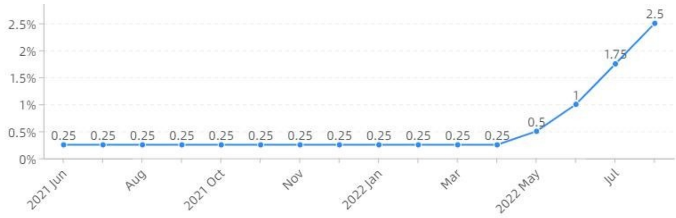
Data source: Tradingeconomics.com

GDP (Gross domestic product): The sum of all final goods produced in a country over time, it consist of consumption, investment, government spending and net exports

The increase of GDP growth rate means that the country's economic development speed is higher, on the contrary, the country's economic growth rate is slower.

Economic recession: GDP growth has fallen for two or more consecutive quarters.

Benchmark interest rate of the U.S.

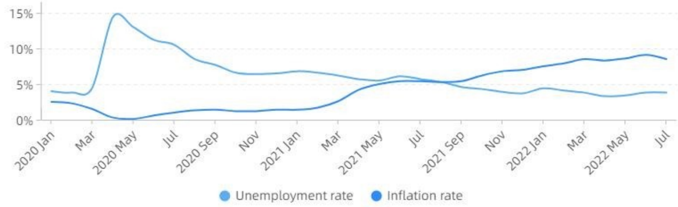


Data source: Tradingeconomics.com

Interest rate: The proportion of the borrowed capital

As a policy tool of government regulation and intervention in the national economy, a rise in interest rates reduces borrowing and increases savings, which in turn reduces market activity and cools the economy. On the contrary, borrowing is frequent, market activity increases, and economic development is stimulated

Inflation rate & Unemployment rate of the U.S.



Data source: https://beta.bls.gov/dataViewer/view/timeseries/LNU04000000

Inflation rate: Annual rate of change in the general price level of an economy

Unemployment rate: The number of people who do not have a job but are willing to work at the existing wage rate using statistical computation or estimations

QE(Quantitatively easing): After implementing the zero interest rate policy or the near-zero interest rate policy, the central bank increases the base money supply and injects a large amount of liquidity funds into the market by purchasing medium - and long-term bonds, so as to encourage spending and borrowing and stimulate economic development

QT(Quantitatively tightening): Central banks sell their accumulated assets (mainly bonds) to reduce the supply of money circulating in the economy, shrinking bloated balance sheets and slowing economic growth

National debt: The creditor's debt relationship formed by the state, on the basis of its credit and in accordance with the general principle of debt, by raising funds from the society

Unemployment is inversely related to inflation, because higher inflation means the economy is spending more and companies are cutting fewer jobs as corporate profits rise.

Generally speaking, the inflation rate which is beneficial to the national economic development should be maintained at about 1%-3%, and the national unemployment rate should be stable at 2%-4%

Macro economic report of the U.S.

The U.S. stock market

Introduction

The S&P 500 is widely considered the single best measure of the U.S. large-cap stock market, with $5.4 trillion in assets invested in the index. It includes the 500 top publicly traded companies in the U.S. and accounts for about 80% of the market's total value, it can fully reflect the trend of American economic development

Stock Market Performance

The funds provided by US government have built good GDP data and stock market performance. Due to over $6 trillion released into stock market, S&P 500 performed well in the global market during the pandemic.

The figure shows the S&P 500 index historic fluctuation from January of 2020 to August of 2022. It is obviously that the sudden expansion of the global COVID-19 pandemic in the first of 2020 have bring severely damage to the US stock market. In order to recover and boost the US economy and stock market, the US government have started to use several policy, like the quantitative easing used in the second quarter of 2020, and the fact proof these policies have effectively stimulated the US economy and stock market. But the high inflation rate have force US government increase the interest rate to reduce liquidity and alleviate the problem. In the March of 2022, the further rise of interest rate by Federal Reverse have led to the fall of US stock market.

Although the US stock market have recovered from the trauma of pandemic, the problem is, the real economic situation of US is still weak. If the high consumption and stock price are not controlled, CPI index in the economy will soar, which pushes inflation rate higher. That raised the risk of stagflation. While if US government uses higher interest rate to control stock market, the real economic situation will be worse. GDP may have negative growth and economic recovery possibly have bad consequences due to the change of interest rate. How to balance the inflationary pressure and economic recovery is the key.

Retail Industry Outlook

According to the US National Statistics Office, total industry sales will increase 17.9% annually to US$6.6 billion in 2021, which is more than double the average growth rate over the past three decades and the fastest rise in nearly three decades.

Despite a significant decrease in the middle of the year 2020, the overall tendency of the market growth shows a positive situation. One of the Big Four accounting firms, Deloitte, published its 2022 U.S. Retail Industry Expectations report in August, in which it boldly predicted that the U.S. retail industry's profitability would increase by approximately 5% in the coming year.

However, the job situation in the United States continues to have a substantial impact on the retail sector. As the sector grows and evolves, there are numerous employment openings and labor shortages. In July alone, the retail industry in the United States posted 757,000 job opportunities. To recruit personnel, the majority of U.S. corporations have increased the base compensation of workers. Amazon.com, one of the heavyweights, has increased its hourly minimum pay to $14. This action will greatly increase the retail sector's daily operating expenditures and substantially limit the sector's future expansion. We feel that the retail industry in the United States has reached a stage where it will be difficult for companies to continue to raise their revenues.

VIX index

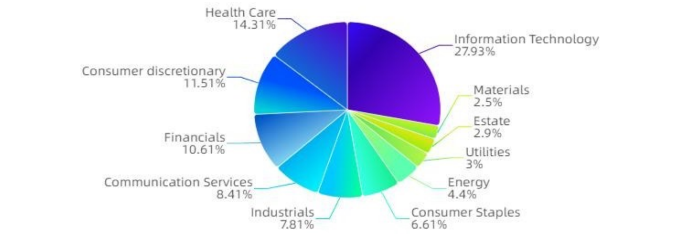
The VIX index is a measure of expected stock market volatility based on S&P 500 index options and expresses consumers' views on the future direction of the S&P 500 index.

Combined Federal Reserve raise interest rate policy with the VIX chart for past 6 months, The VIX index has risen significantly after every Fed rate hike, such as in March, May, June and July of 2022. At the same time, S&P 500 have fall when the Federal Reserve have raise the interest rate.

Therefore, according to the above data, it can be inferred that the rise of fear index represents the indecision of investors on the future stock market and the decline of consumer confidence, which leads to the decline of the American stock market. Even with stock indexes still up in the first half of the month, the Fed's move to raise interest rates is bound to eventually cause stocks to fall. But investors in the stock market can't predict exactly what the Federal Reserve will do next.

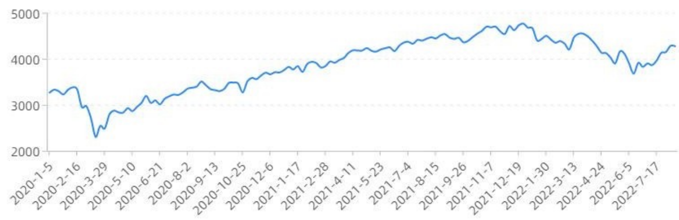
U.S. Federal Reserve officials on Tuesday reiterated their support for further rate hikes to tame inflation, Reuters wrote in an Aug. 30 article. Meanwhile, New York Fed President John Williams claimed that "based on what I'm seeing in the inflation data and the economy, with interest rate reductions expected to be some time off, the central bank will likely need to keep its policy rate at just above 3.5% and on hold until late 2023."

Composition of S&P500



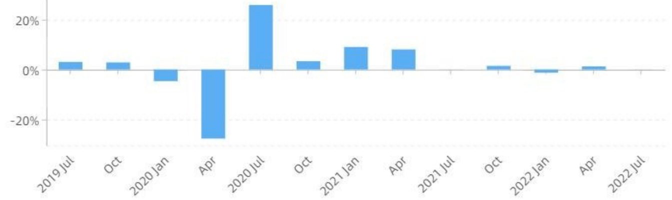
Data source: https://www.spglobal.com/spdji/zh/indices/equity/sp-500/#data

Trend of index S&P500



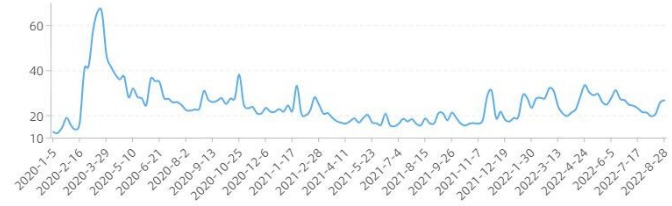
Data source: https://cn.investing.com/indices/us-spx-500-historical-data

Trend of the U.S. retail sales growth rate



Data source:https://zh.tradingeconomics.com/united-states/gdp-sales-qoq

Trend of index VIX



Data source: https://cn.investing.com/indices/volatility-s-p-500-historical-data

Investment advice

Overall, with the Federal Reserve raising interest rates to 2.5% in July, the S&P 500 has started a downward trend in August amid still-high inflation pressures.

We expect the S&P 500 to continue to decline over the next 1-2 months and recommend that investors consider a large short position in the S&P 500 during this time frame, but do not recommend adding to the position. In the next three to six months, if Fed rate hikes reduce inflation in the United States, then the Fed is likely to taper quantitative tightening, the decline in the S&P 500 index will be mitigated, depending on the strength of the government's exit from the contraction of the economy.

Therefore, in the next three to six months, we recommend investors to be cautious in their investment, pay attention to the government's policy moves and consider the market confidence at the same time, in the VIX index fell, the intensity of interest rate increase and retail industry recovery under the premonent can consider the investment in the S&P500 index has the possibility of recovery, and continue to shrink the economy, Considering the lack of confidence in the market may appear larger market fluctuations, it is recommended to reduce the amount of short

Investment Outlook 2022

Ethan Lin, Michael Sun, Berry Zhang

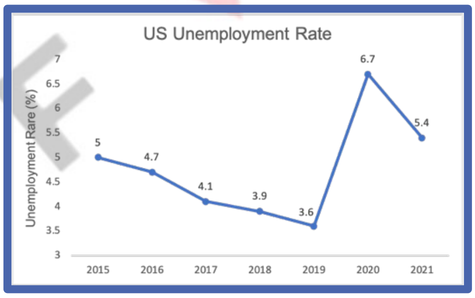
Introduction

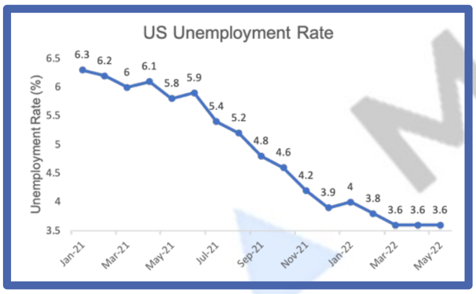
Taking U.S. economy, Main Asset Classes and Investment Strategies for 2022 as three dimensions, this macro analysis report analyzes the current situation of the macroeconomic market in recent years and puts forward predictions and suggestions for future Investment.

U.S. Economy

Unemployment rate:

From these graphs, it can be seen that between 2019 and 2020, the unemployment rate and non-agricultural employment in the United States have a rapid rise and fall. The unemployment rate has risen from 4% to 15% It will also cause economic losses and social development. At that time, the policy of the United States was to reduce the interest rate range and quantitative easing, but it would cause serious inflation. By 2021, we can find that the unemployment rate and the number of non-agricultural employees have recovered correspondingly caused by the increased amount of money printing. Also due to the influence of covid-19, prices of technology and materials in the United States have increased. So, the United States had to take the way of printing money to ease the price of goods and the cost of labor.





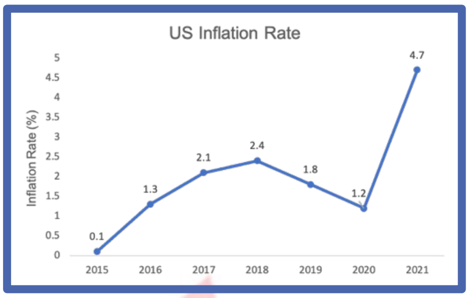
In addition, the conflict between Russia and Ukraine has been going on for three months. At present, the consumer price index (CPI) in the United States has been rising, and the rise in prices will inevitably lead to inflation. In the view of the Russian-Ukrainian war, the American people have become the victims of this war. Because they are suffering from high prices. The reason may lie in active unemployment. Judging from the current epidemic situation in the United States, many enterprises are still in a state of shutdown. If the enterprise has no source of income, the employees' income will also decrease, and even some enterprises can only pay employees some basic living wages. This is the imbalance in the market recovery. Take the current tourism industry in the United States for example.

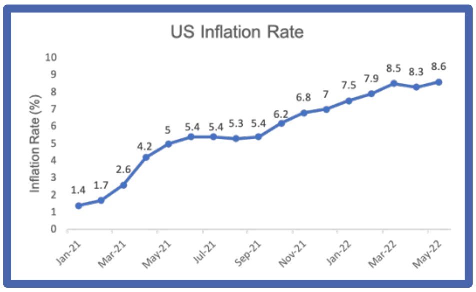
From 2020 to 2022, the U.S. tourism industry has been declining. This will lead many people in the tourism industry in the United States to resign voluntarily. There will also be a shortage of labor. Therefore, judging from the current types of workers in the United States, there is a big gap in the recovery of the employment market. In 2022, The United States should spend energy on easing inflation. Because at present, the inflation rate in the United States has been on the high side. Therefore, in the long run. In order to avoid higher unemployment and non-agricultural employment in the United States. The next step should be to cut interest rates or adjust prices to stabilize.

The second is about the current immigration problem in the United States. The United States has been reducing the number of immigrants and issuing U.S. green cards since 2020. The United States currently relies on immigrants to supplement the supply of labor. However, the current number of legal or illegal immigrants in the United States has decreased by 2 million to 3 million compared with the epidemic of last year. At the same time, it is converted by an equal proportion. The labor market in the United States will reduce by more than 8 million people. If the current actual unemployment rate is added to the 2 million people, it will be almost equal to the natural unemployment rate.

Inflation:

According to relevant statistics, the inflation rate of the US economy has exceeded 8% in the first quarter of 2022, and the trend is still expanding. China has been dumping treasuries in bulk since December 2021. In recent years, all countries in the world have been hit hard by the pandemic and its international impact. In order to safeguard its own interests, the United States has raised interest rates again and again, which puts great pressure on the countries holding US debt. That is to say, the United States wants to transfer the pressure again. However, for the debtor countries, the current situation of the United States is not optimistic, so they have to sell US debt to relieve their pressure. So far, China has sold A total of $60.8 billion of US treasuries, which is about $410 billion in RMB. The U.S. is already by far the world's most indebted nation, and its economy will eventually pay a heavy price for continuing to print money without restraint. A large number of additional issuances of Treasury bonds, originally the Federal Reserve for inflation and rescue measures, instead made the US debt into a credibility crisis.





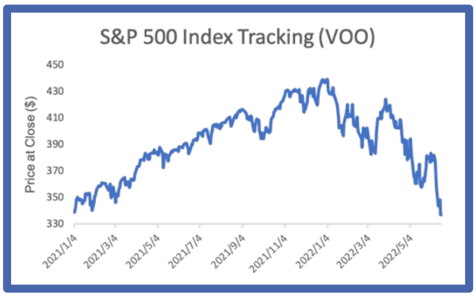
GDP:

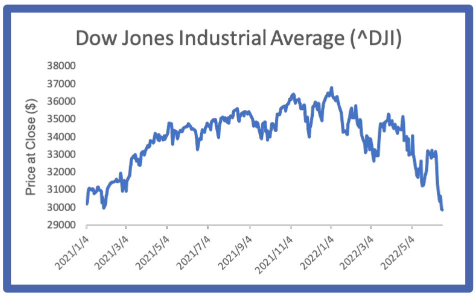
As the globe finally moves out of the pandemic recession in 2020 and moves from negative gross domestic product (GDP) growth into positive GDP growth, indicating a strong recovery. However, in 2022, the global macro-economy environment is still in a weak position, with the fear of the increasing inflation rate resulting from the excess expansionary policies during the recovery period and the Russian-Ukraine War starting in February 2022, the GDP growth in the US moves into negative territory of 1.5%.

Main Assets Classes

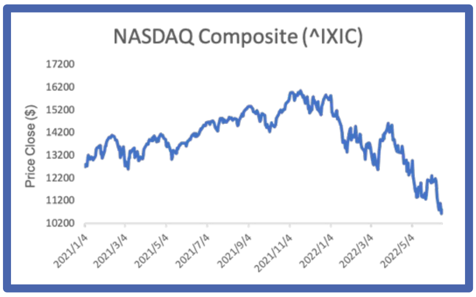
U.S. Stocks Market:

The three graphs listed below represent the three most popular and most followed stocks indicators in the U.S. stock market, with S&P 500 (VOO) tracking the performance of 500 large companies, Dow Jones Industrial Average (DJI) tracking 30 prominent companies on the stock exchange, and NASDAQ focusing on tracking stocks within the information technology sector. Initially, just after the pandemic hit, in 2020, there is a tremendous drop in the US and the global stock market, causing all major stock indexes to drop. However, as the US government reduces the interest rate and imposes a series of expansionary policies, the stock market starts to recover and



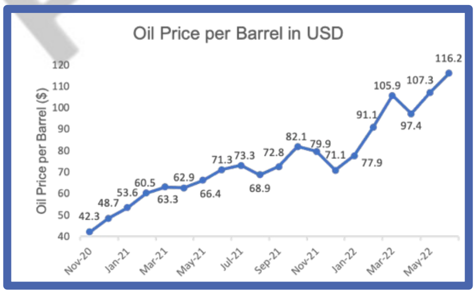


becomes a bullish market starting from the beginning of 2021. This bullish market with a strong growth slope does not continue for long. In 2022, due to the new Chinese lockdown, leading to a supply chain issue and the Russia-Ukraine war causing a lack of crude oil, and the internal problem of the interest rate being too low, the inflation in the US breaks the 40-year record and becomes around 8.6%, causing the stock market to tumble into a bear market starting in February 2022. Though there are a few rises in the bear market, around March and July of 2022. This is caused by people's expectations. Every time before the Federal Reserve meeting, the Federal Reserve will release the expected increase in interest rate, but as the actual interest rate hike is less than the expected ones, people will think that the inflation situation is under control, leading to the increase in the stock market. However, as time passes, people will see that the inflation rate is unchanged and lose hope that this time's rise in interest rate will mitigate inflation, resulting in the decline in the stock market again.



Crude Oil:

The war between Russia and Ukraine is unfavorable to the natural gas and oil of the United States. The reason is that the United States has completely banned the import of high-tech products from Russia due to United States sanctions against Russia. 8% of the US oil is imported from Russia. Russia has banned US oil imports from being paid in US dollars. And cut off its international energy trade to further affect the US economy and exchange rate. Therefore, this war is unfavorable to the American economy. The US has to shift its import of oil from other exporters. This shift, along with the shift of other EU nations, drives up the international oil price, bringing the oil price to almost $120 per barrel and showing a strong trend of increase.



Investment Strategies for 2022

It is currently tough for the Federal Reserve to stop or lower the US inflation down to an average level only by increasing interest rate as there are other supply-side problems and the inflation problem is not going to turn good any time soon in the US, there will be very difficult of the stock market to return to its momentum in 2022. In this sort of period of having a potential risk of entering an economic recession, tech stocks will continue to drop while on the other hand, stocks of essential goods such as food and necessities will increase. This way, purchasing commodities and investing in bonds while investing a small portion in stocks of essential goods will be a wise choice. It can help to create a portfolio that will not be affected by the severe movement in the current market while maintaining constant growth. In addition, as the Russia-Ukraine crisis continues, the decrease in oil supply can cause an increase in the general oil price in the market. Though it is a late time to start, investing in oil is a wise choice as well.

Forecasts:

There is currently great uncertainty in the stock market and at the US macro economy level due to the soaring inflation rate and uncertain Russian-Ukraine War situation. There is still doubtful whether the US can achieve a soft landing in terms of its inflation rate or the economy will go into a recession. Overall, the current US environment is risky and full of change.

Glossary

1. **Bond:** A fixed-income instrument that represents a loan made by an investor to a borrower (typically corporate or

governmental).

2. **Unemployment:** People above a specified age not being in paid employment or self-employment but currently available for work during the reference period.
3. **Consumer Price Index:** An index of the variation in prices paid by typical consumers for retail goods and other items.
4. **Bull Market:** A stock market in which prices have a long-term upward trend.
5. **Quantitative Easing:** The policy by which a central bank creates money and uses it to purchase financial assets, thereby increasing the money supply and stimulating a weak economy.
6. **Inflation:** Inflation is the devaluation of a country's currency that causes prices to rise.
7. **Recession:** It is manifested in the general decline of economic vitality and the consequent unemployment of a large number of workers.
8. **Gross Domestic Product (GDP):** GDP is the final result of the productive activities of all resident units in a country (or region) calculated at market prices during a given period.
9. **Nominal Gross Domestic Product:** GDP at current market prices and so not adjusted for inflation.
10. **Expansionary Policy:** Decisions that stimulate an economy by boosting demand through monetary and fiscal stimulus which include lowering the interest rate, quantitative easing, or decreasing the tax rate.

US Macro Environment Outlook

Group C

AMPLIFY

Key terms to aware prior to reading:

-Inflation:an increase in price level.

-Basis Point:one hundredth of one percent; 0.01%.

-Monetary Policy:used by the central bank that involves the management of money supply and interest rate.

-Fiscal Policy:the use of government spending and tax policies to influence economic conditions.

I. Introduction

The main trend in global trading today is inflation, including the U.S. soaring global prices, disordered supply chains and a disordered world system suggest that inflation is a direct manifestation of the world's disordered order financial markets. After the epidemic in 2019, the Federal Reserve implemented the monetary policy of quantitative easing, sharply cutting interest rates and printing money, resulting in increased liquidity in the whole market. M1 directly quadrupled in 2020 from $4 trillion to more than $16 trillion. The result has been a sharp rise in commodity prices, including equity and asset prices. Since then, it has continued to grow at a rapid rate, reaching over $20 trillion today. This phenomenon is the immediate cause of inflation. Because currency also takes time to circulate, inflation has a lag. So inflation began to rise rapidly in mid-2021.

II. Current Macro trend & events that impact the US

According to the Morgan Report, trend after 2019 continue grow gradually to 6.9%. As for the causes of inflation, on the basis of reports, the primary reason is the outbreak of Covid-19 epidemic. The rise in price only happened in a short period of 1-2 months. Without any increase in consumers' income, the monthly expenditure of Americans suddenly increased. Coupled with the impact of the epidemic on employment, many people at the bottom of the US are now suffering from the worst situation. Increased aggregate demand in U.S. had led to further inflation. Thus, the gap between the rich and poor is widening and social conflicts are being intensified. After 2021, COVID-19 on the U.S. economy is still impactful, supply and demand imbalances still exist. Moreover, Russia's war on Ukraine , which threatens political and economic stability worldwide, pushing up the price of natural gas, oil, gold and food resources. As well as raise interest rates help slow down the economy by making borrowing more expensive ,more saving less consumption, investors and enterprises pause on making investments, which lead to decline aggregate demand thus decrease in average price level .

III. Economic Data Analysis

For the Inflation, according to Fig 1, the steep price increases that immediately followed the COVID-19 lockdowns will fall out of inflation calculations and supply chain problems should also ease which is resulting in gradually declining inflation pressures as the year 2022 progresses.

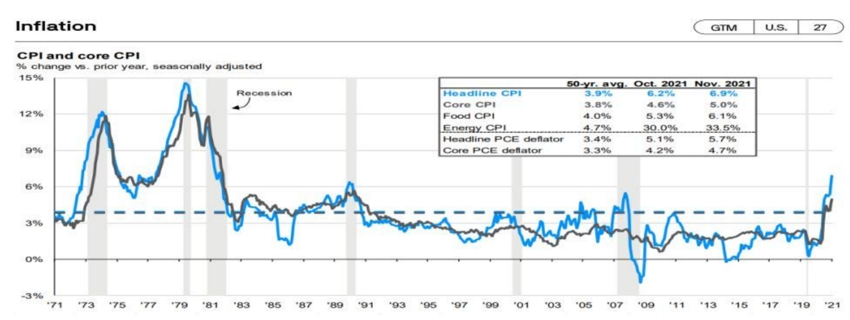


Fig 1. US Inflation 1971-2021

Leveling off but still elevated. Consequent, the annual average rate of inflation stays elevated at 3.7% than 2.5% in 2019. The USA inflation slow to 4.5% after an extreme spike earlier in 2021, but risks remain to the upside, and reflect the view that inflation rates will slow down in 2022 toward the Fed's 2% target. With Wednesday's historic rate hike the federal funds rate now sits at a range of 1.5% to 1.75%. How high is inflation today? Inflation surged in May, increasing 8.6% over the previous year and reaching its highest level since December 1981, according to the Bureau of Labor Statistics. Excluding energy and food prices, which tend to be volatile, core inflation climbed by 0.6% by last month. Gas prices rose 4.1% in May, bringing the increase in gas prices to 48.7% over the past 12 months. Food prices also increased, by 1.2% in May, that bringing 12-month increase to 10.1%, overall.

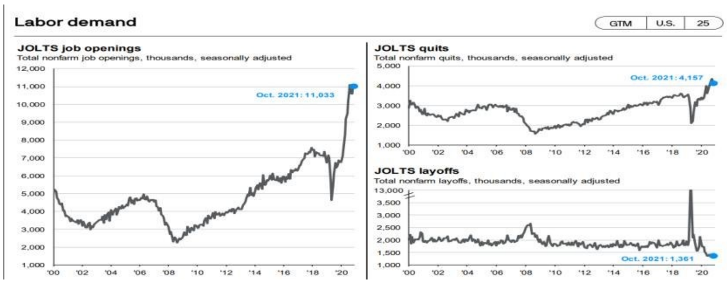


Fig 2. Labor demand 2000-2021

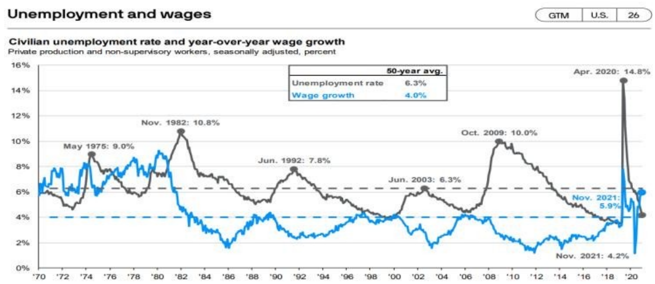


Fig 3. Unemployment and wages 1970-2020

According to Fig 2 & Fig 3, the unemployment rate has plunged to 3.6%, clear evidence of a tight labor market. Since the start of the year, over 1.2 million Americans have re-entered the workforce amid waning concerns about COVID-19. As a result, wage inflation has decelerated to a pace just above the 2018–2019 period. Over half a million Americans after experienced COVID-19 worries are keeping them from entering the labor force. We are already seeing the desired impact of slowing economic activity. Over the last six months, mortgage rates surged to the highest level since 2009, housing affordability plunged, and mortgage applications slowed.

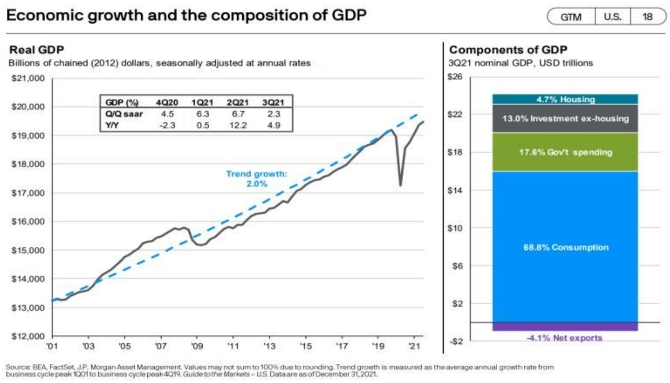


Fig 4. US Economic Growth

Real GDP (y/y %)	2020	2021E*	2022E*
Global	-3.4	5.8	4.3
United States	-3.4	5.5	3.8

Fig 5. US Real GDP

According to Fig 4 & Fig 5, for the aspect of GDP, the recovery should continue in 2022 with expected above-potential growth in global gross domestic product (GDP).The USA expect real GDP growth of 3.8% in 2022. We expect the global economy to grow by 4.3% in real terms in 2022 that is higher than the growth rate before the pandemic. For example the global economy grew by 2.7% in 2019.

IV. Policy Analysis

During the COVID-19 pandemic, the excessive monetary issuance and fiscal stimulus in the US not only triggered high inflation at home, but also flooded the international financial market with US dollars, exacerbating global excess liquidity, increasing the debt burden of emerging market countries, and increasing global financial instability. At present, high inflation forces the Federal Reserve to speed up the interest rate hike process, narrowing the interest rate gap between emerging markets and the United States, resulting in accelerated return of DOLLARS to the United States, emerging markets are facing exchange rate crisis, debt crisis and even a comprehensive economic crisis. In addition, the depreciation of currencies in emerging markets makes end-goods more expensive, exacerbates domestic inflationary pressures and exacerbates people's hardship. In response to the impact of COVID-19, the Us Federal Reserve adopted an extremely loose monetary policy, resulting in a large amount of US dollar liquidity. In March 2020, the Federal Reserve made two emergency rate cuts, bringing its benchmark interest rate down to 0-0.25% and initiating a policy of "unlimited" easing. From the end of February 2020 to the end of March 2022, the total assets of the Federal Reserve rapidly expanded from 4.2 trillion US dollars to nearly 9 trillion US dollars, with a cumulative growth of more than double in two years, which provided a liquidity basis for high inflation in the US. In conjunction with the Fed's monetary policy, fiscal policy also provides a policy cause for US inflation. Since the outbreak, the US government has introduced seven rounds of poverty relief bills, totaling 6.7 trillion US dollars. The us federal government's budget jumped from $984 billion in 2019 to $31,000 in 2020, and its share of GDP jumped from 4.6% in 2019 to 15.2% in 2020. The large-scale stimulus of fiscal policy led to the excessive expansion of aggregate demand and aggravated the imbalance between supply and demand.

V. S&P 500 and US Macro Environment

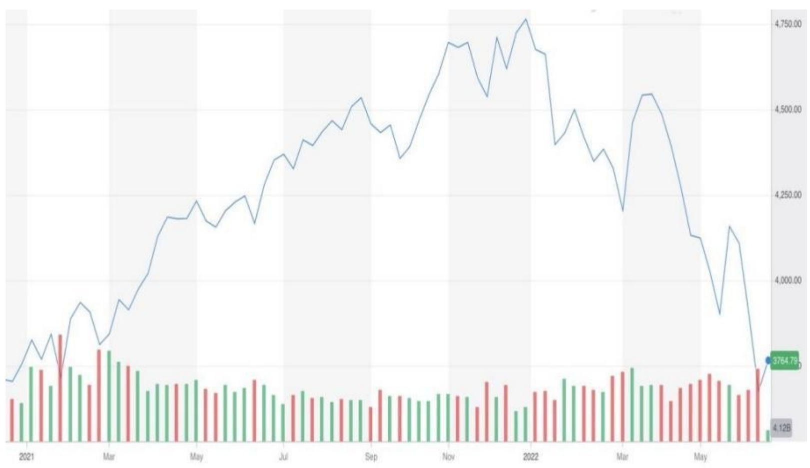


Fig 6. S&P 500 Index, January 2021-June 2022

According to Fig 6, the adoption of monetary policy had led to a serious impact on the price of S&P 500 (US's major Stock). Following FED's decision to increase 25 basis point in March the Stock's closed price had decreased drastically, from $4328.87 on February 28th to $4204.31 on March 7th. A similar impact had also occurred in May, the FED's announcement of a 50 basis point increase had worsened the Stock's price from $4023.89 on May 9th to $3901.36 on May 16th.

Apart from monetary policy, the continuous increase in unemployment and inflation rate had significantly aroused a pessimistic view of the entire US economy. The raise of basis point seems to have little effect on inflation yet Powell's word "either a 50 or 75 basis point increase seems most likely at the next meeting" rings the bell. The existence of high inflation and a high interest rate simultaneously is likely to result in a severe economic downturn, according to Powell, the FED will continuously increase the interest rate up to 3.5% to 4% to combat inflation. A sustained increase in interest rate lowers the investors' ability to purchase stocks hence the price of S&P 500 will fall with the decrease in demand. Therefore, the price of S&P 500 will likely to fall with the FED's decision to increase the basis point in the future.

JUN.2022

Macro Analysis Report

By Team B

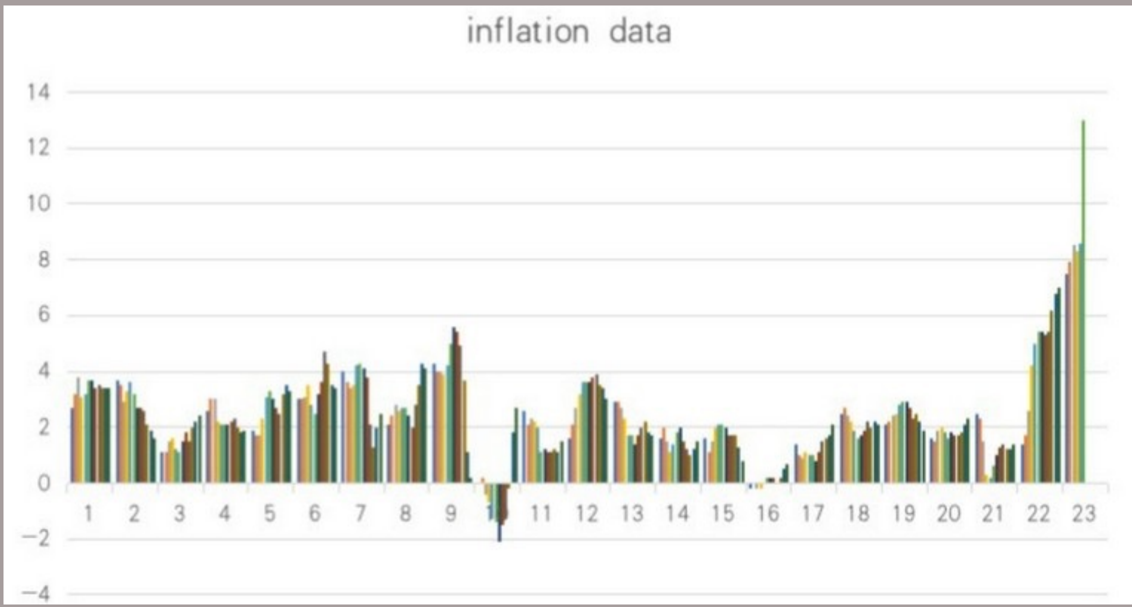
US Inflation itself

The data of US inflation keep stable at approximately 2% from 2010 to 2019 except in 2019, when the H1N1 flu very series caused deflation. There is a dramatic wave in inflation in the US in 2020. The US inflation increased monetarily from 1.4% to 8.6% between 2021 and 2022. US inflation is at its highest rate in nearly four decades this fall, reaching 8.6% in May 2020.

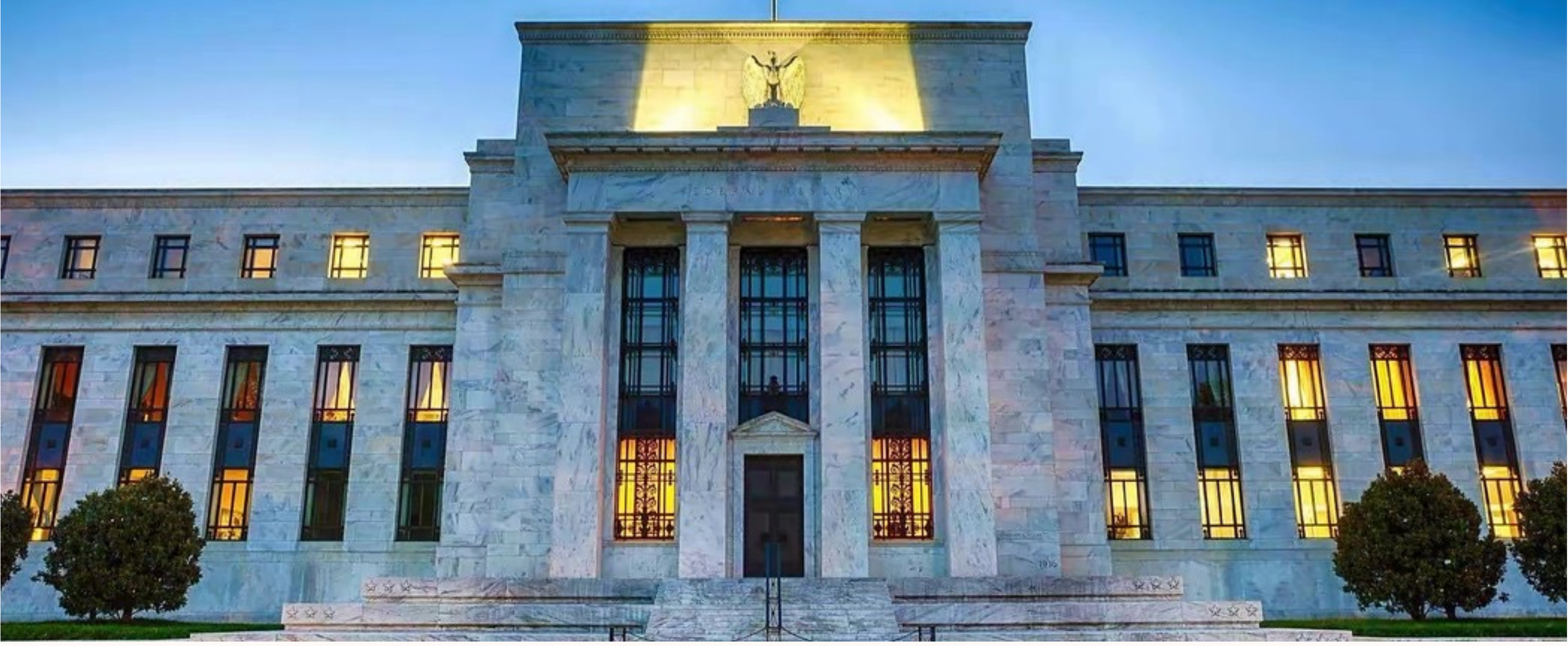
As far as I'm concerned, I think the main reason for the inflation in the United States is the excess of money. Due to the COVID-19 outbreak in 2020, the US government promoted serval rounds of large-scale bailout funds as part of the stimulus plan. Since then the government has paid unemployment benefits to millions of people who lose their jobs. these conditions will lead the government revenue to decrease and the money will not be enough in the end. So the American government decided to print more dollars.

This part is to talk about the reason why the United States has inflation itself.

Inflation: a rise in the price level of goods and services over time.



The inflation formed under this measure is demand-pull inflation. The demand-pull inflation means rises in the price level caused by excess demand. This is one of the causes of demand-pull inflation. And the other reason is the shortage of workers. The United States has a near-record number of job openings, and a staggering number of Americans are quitting jobs. Because the unemployment benefits are so high, it is higher than someone needs to work for. That may be will lead many people like most automation to work. As Russia and Ukraine are at war, it is affecting Russian-dominated supply forces, which is increasing global oil prices. This leads to cost-push inflation. Besides, the cost-push inflation means the price level is caused by higher costs of production. As oil becomes more expensive, so the costs of industry rise which need oil produce.



Central bank policy

In the <World Economic Outlook> of 2022, the United Nations mentioned that the inflation rate in the United States has reached the highest level in 40 years, reaching a staggering 8.26%! This will lead to soaring prices, devaluation of circulating currency, and a sharp rise in the cost of raw materials, transportation, and labor in the United States, and the overall economic level of the United States is going backward now.
The direct reason for this is that the epidemic in 2020 has dealt a huge blow to the US economy, and the economy and employment are significantly lower than the expected targets. Therefore, the US has successively put in QE. The US Federal Reserve has sharply cut interest rates by 1 percentage point to 0-0.25% and then announced that it will purchase assets according to actual needs without an upper limit, that is, no upper limit QE. That means there's an unlimited quantity of the money issue.

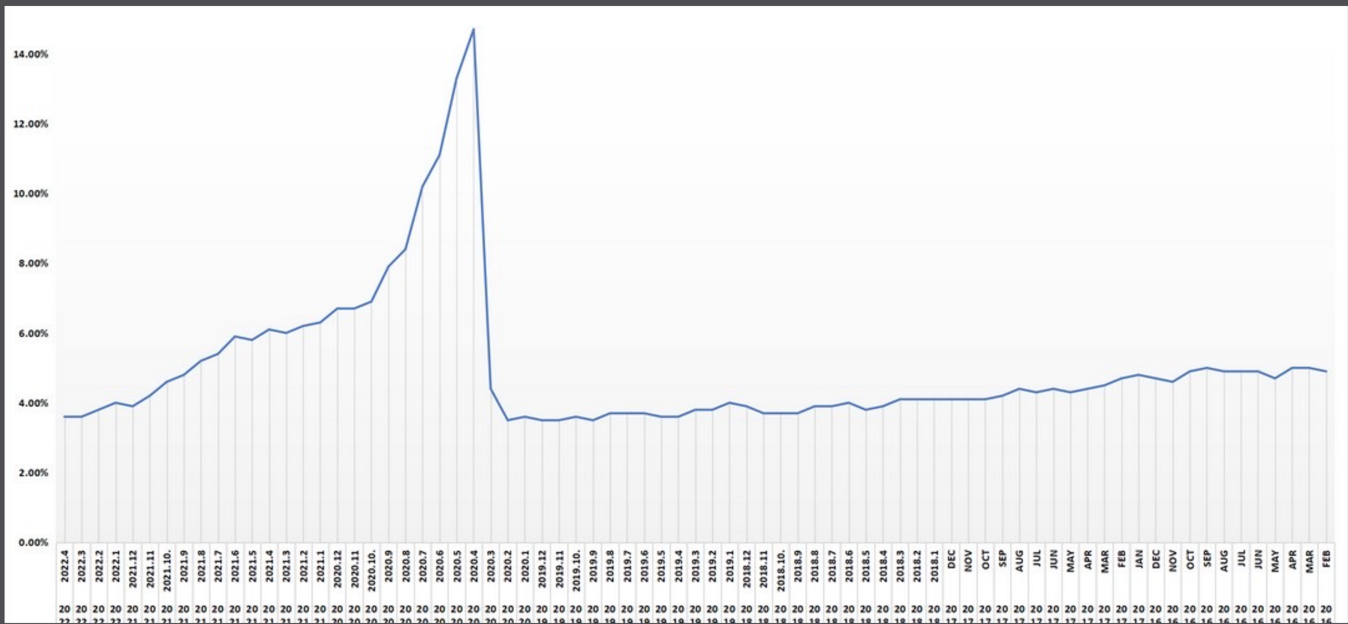
Quantitative easing: QE is a form of unconventional monetary policy in which a central bank purchases longer-term securities from the open market in order to increase the money supply and encourage lending and investment. Giving QE, can quickly increase the domestic money supply and spur economic activity.

Gross Domestic Product(GDP): The monetary value of all finished goods and services made within a country during a specific period.

Consumer Price Index (CPI): It measures the monthly change in prices paid by U.S. consumers.

Personal Consumption Expenditures (PCE): A measure and track changes in the prices of consumer goods over time.

After lowering the overall interest rate, the United States encourages people to borrow and spend, but this does not work. So the Federal Reserve began to issue more money wantonly to save the economy from the bad condition. As a result, the American people directly chose to stay at home instead of working. Because the government and banks encouraged them to use money, they became lazy. As a result, less people was employed and waited at home for the government to issue high unemployment benefits. However, the printing of money has not stopped, resulting in more and more money on people's hands, which is becoming worthless and worthless. Therefore, it finally led to inflation. Slowly, the inflation rate has become higher and higher, up to the current 8.26%.



The U.S. economy is now in a very serious situation. In addition to the highest inflation rate in the past 40 years, the CPI and PCE of the United States are also at 40-year highs, with CPI of 8.6% and PCE of 5.2%. The real GDP growth rate of the United States in the first quarter of 2022 was -1.4%, which was 8.3% lower than the 6.9% in the fourth quarter of 2021.

In order to improve the current economic situation, the Federal Reserve has raised interest rates three times in 2022, with the rate hikes of 25bps, 50bps, and the latest 75bps respectively, which is the largest single rate hike since 1994, and there will be different rate hikes in the second half of 2022, which fully shows that the Federal Reserve is eager to quickly curb the momentum of high inflation in the United States. This tightening of monetary policy is highly likely to lead to a recession in the United State.

Monetary Policy: A set of tools that a nation's central bank has available to promote sustainable economic growth by controlling the overall supply of money that is available to the nation's banks, its consumers, and its businesses.

Recession: A period of declining economic performance across an entire eco

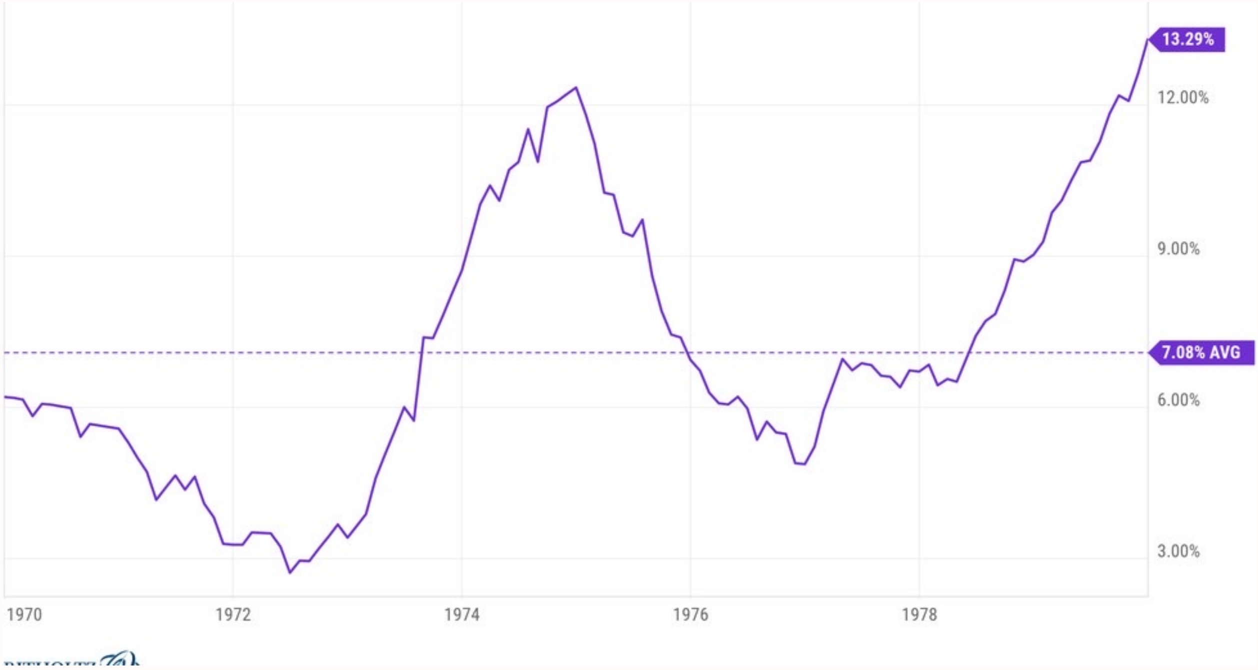
The consequences of the policies

The two significant policies we have mentioned previously are "Fed raises Interest Rates" and "relief payment". Both of the policies were originally intended to stimulate the US economy. Nevertheless, after the policies were implemented, these policies are plausibly causing and leading to stagflation, which is the situation that the US wanted to avoid. How do the policies affect the US market and gradually lead to stagflation?

Stagflation: Persistent high inflation combined with high unemployment and stagnant demand in a country's economy.

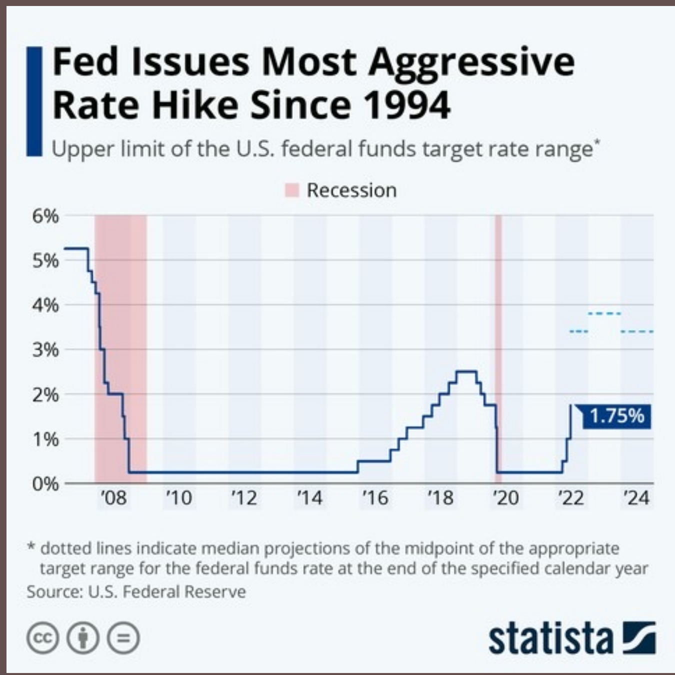
Market sentiment: average sentiment toward a market or stock

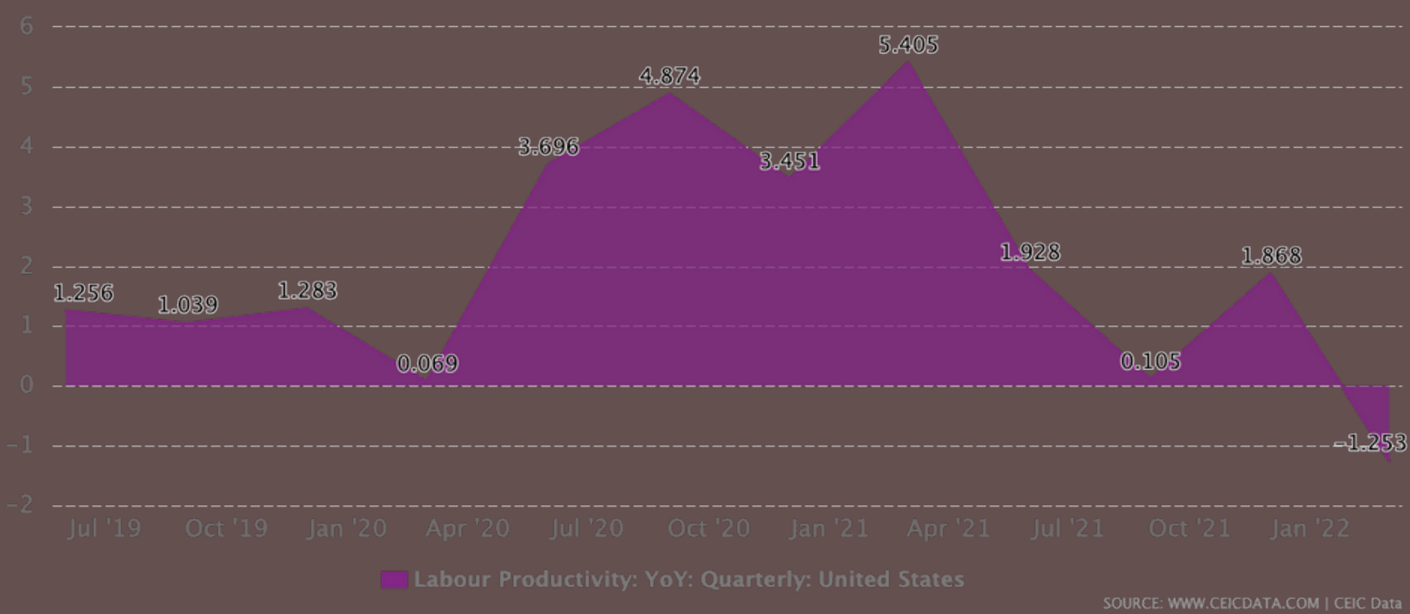
The cut of the interest rates leads to the activeness of the market. In this case, the cuts are made because the federal wants to stimulate the US economy. Nevertheless, the afflux of capital unexpectedly decreases, which highly affects the market sentiment. This significantly causes the occurrence of inflation. Recently, on June 15, 2022, the US Federal Reserve announced a 75 basis point rate hike, raising the target range of the federal funds rate to between 1.5% and 1.75%. It is the greatest raise since 1994, which indicates that inflation has become more serious.



This policy most likely limits the activeness of the currency and increases the value of the dollar, logically speaking, the policy will strengthen the dollar value in the market. The forecast for GDP growth in the US was only 1.7%, 1.7%, and 1.9%. The latest speculations show that the stagflation situation is still worsening, and the war between Russia and Ukraine may be one of the factors.

According to the current data, US non-farm productivity decreased by 7.3%, which is the steepest decline in 75 years. It can be inferred that there is a huge decrease in the workforce, which is mainly caused by Relief Payments. Citizens are getting money from the federal, which purposely wanted to fix the current situation. However, since people are getting free money, they cease working. This leads to less employment and workforce, which is causing stagflation to happen. Excluding the reasons for Covid-19 and unemployment, the decline also shows the sudden rise in wages, lack of investment, and so on.





The future trend of the S&P 500 Index

What is the S&P 500 index?

S&P 500 is an index of 500 publicly traded companies in the United States. The constituent stock is constituted of 400 industrial stocks, 20 transportation stocks, 40 utilities, and 40 financial stocks. It has the characteristics of a wide sampling area, strong representativeness, high precision, and good continuity

What will affect S&P 500's movement?

There are plenty of factors that will affect its movement. Such as economic growth, inflation, political factors, and so on. The US inflation increased quickly from 1.4% to 8.6% between2021 2022. The US economy contracted an annualized 1.5% on quarter in the first three months of 2022, slightly worse than initial estimates of a 1.4% decline, with the biggest drag coming from trade.

What is S&P 500's future trend?

In recent years, the inflation rate of the US increase continuously. The Federal Reserve raised interest rates by 0.75 % on June 15th. That means there are more people who decide to save more money in banks, and plenty of investors dump stocks. Then there is less money that can flow into the stock market. So it might go down. When the US raise the interest rate, the S&P 500 is down nearly 4 percent and more than 21% since January. Affected by inflation, people spend more money on daily goods, as a result, the stock price would fall.

And now Russia and Ukraine are waging war, and the impact on commodities such as oil has been more pronounced. Russia dominates the global oil and gas market. The supply chain of oil disruption. Aggregate demand is higher than aggregate supply, so if the price of oil increase dramatically, most enterprises improve the price of raw materials.Further down the supply chain there will be more cost pressures. For manufacturers, as the price of crude oil increases, they can get more profit. However, more people save money in banks, Financial enterprises are relatively stable and will not produce large fluctuations.

For investors, A good attitude is also one of the most important factors for successful investment, the rise of the inflation rate in the United States, the war, and the COVID-19 may cause people to lose confidence in the market. In order to be safe, they may decide to deposit their money in a bank, which is stable and secure. In some cases, a large number of investors will withdraw from the market, thus causing the stock price to fall.

U.S. MACRO REPORT

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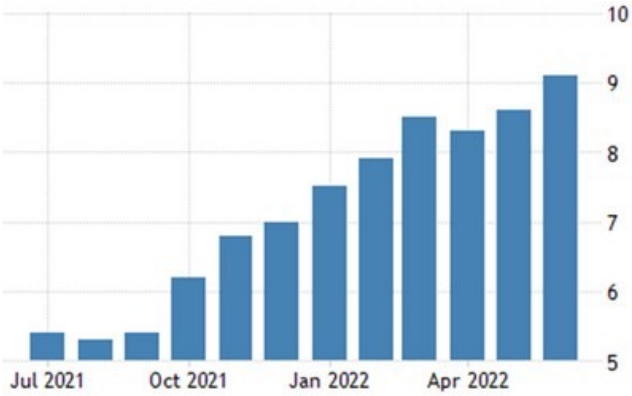
INTRODUCTION

Due to the quantitative easing policies before, the U.S. is experiencing inflation at the present. The Fed had taken actions to increase the interest rate, again and again, to fight inflation. The fed-funds rate was raised to a range between 2.25% and 2.5% after a 75-basis-point increase this month, reported on July 15th. Currently, although consumers had experienced an increase in the price level, they are still flush in money due to the savings during the period of the lock-down. Surprisingly, with this intense environment, investors seemed to be optimistic about the future of the U.S economy. On July 18th, the biggest one-day gain in stock indexes was recorded.

ECONOMIC DATA ANALYSIS

We can see the inflation rate increased from 2021 to 2022(Fig.1). During this time, before Oct. 2021 there was a steady increase and after that, we can see a rapid increase in the last 5 months. The US government may decrease the inflation rate by using monetary policy.



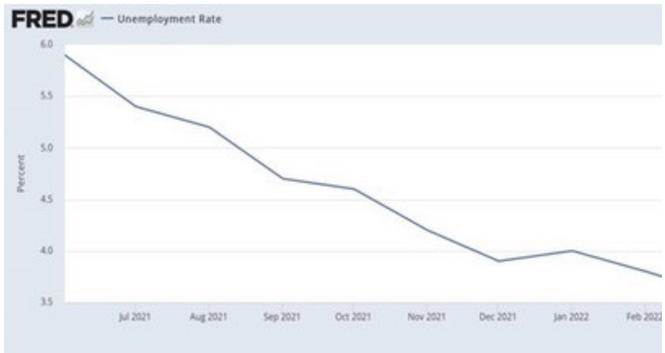


Fig. 1 Inflation rate of US

Fig. 2 Unemployment rate

First, they may need to decrease the interest rate. As the interest rates increases, which will cause inflation. The interest rate in June is higher than in January. The American government may increase the interest rate to decrease the inflation rate. If increasing the interest rate result the reward of saving will increase, and the cost of borrowing will increase, which can increase saving and decrease borrowing.

They may also decrease inflation by decreasing the money supply, which is also included in monetary policy. If the amount of money in the economy is reduced, the value of money increases. People could use less amount of money to purchase goods and services. The price level falls, and correct inflation.

Due to the higher inflation rate, the price level will be higher, and that will result in more people who can't earn much that can't afford their basic needs then cause absolutely poverty and at the same time the raw materials price increase, too. The cost of production will rise. Then some companies will lay off some employees. That will cause the unemployment rate to increase. The government may control the money supply, and the unemployment rate decreased from about 5.8 to 3.7 (Fig.2).

And in a long run, because of the covid, most workers are unemployed, a higher unemployment rate and higher prices will cause the productivity to decrease and the industry can't produce the same amount of goods and services as output compares with before. In 2022, the value of real GDP has no change but the increasing rate in American GDP was 5.3% in 2021 and 2.8% in 2022. And the inflation rate in the US is 8.5%.

POLICY-ANALYSIS

The goal of the quantitative easing policy in the United States is to maintain the normal function of the commercial banking system and avoid the mass failure of commercial banks caused by the central bank's tightening in the 1930s, which indirectly leads to the dysfunction of the commercial banking system.

On July 19, 2022. the US dollar index rose slightly and is currently trading around 107.48. The short-term support of the US refers to 106.80--106.85, and the important short-term support is 106.25--106.30. The dollar index hit a one-week low of 106.88 on Monday, retreating from a 20-year high of 108.30 hits last week.

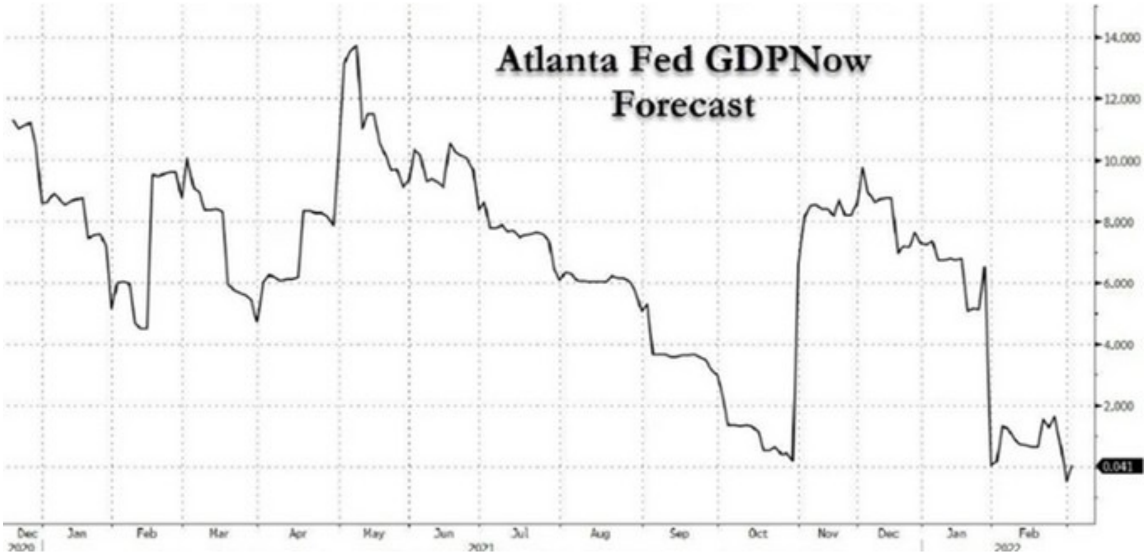
The Fed's aggressive stance could push the U.S. into a recession, causing enough demand destruction in commodity markets to cool red-hot inflationary pressures while pushing up U.S. bond yields and the dollar.

The US CPI rose 9.1% year-on-year in June, versus 8.6% last and 8.1% expected. Year- on-year growth broke further to a record high, the highest on record since the end of 1981, and still ahead of expectations. Month-on-month growth was 0.3 per cent in June, compared with 1 per cent last and 0.2 per cent expected, but still above expectations.

The Federal Reserve announced in July 23, 2022 that it will continue to purchase U.S. Treasury bonds and mortgage-backed securities to support the U.S. economy against the impact of the new crown pneumonia epidemic. The two effects of this move are to secure prices for U.S. Treasuries and mortgage-backed securities and to flood the market with money to ease the crunch.

The data released showed that the real GDP of the United States in the second quarter was -0.9% quarter-on-quarter, which was negative for two consecutive months, which means that the US economy fell into a technical recession. Markets were shaken, with the U.S. 2-year Treasury yield plunging more than 10 basis points following the release of the GDP data.

On March 1, 2022, the Federal Reserve Bank of Atlanta in the United States officially released data showing that it significantly lowered its first-quarter GDP forecast to 0.0% from 1.7% some time ago and 0.6% on February 25.



Today, the U.S. has been raising interest rates, so borrowing costs have increased. People are reluctant to borrow money now. At the same time, the United States is also facing the problem of inflation, prices have remained high, and people's consumption desire has begun to decline. For example, investors are also reluctant to invest in some companies, resulting in lower overall production, and output also decreases.

At the same time, the U.S. workforce is now increasingly affected by the after-effects of the coronavirus, with about 31 million working-age Americans experiencing the effects in March. About 1.6 million people a month are out of work, and 28 million people of working age are affected by the sequestration in July of the same year, resulting in 3.3 million unemployed, 2.6 million people, and reduced working hours which has greatly reduced the productivity of the American labor force. It caused a decline in productivity in the United States, and it caused a recession in United States.

CURRENT MACRO TRENDS & EVENTS THAT MAY IMPACT THE U.S.

The annual inflation of America, measured by the consumer price index (CPI), surged to 9.1% in June. It is a 0.5% increase compared with that in May. The Federal Reserve was pushed to increase the interest rate because the immediate jump in inflation was higher than the expected value.

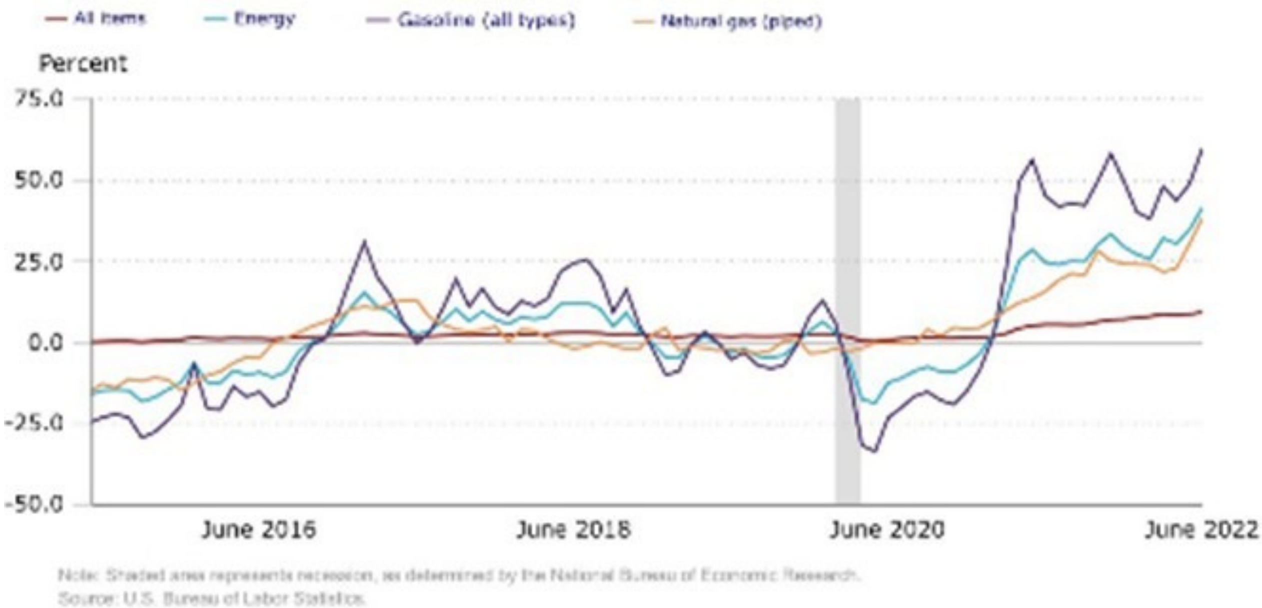
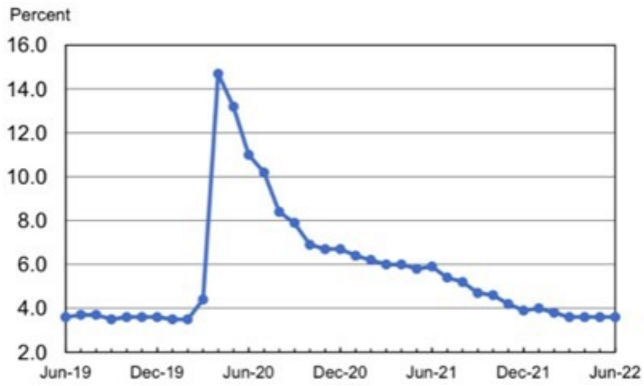


Fig. 3 12-month percentage change, Consumer Price Index, selected categories, not seasonally adjusted
Statistics from Bureau of Labor Statistics

Consumers are worried about the high inflation and experience a significant rise in the price of goods and services. Some of them have already cancelled some purchases related to luxuries. Consumer psychology may have an impact on consumer spending in the future.

Fortunately, the employment rate did not move along with the dramatic inflation, and it remained in stable manner. The unemployment rate stayed at 3.6%, and the nonfarm payroll employment increased in June by 372,000.



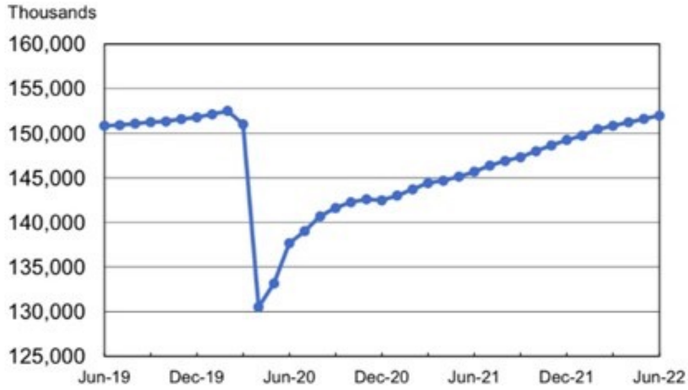


Fig. 4 The unemployment rate

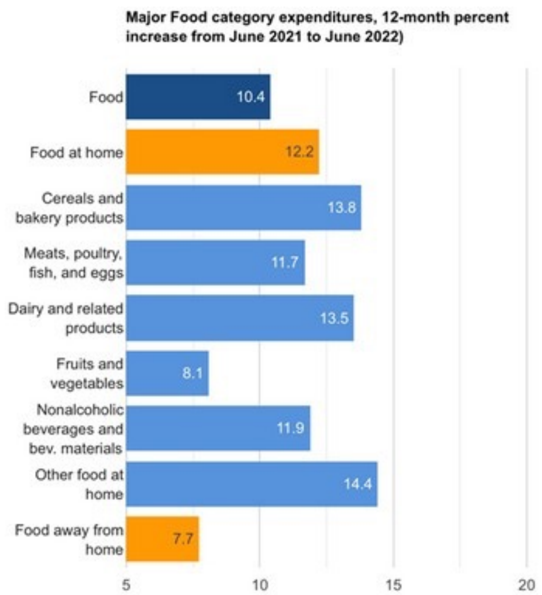
Source: Bureau of Statistics

Fig. 5 Nonfarm payroll employment

The United States raised interest rates by 0.75bps in July 2022. This measure is to curb inflation. From June 2021 to June 2022, the inflation rate in the United States rose from 5.4 to 9.1. In the long term inflation, firms and families paid the cost for this.

According to the changes in the CPI from June 2021 to June 2022, the cost of fuel and food increased significantly, household expenses and oil prices increased significantly, and high house prices and interest rates affected commuting, catering, automobile markets, etc. Some recessions feed on themselves as indebted households cut their spending or default cascade through a fragile financial system. With a few exceptions, such as Canada's frothy housing market, today's big economies suffer from few such vulnerabilities. In fact, households and companies look strong. Besides, the unemployment rate in the United States is lower than the natural unemployment rate. It means that the real GDP is higher than the potential GDP, and exist overexploitation of natural resources, especially fuel oil. This is not good for long-term economic growth.

Elsewhere the main impetus for inflation is soaring global food and energy prices and disrupted supply chains, which are raising the price of imported goods. Some shortages are already easing. Wheat prices are down by nearly 40% from their recent peak in May. Oil prices have also been falling lately. Supply chains are recovering. As oil prices rise, the market value of new energy production capacity may rise.



US STOCK MARKET PERFORMANCE

With the increase in inflation, the Fed officials began to gradually increase its interest rate during their past four meetings. The first increase in interest rate began in March 2022, with a quarter-point increase. In May, the Fed brought up another increase in interest rate with a half-point rise. Starting to realize the serious problem of inflation, the Fed implied a 0.75-point increase in interest rate in June 2022, which is the largest rate of increase since 1994. After the report published by the Labor Department which showed a 9.1% increase in CPI, the Fed responded with a 0.75-point increase in interest rate again in July 2022. Because of the increase in interest rate, as well as the significant rise in the price level, investors' confidence fell. In the diagram of Fig.6, both S&P 500(the blue line) and Dow Jones Industrial Average(the purple line) started to fall in May, after the second turn increase in interest rate, and keep decreasing afterwards.

Fig.6 Trend of stock indexes-S&P 500 and Dow Jones Industrial Average
Source from Yahoo

However, in the midterm of June 2022, the overall trend of both S&P 500 and Dow Jones Industrial Average began to go up. At the same time, the Volatility Index began to fall (Fig.7). It was reported on July 20th, 2022, stock indexes* experienced their biggest one-day surge. These phenomena showed a positive recovery in the stock market, and it would keep performing positively in the future in the short run, due to the market sentiment.

Fig. 7(a) VIX trend with its moving average

The volatility Index (VIX) is an index to measure market sentiment. It represents a future market's expectation about the S&P 500 in the next 30 days. Compared with the VIX before, investors became calmer about the market performance, with 21.33 at the end of July compared with 34.02 which peaked at the midterm of June 2022. It means that investors expect the near-term price changes of the S&P 500 to become lower. Therefore, a fall in VIX after the peak in the mid-term of June showed a good sign for the future market performance of the S&P 500. As shown in Fig. 7(b), the S&P 500 reached its bottom in the mid-term of June, and started to bounce back.

Fig. 7(b) VIX trend compared with S&P 500

On the other hand, investors need to be careful with this phenomenon when deciding on their investment portfolio. Tech-focused Nasdaq still showed a volatile trend, and it may influence the overall market performance in the future (Fig. 8). At the same time, there is a possibility of a large number of speculators in the stock market. As the price of goods and services kept increasing, the stock price became cheaper at the present compared to before. Amateur investors may seek this opportunity to put money into the stock market, hoping to earn money after the recovery of the economy instead of spending money on goods and services. The temporary rise in the stock indexes may be caused by these sudden speculations in the market, but they might not remain, as these amateur investors have little power to determine the market in the long run.

This short-term change in the market is because of the sentiment in the market at the moment. These stocks seem cheaper compared to these previous months, but they are not that cheap when investors seek to gain a long-run profit. For long-term investors, they still need to take into consideration the valuations of these stocks. There are a few factors that might affect the trend in the long run.

Fig. 8 Stock indexes-S&P 500, Dow Jones Industrial Average and Nasdaq Composite

Source from Yahoo

The added maroon line represents the performance of the Nasdaq Composite. Compared with other indexes (S&P 500 and Dow Jones Industrial Average), it is more vulnerable to a change in economic condition. It fell back beyond others more quickly and may have a trend of pulling down other indexes' performances.

The economic environment would determine the long-run trend of the stock market. The change in interest rate published by the Fed for the next few months(after July 2022) will have an impact on the overall market performance. As the Fed's New Dot Plot suggests (Fig. 9), the interest rate is still going to increase in 2023. Businesses, especially new businesses, might be at the risk of touching the brink of failure because the increase in interest rate makes borrowing more expensive. Nasdaq Composite Index may become more volatile in the future if tech businesses fail to catch up with their financial-capital chains in the next few months.

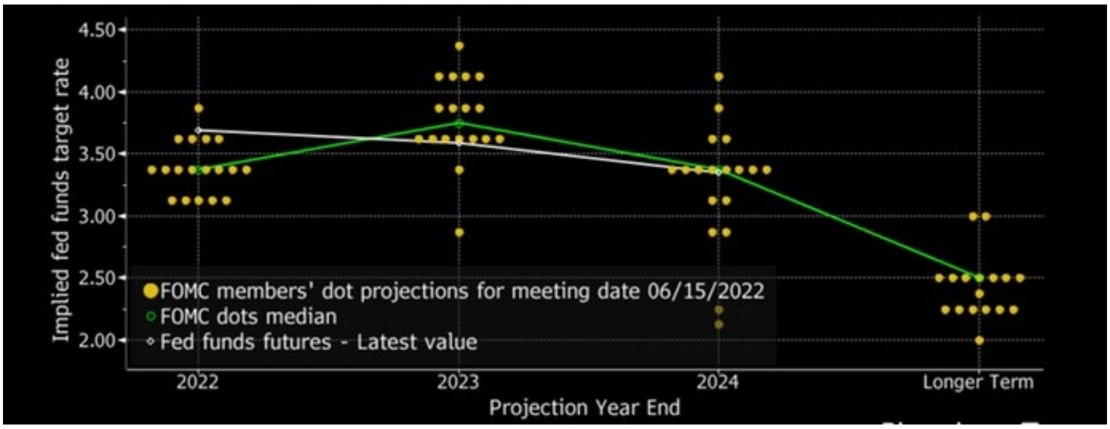


Fig. 9 The Fed's New Dot Plot

*Indexes include: S&P 500, Dow Jones Industrial Average and Nasdaq Composite

As the Federal Reserve would keep raising its interest rate between 2022 and 2023, the US economy faces slow economic growth in the future. The US economy had experienced a decline in the real GDP over 6 months (Fig.10), it is technically experiencing a recession. As there is high inflation at the same time, the economy meets the problem of stagflation. The consumers confidence would fall. At the same time, this would crash earnings in the future for companies, as the price for raw materials become higher, and the productivity might become lower.

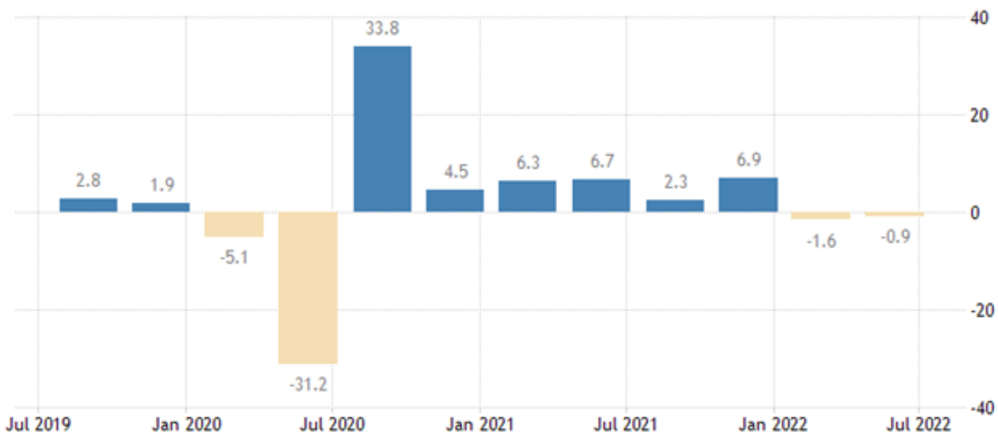


Fig. 10 Real GDP of US

Source: TRADINGECONOMICS

As shown in Fig. 11, the Consumer Confidence Index(CCI) fell in 2022. It was reported by the Conference Board that, the index in July 2022 was 95.7, which is 2.7 points lower than that in June(1985=100). The price of food and fuel are elevating at the present, caused mainly by the inflation in the US and the war between Ukraine and Russia which lead to a shortage in fuel. This followed fall in the expectations of consumers would lead to a fall in consumer demand. Companies would suffer if consumers cut their spending, and it discourages production, which would lead to a fall in productivity.

Fig.11 Consumer Confidence Index
Source: The Conference Board

Another determinant for the long-term stock market trend is the business fundamentals in the future, whether or not they would recover. Viewing the current situation, there is hardly any signal for a quick recovery. Due to the higher prices and interest rates, economies gradually lost their momentum to grow. Businesses face rising wages, training and raw marterial costs, which lower their profitability. The price-to-earning(P/E) ratio(Fig.12) showed an upward trend in August, 2022. That might means that the foundation of businesses, which is their earnings are still weak and volatile.

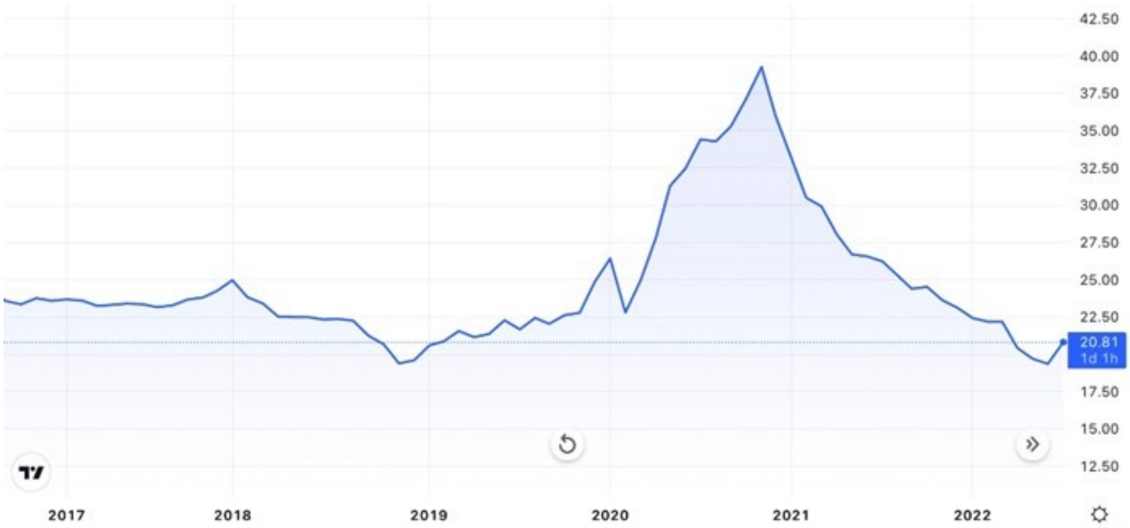


Fig.12 S&P 500 P/E Ratio
Source: TradingView

Composite Purchasing Managers Index (Fig. 13) performed negatively in July 2022, indicating a contraction in economic performance in the US - a new index record of 47.5 (a number below 50 represents a contraction). The performance could influence worldwide investors' expectations, and lead to a pessimistic estimation of the US economic trend. They would, then, take out the investments, which would lead to a drop in the US stock market.

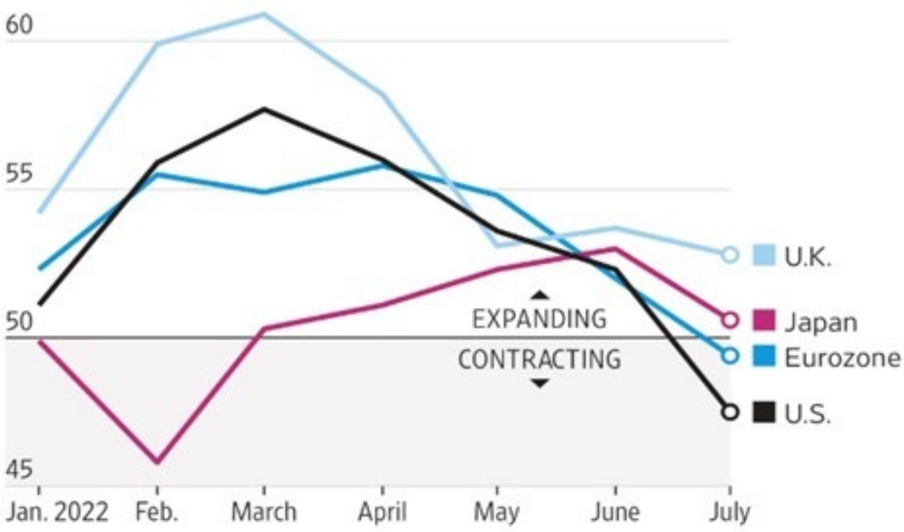


Fig. 13 Composite purchasing managers index
Source: S&P Global; au Jibun Bank (Japan)

In conclusion, the forecast of the future stock market performance has the probability to bounce back in the short run, but follows a downward trend in the long run. In the short run, investors expect the stock price becomes cheaper (showed by the VIX), and may speculate in the stock market due to the market sentiment. In the long run, the increase in interest rate, and the stagflation situation would push down consumers' confidence, and the productivity of firms. The profitability of corporations might shrink, which lead to a fallback in the stock market.

KEY TERMS

Consumer Price Index(CPI): a way to measure the rate of inflation.

The volatility index(VIX): is an index to measure market sentiment. When the VIX becomes higher, it means investors tend to be more panic about the current market situation. In contrast, when the VIX gets lower, it means investors tend to be calm. It is not good neither too high nor too low for this index, investors are over-pessimistic or over-optimistic.

Federal Open Market Committee(FOMC): consists of twelve members, which are responsible for open market operations.

Purchasing Managers Index(PMI): a measure of the prevailing direction of economic trends in manufacturing.

Stagflation: or called recession-inflation, is when the economy experiences slow growth and high inflation.

The Consumer Confidence Index (CCI): is a result of a monthly survey of 5,000 U.S. households by the Conference Board that measures how optimistic or pessimistic consumers are about the economy's current and future performance. When the index is high, consumers are expected to increase their spending on goods and services. When it is low, a decrease in spending is expected.

Price-to-earning ratio(P/E ratio): The price-to-earnings ratio is the ratio for valuing a company that measures its current share price relative to its earnings per share (EPS). A high P/E ratio could mean that a company's stock is overvalued, or that investors are expecting high growth rates in the future.

MACRO ANALYSIS REPORT

U.S. INFLATION & SIDE EFFETS

Presented by

TEAM A

TABLE OF CONTENTS

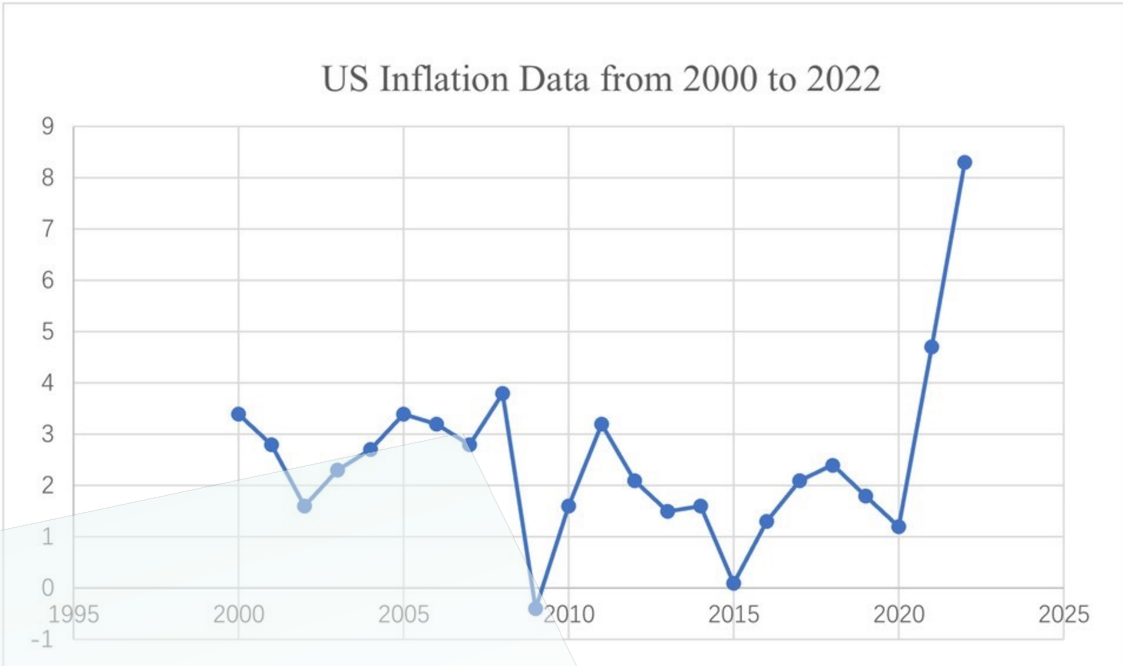
INTRODUCTION

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 are now able to 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, consumer price index is rising. U.S. headline inflation is currently reaching its multi-decade peak, and a tight labour market requires stricter monetary policy in order to control economic growth.

ECONOMIC DATA ANALYSIS

Inflation

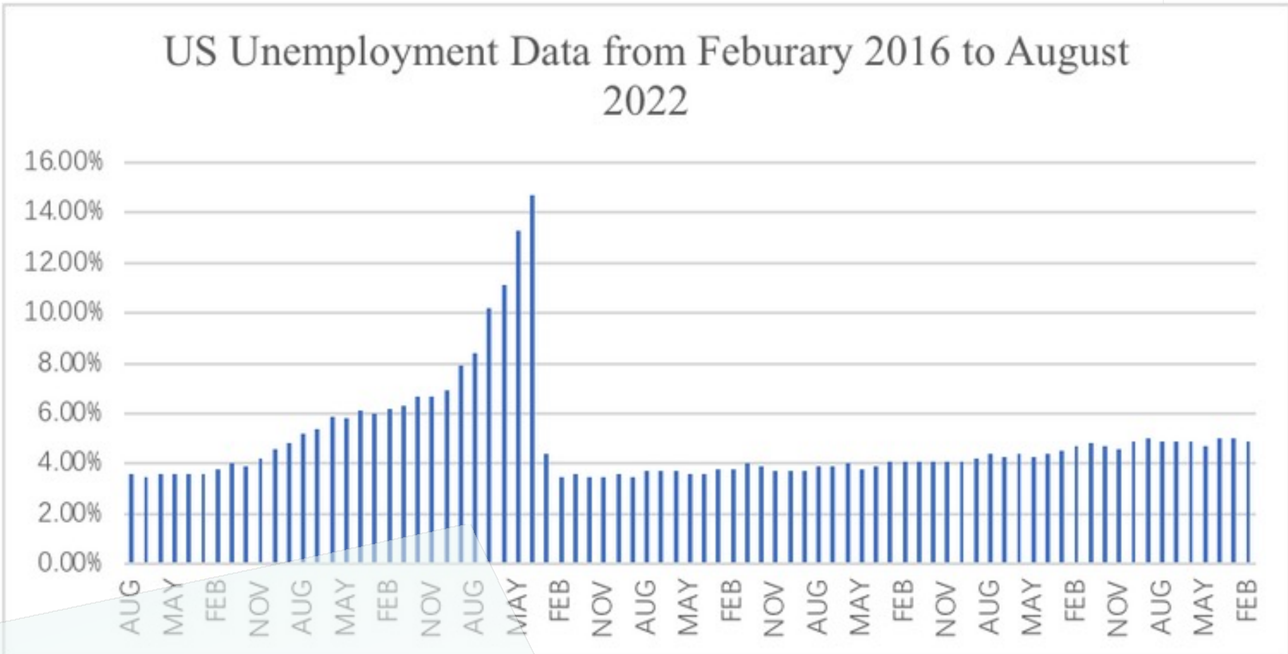
From 2000 to 2022, according to usinflationcalculator, during this 22-year period, except that the inflation rate in 2009 was less than 0% and the inflation rate in 2021-2022 was higher than 5%, the inflation rate in the rest of the years was relatively normal, which proves that the economic situation of United States from 2000 to 2022 is still relatively good. Nowadays, inflation in the United States is high. For consumers, higher prices on essential goods like food and gasoline may become unaffordable for people whose paychecks aren't rising as much. But even when their wages are rising, higher inflation makes it harder for consumers to tell if a particular good is getting more expensive relative to other goods, or just in line with the average price increase. This can make it harder for people to budget appropriately. If inflation persists for too long, it can cause prices to continue to rise, fueling inflation and ultimately reducing the real value of every dollar in your pocket.



ECONOMIC DATA ANALYSIS

Unemployment

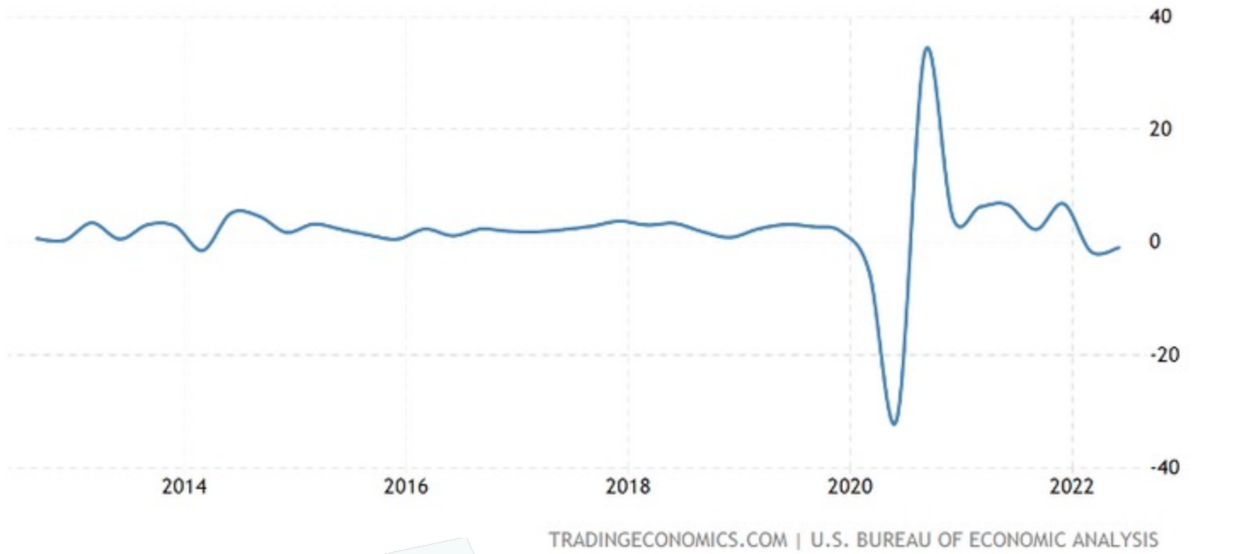
According to Investing's data, from April 2016 to August 2022, the unemployment rate in the U.S. was generally stable. The overall trend is around 4%, and the only increase is from April 2020 to August 2020. During these months, the U.S. unemployment rate increased significantly, reaching a peak of 14.70%. This is the shock brought about by COVID-19. When workers are unemployed, their families lose wages, and the nation loses their contribution to the economy in terms of the goods or services that could have been produced. Unemployed workers also lose their purchasing power, which can lead to unemployment for other workers, creating a cascading effect that ripples through the economy. In this way, unemployment even impacts those who are still employed.



ECONOMIC DATA ANALYSIS

<u>GDP Growth</u>

According to data from tradingeconomics, 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 increased by 33.8% in 2021. Compared with the beginning of 2020, the overall decline in July 2021 is 7.94%. After calculation, in July 2022, the US GDP rose by 10.42% compared with January 2020. In general, as GDP grows, individuals' incomes increase, as does the production of goods and services; individuals not only have access to more goods and services but also have income to purchase those goods and services.



POLICY ANALYSIS

U.S. monetary policy includes Fed actions and communications to promote maximum employment, stable prices, and moderate long-term interest rates—economic goals that Congress has directed the Fed to pursue.

In response to the economic fallout of the COVID-19 pandemic, the Federal Reserve cut short-term interest rates to zero on March 15, 2020, and restarted large-scale asset purchases (often referred to as quantitative easing or QE). From June 2020 to October 2021, the Fed will buy $80 billion in U.S. Treasuries and $40 billion in agency mortgage-backed securities (MBS) per month. Bond purchases affect market expectations about the future path of monetary policy. Quantitative easing is seen as a signal that the Fed intends to keep interest rates low for some time.

The U.S. economy recovers quickly from the pandemic in 2021, with strong economic growth, job gains and higher inflation throughout the year. At its November 2021 meeting, the Federal Open Market Committee (FOMC), the Fed's policy-setting committee, decided its tapering test had passed. The Fed began reducing the pace of monthly Treasury purchases by $10 billion and MBS purchases by $5 billion in November and December.

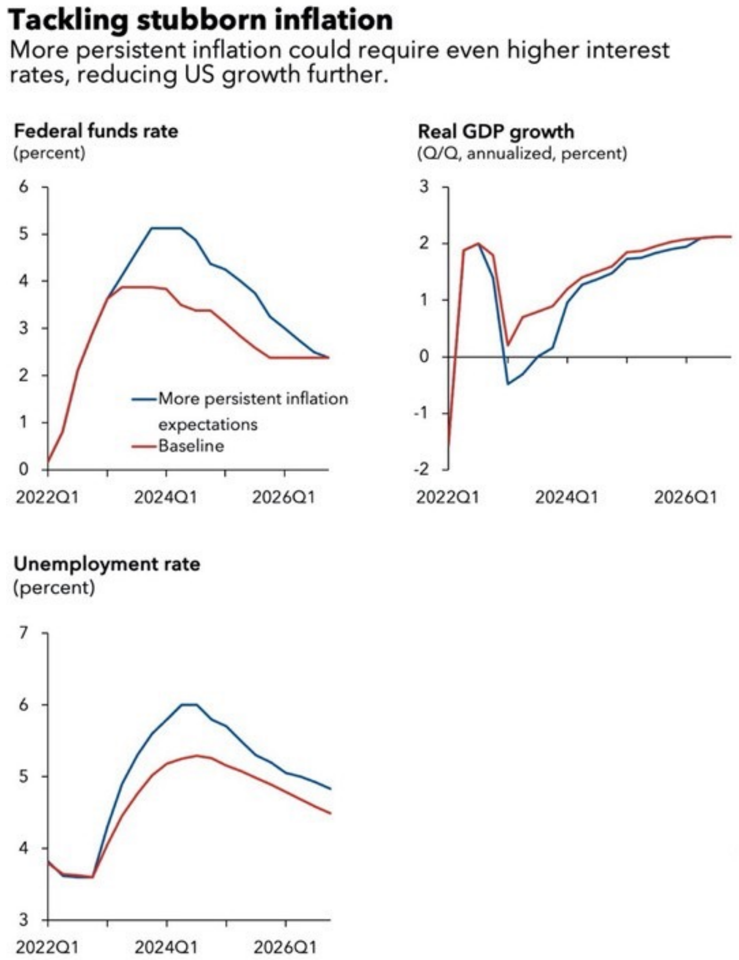
High inflation, rising interest rates, erratic economic activity and volatile markets all increase the likelihood of a recession in the U.S. economy.

The Fed has raised policy rates by 1.5% so far this year and could raise it by another 2% or 2.5% in the coming months. It is also unwinding its holdings of U.S. Treasury securities and mortgage-backed securities. As a result, borrowing costs have increased significantly. For example, the average fixed rate on a 30-year mortgage has risen from 3% to between 5% and 6% since the start of the year. Meanwhile, the government is reining in spending as a series of pandemic-era support packages are set to expire.

Higher mortgage rates will lower home prices, which have grown strongly during the pandemic. Finally, slowing demand will increase the unemployment rate to around 5% by the end of 2023, which should reduce wages.

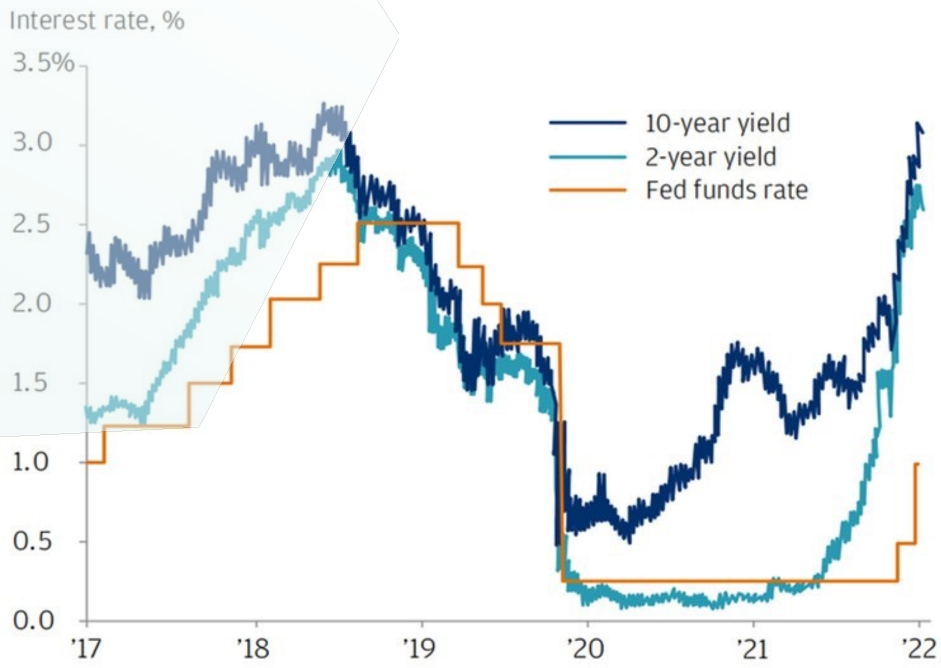
POLICY ANALYSIS

U.S. economic development will be affected by global factors such as Russia's war with Ukraine, the ongoing pandemic, and the possibility of another shutdown in China. Furthermore, the longer inflation remains high, the greater the risk of rising inflation expectations, which feed back into wages and prices. In this case, the Fed will need to act more forcefully to lower inflation, raise interest rates and keep them high for an extended period of time. This will further reduce growth and lead to higher unemployment.



CURRENT MACRO TREND & EVENTS THAT MAY IMPACT US

One current macro trend that impacts U.S. is the PCE inflation. The Personal Consumption Expenditures (PCE) number represents the total amount of money spent by Americans. It is a measure of the overall health of the economy when tracked from month to month. A target of 2% annual inflation is often set by the Federal Reserve. But recently, inflation has risen above the Fed's goal level. The core PCE prices, which do not include food and energy, increased by 0.6 percent in June 2022 compared to the previous month, which was higher than the market's forecast of 0.5 percent. Ahead of market estimates of 4.7 percent, the annual rate, the Fed's preferred measure of inflation, increased from 4.7 percent to 4.8 percent in the previous month. The rising price is causing a lot of trouble for American consumers. Without the Covid-19 subsidy, individual consumers cannot afford higher food and gasoline prices. The consumer sentiment has fallen, and business activities has also slowed.

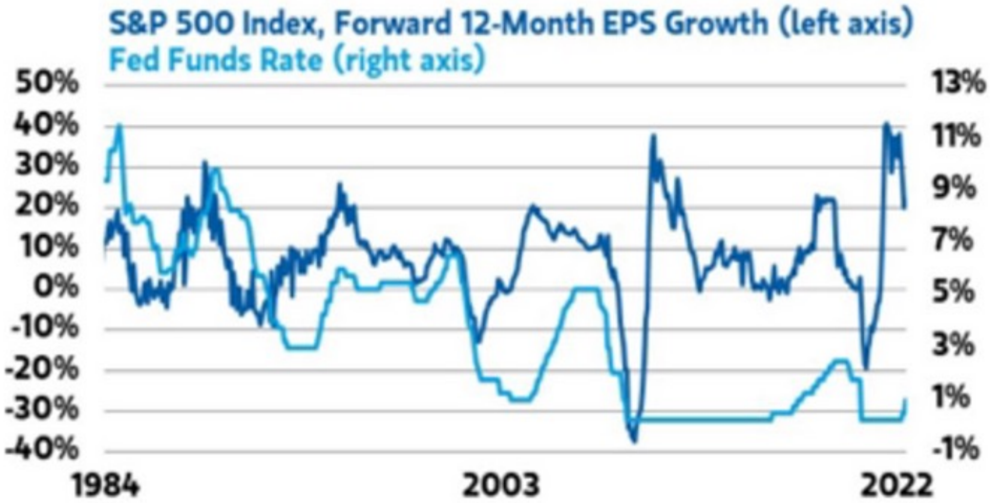


Source: FactSet. Data as of May 10, 2022.

CURRENT MACRO TREND & EVENTS THAT MAY IMPACT US

Another big event that impacts U.S. is that U.S. bond yields have soared to cycle highs. The return an investor receives from a bond investment is known as the bond yield. As a bond's price increases, its yield decreases since price and yield have an inverse relationship. In the midst of a global bond panic sparked by worries that the Federal Reserve may need to tighten policy aggressively to control inflation, U.S. Treasuries fell, pushing benchmark rates to their highest level in more than a decade. The yield on 10-year notes increased 13 basis points to 3.28%, exceeding its peak in 2018 and trading at its highest level since 2011. The increasing of U.S. bond yields will lead to a part of the international capital flow to the U.S. The bond yields rise on surface, which actually means an increase in the supply of U.S. dollars. The scale of U.S. bonds is huge, and the faster the interest rate increases, the faster the depreciation will be. The rise in U.S. bond yields first influences the U.S. fiscal pressure. To solve the government’s financial crisis, the U.S. has issued a large number of bonds, and the rise in yields means that the government’s future interest repayment burden will increase, As the large holders of US Treasuries, the total amount of US Treasures held by foreign buyers will affect the credit expansion in the U.S., so they are the key factor in the rise and fall of the U.S. dollar exchange rate. If overseas investors demand for US Treasuries is still stagnant and US Treasuries are sold further, a crisis in the U.S. domestic repurchase market can be triggered and the dollar might drop.

CONNECT US MACRO SITUATION TO US STOCK MARKET (S&P 500) & PROVIDE FORECAST



Source: Alpine Macro, Bloomberg as of June 22, 2022

At the beginning of the CPOVID-19 epidemic, the US gave the American public a large amount of money, which stimulated consumption and good economic data. At the same time, due to the abundance of funds in the market and excellent financial statements of listed companies, the US stock market shook for a short period of 3 months and then rose significantly, with the NASDAQ index doubling in 12 months.

U.S. stocks rose sharply, undoubtedly making the hands of U.S. stockholders more money, but also more stimulated consumption, but the U.S. real economy is very bad, the U.S. trade deficit is a record high, with the U.S. stock prices soaring, the pressure on U.S. stocks to raise interest rates is increasing, but the U.S. real economy can not, raising interest rates will make the U.S. real economy worse, but not raise interest rates, the U.S. price index CPI is getting higher and higher, there is a risk of economic crisis.

CONNECT US MACRO SITUATION TO US STOCK MARKET (S&P 500) & PROVIDE FORECAST

From the rendition of the recession trade in mid-June, we saw a corresponding adjustment to it in early August in the U.S. Since the 75bp rate hike landed at the Fed meeting in mid-June, both the U.S. equity and bond markets began to see a sentiment repair: the 10-year U.S. bond yield retraced from 3.5% all the way to 2.5%, while the S&P 500 rallied nearly 20% from the bottom to levels around early May. The pattern of both equity and bond rallies was priced in with the essence of easing liquidity - especially after economic data turned significantly weaker and the market began to price in the Federal Reserve soon stepping in to deal with the recession.

However, things have changed a bit since early August. The first turnaround has been in US bonds: so far on 1 August, the 10-year US bond rate has risen to 3% from 2.5% at the bottom, and the 2-year US bond rate has risen to 3.3% from 2.9%; then the US dollar has also started to rally: so far on 12 August, the dollar index has risen above 109 from around 105, which has put some pressure on the industrial metals as well as gold, which were rising earlier; so far on 15 August, US stocks have also began to show signs of a pullback from their highs.

Stronger than expected corporate results and guidance, coupled with optimism that the Federal Reserve is fighting decades of high inflation and raising interest rates but may avoid damaging the economy, has sent the S&P 500 up about 13% from its mid-June low. Analysts expect the S&P 500 to close higher still this year.

CONNECT US MACRO SITUATION TO US STOCK MARKET (S&P 500) & PROVIDE FORECAST

According to the latest Reuters survey of strategists, the S&P 500 will close the year slightly above its current level, after the index had rebounded from its bear market lows. According to the median forecast of nearly 50 strategists surveyed by Reuters over the past two weeks, the S&P 500 will close the year at 4,280, which is 3.4 percent above Monday's close of 4,137.99. This median forecast is lower than the Reuters survey conducted in late May. According to the median estimate in the latest Reuters survey, strategists expect the S&P 500 to continue to rise in 2023, hitting 4,408 points by mid-year. The Dow Jones Industrial Average Stock Price Index is set to close the year at 34,200, up about 3.4 per cent from Monday's close, the survey showed. The S&P 500 has fallen about 13 per cent so far this year since the global sell-off caused by the 2020 epidemic. Slightly more than half of the strategists surveyed expect market volatility to rise, not fall, over the next three months.

Investors are concerned about whether profits are growing fast enough to support stock valuations, especially in light of the recent stock market rally. The 12-month expected P/E ratio for the S&P 500 is currently around 18 times, compared with 22 times at the end of December, and the long-term average P/E ratio is around 16 times, according to Refinitiv. So personally, I would not really advise investors to put most of their money into the US stock market as its instability and continued downward trend makes the chances of gaining very shaky and has to be approached with caution. However, for some investors who want to speculate, the next stock market session is also an unbeatable opportunity for high risk and high reward.

Still, in the longer term, the definite downtrend for US stocks is intact. The Nasdaq has plunged 28.1% this year, the S&P 500 is down 20.5% and the Dow Jones is down 15.7%. Many technology stocks have fallen just as much. For example, so far this year, Tesla is down 32%; Apple is down 15%; Microsoft is down 23%, etc.

KEY WORDS

Federal Reserve A central bank is a financial institution given privileged control over the production and distribution of money and credit for a nation or a group of nations. The Federal Reserve (Fed) is the central bank of U.S.

Inflation Inflation is a rise in prices, which can be translated as the decline of purchasing power over time.

Labour market The labor market, also known as the job market, refers to the supply of and demand for labor, in which employees provide the supply and employers provide the demand.

Monetary policy Monetary policy is a set of tools used by a nation's central bank to control the overall money supply and promote economic growth and employ strategies such as revising interest rates and changing bank reserve requirements.

Personal Consumption Expenditures(PCEs) An estimated total of personal consumption expenditures (PCEs) is compiled by the U.S. government monthly as one way to measure and track changes in the prices of consumer goods over time.

Bonds A bond is a fixed-income instrument that represents a loan made by an investor to a borrower (typically corporate or governmental). A bond could be thought of as an I.O.U. between the lender and borrower that includes the details of the loan and its payments.

Yield subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision

Unemployment rate The unemployment rate is the percentage of the labor force without a job.

Mortgage-backed securities(MBS) A mortgage-backed security (MBS) is an investment similar to a bond that is made up of a bundle of home loans bought from the banks that issued them. Investors in MBS receive periodic payments similar to bond coupon payments.

Portfolio balance There isn't one single portfolio balance that suits every investor. The best way to balance your portfolio must take into account your risk tolerance, goals, and evolving investment interests over time.

Securities The term "security" refers to a fungible, negotiable financial instrument that holds some type of monetary value. A security can represent ownership in a corporation in the form of stock, a creditor relationship with a governmental body or a corporation represented by owning that entity's bond; or rights to ownership as represented by an option.

Federal Open Market Committee(FOMC) The term Federal Open Market Committee (FOMC) refers to the branch of the Federal Reserve System (FRS) that determines the direction of monetary policy in the United States by directing open market operations (OMOs).

Mortgage-Backed Security(MBS) A mortgage-backed security (MBS) is an investment similar to a bond that is made up of a bundle of home loans bought from the banks that issued them. Investors in MBS receive periodic payments similar to bond coupon payments.

The Great Recession The Great Recession was the sharp decline in economic activity during the late 2000s. It is considered the most significant downturn since the Great Depression. The term "Great Recession" applies to both the U.S. recession, officially lasting from December 2007 to June 2009, and the ensuing global recession in 2009.

Taper tantrum The phrase, taper tantrum, describes the 2013 surge in U.S. Treasury yields, resulting from the Federal Reserve's (Fed) announcement of future tapering of its policy of quantitative easing. The Fed announced that it would be reducing the pace of its purchases of Treasury bonds, to reduce the amount of money it was feeding into the economy. The ensuing rise in bond yields in reaction to the announcement was referred to as a taper tantrum in financial media.

Trade deficit A trade deficit occurs when a country's imports exceed its exports during a given time period. It is also referred to as a negative balance of trade (BOT). The balance can be calculated on different categories of transactions: goods (a.k.a., “merchandise”), services, goods and services. Balances are also calculated for international transactions—current account, capital account, and financial account.

Bull market A bull market is the condition of a financial market in which prices are rising or are expected to rise. The term "bull market" is most often used to refer to the stock market but can be applied to anything that is traded, such as bonds, real estate, currencies, and commodities. Because prices of securities rise and fall essentially continuously during trading, the term "bull market" is typically reserved for extended periods in which a large portion of security prices are rising. Bull markets tend to last for months or even years.

MACRO ANALYSIS REPORT

Related to U.S. inflation

- Analysis of the U.S. economy
- Monetary policy
- Current Macro Trend & Events that may impact US
- Connect U.S. macro situation to U.S. stock market(S&P500) &Future prediction

[GROUP B]

Chen Liying
Sun Yueming
Lin Xiao
Xie Xueying

INVESTMENT OUTLOOK 2022

INTRODUCTION:

This report analyses the current U.S. economy (including inflation rate, unemployment, and GDP growth). For the investors to make a safer and more profitable investment in S&P 500, we also provide suggestions and predictions of current and future prices of this equity.

U.S. ECONOMY

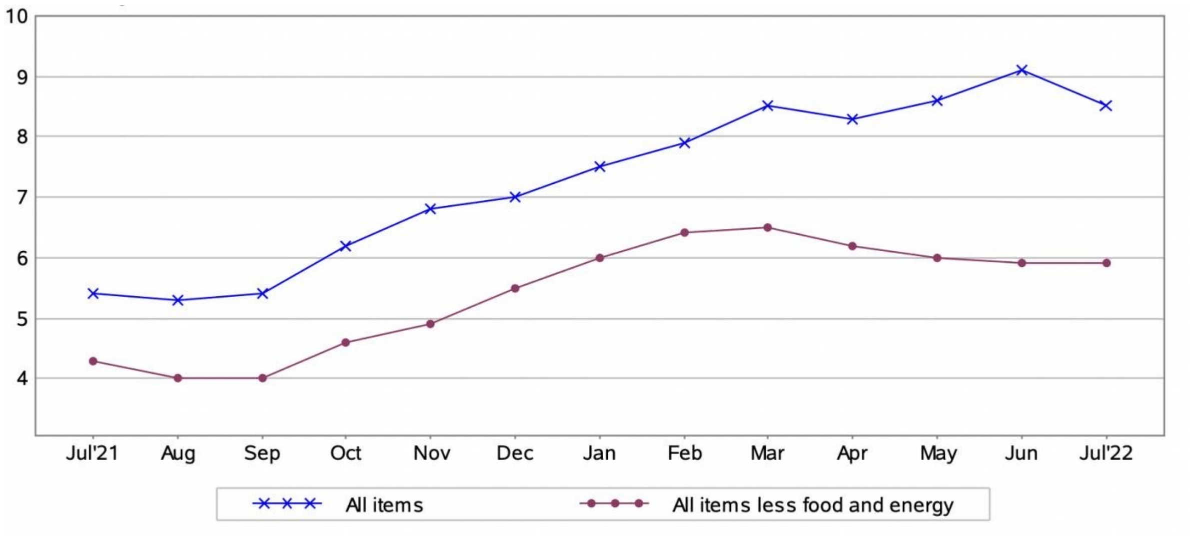
Inflation:

Overall, from the graph 1-1 given below, there had been a growing trend in the CPI growth rate (blue line) for all urban consumers, starting from a 4 percent growth in August 2021 and reaching the peak of 9.1 percent in this July.

The main reason for this 40-year-high inflation rate is the extraordinary demand for goods. In 2021 many countries had emerged from lockdown, and that boosted aggregate demand for goods and services, leading to a surge in the inflation rate. Nevertheless, this trend will not last long. It is estimated that by the end of this year such demand will gradually return to normal level due to consumers' exhausted stock of windfall money from government subsidies during COVID-19.

Other than the surge in demand, the Ukraine War is another factor that may affect the inflation rate in the U.S. Since the start of the war, the prices of commodities had been growing high due to the constraints on supply. At the same time, suppliers may further raise the price since they worry about the disruption in future supply.

In order to stop prices from rising so quickly, the Federal Reserve (central bank of America) hiked the country' s interest rate by 0.75 percent on July 28, 2022, resulting in a range of 2.25% to 2.50% of its interest rate. And it is estimated that the interest rate will continue to rise to fight inflation.

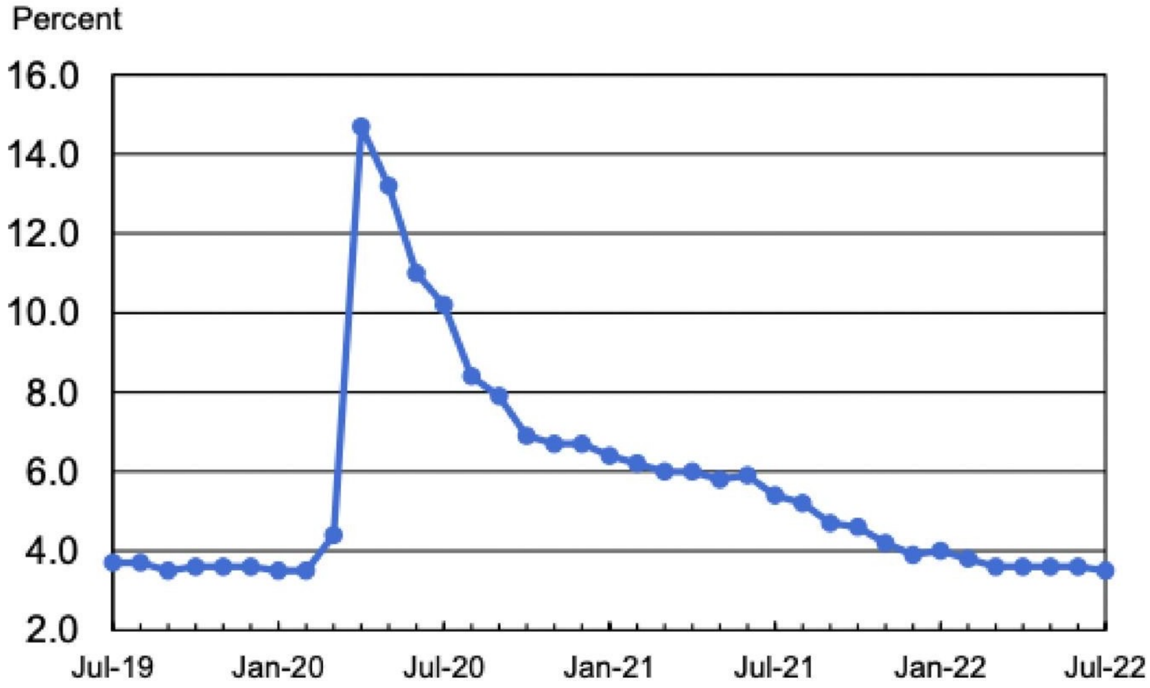


1-1: 12-month percent change in CPI for all Urban Consumers, not seasonally adjusted

Unemployment：

Despite the rocketing national unemployment rate in June and July 2020 (14.7%), the situation has been moderated in the next 2 years. In 2022 the number has remained at 3.6 percent, and it is 2.3 percentage points lower than in June 2021.

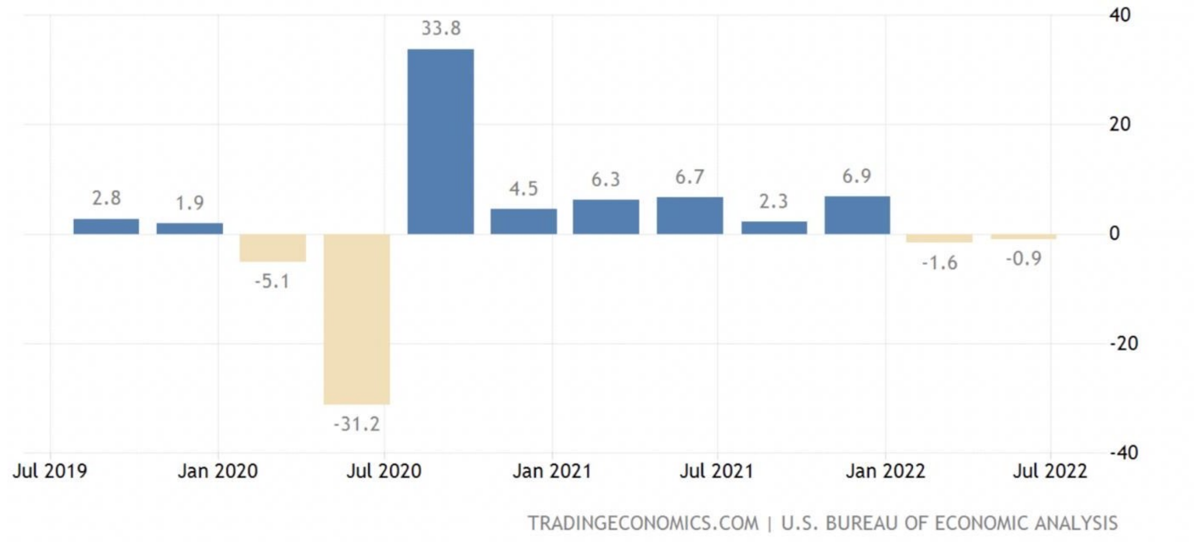
This level of the unemployment rate is within the range of a "healthy rate" (3% to 5%). However, as Federal Reserve planned to raise interest rates just as mentioned in the previous section, the unemployment rate will continue to rise along with the interest rate. The further increase in the unemployment rate may lead to reduce in unemployed people' s demand and ability to spend, while states and governments face a heavy burden of high payments to support these jobless belabour.



1-2: unemployment rate, not seasonally adjusted

GDP growth:

In 2022, after the strong recovery of the economy from Covid-19 in 2021, the economy somehow fell back to a slight recession, as Fed aggressively raises interest rates to combat surging inflation. Hiking interest rate represents a higher return on savings, it tends to curb consumption and investment, acting as a brake on slowing down the economy.



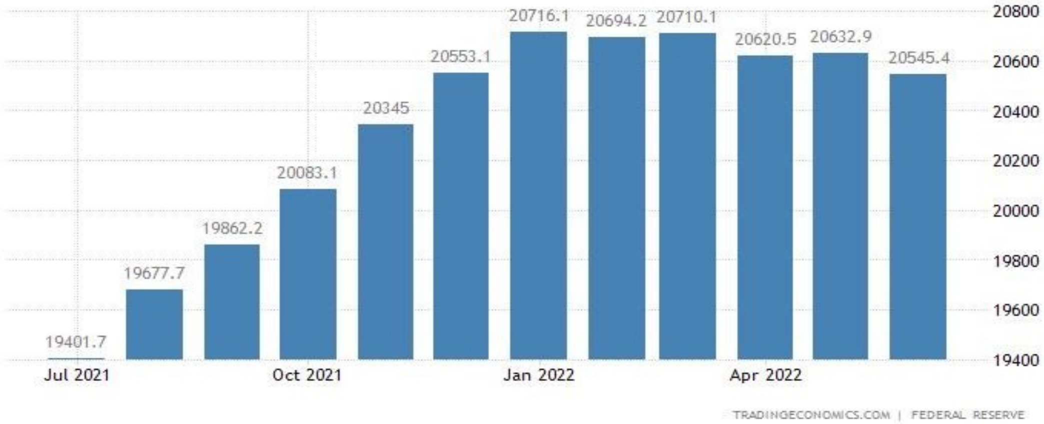
The U.S. GDP growth rate

MONETARY POLICY

The U.S. central bank has adopted a variety of monetary policies to stabilize prices and increase employment to moderate the economic situation after the outbreak of the new peak in 2020. The monetary policy includes the deployment of interest rates, controlling the supply of dollars, adjusting the exchange rate and controlling credit. Also, quantitative easing is a policy that the U.S. has been good at using to stabilize the economy since the 2008 economic crisis, which is a special term meaning that the central bank increases the money supply by buying large amount of treasury bonds at low interest rates.

MONEY SUPPLY

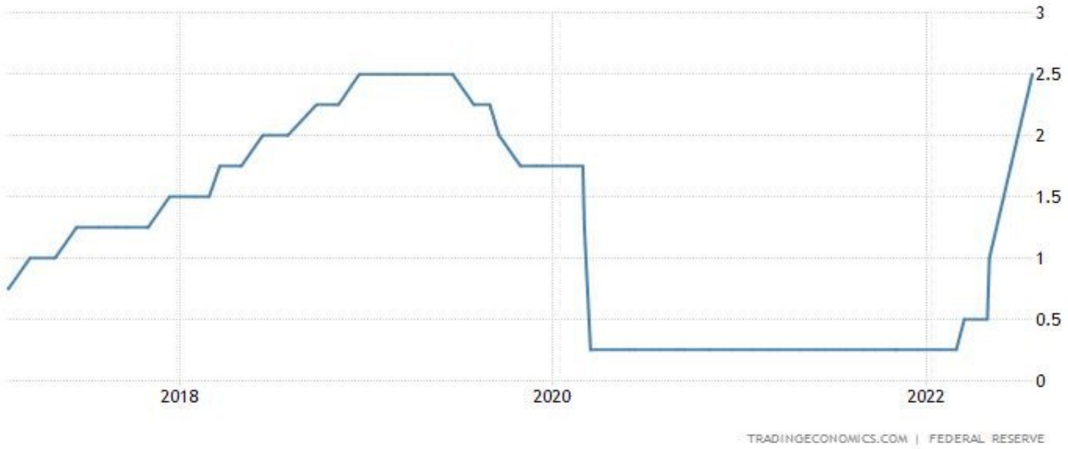
Since 2020, the U.S. has printed more than $4 trillion to boost domestic consumption and purchasing power and reduce the country's fiscal burden, but the domestic inflation situation has become more severe, and even so, the U.S. is still burdened with a huge foreign debt. The additional printing of dollars provides the U.S. financial system with sufficient financial capital to maintain the stability of financial markets and ensure the liquidity of domestic dollars to slow down the economic recession. But this move has aggravated inflation.
The graph shows the amount of dollar supply since June 2021.



INTEREST RATE

Since 2021, inflation in the U.S. has been getting severe and new highs have emerged for several times. The high prices of commodities around the world have caused global inflation, and the inability of economic growth to offset inflation has caused hyperinflation. The U.S. has raised interest rates several times to turn the economic situation into a better one, going to prompt people to save and borrow less and spend less, thus reducing aggregate demand in order to curb inflation.

As the graph shows, U.S. interest rates have remained at a stable value at about 0.25 after 2020, but from 2022 onwards, the U.S. central bank has continued to raise rates and is now close to its former highest value which is 2.5.



EXCHANGE RATE

Inflation in the U.S. leads to a decrease in the value of the dollar, fewer speculators will invest for the dollar, and the demand for the dollar decreases, leading to a lower exchange rate for the dollar. The U.S. has a floating exchange rate system, so the central bank does not exercise strict control over the exchange rate. As the graph shows, the dollar's exchange rate has slowly increased after the big drop but not to the previous value.

QUANTITATIVE EASING

The Federal Reserve announced on March 15, 2020 that they would purchase $700 billion worth of government debt bonds and mortgage-backed securities from domestic financial institutions over the next few months, increasing the underlying money supply. But this quantitative easing program greatly increased the Fed's balance sheet because they purchased such a huge amount of assets. This action was taken in response to the adverse effects of the global COVID-19 pandemic on the U.S. economy. The U.S. had already reached the desired rate of inflation through quantitative easing in early 2021, but still chose to continue this policy, drifting down the wrong path, compounded by the snowballing supply chain disruptions brought on by the recurring pandemic, exacerbating the level of inflation in the U.S.

Current Macro Trend & Events that may impact US)

Stagflation has arisen due to government interventions in the US. The government has provided welfare to the unemployed workers, helping them to earn more disposable incomes than already working workers. As a result, more laborers decided to qualify for receiving the welfare by stopping their work, leading to shrinkage of output, which exacerbates the inflation and GDP furthermore. However, over 1.2 million American workers returned to the labor market due to waning concerns about COVID-19. As a result, the wage rage inflation has been moderated in 2022. And these workers are able to produce more goods with proliferated demand to the market in order to plunge the price of these goods, resulting in a receded inflation rate.

Furthermore, the 30 years fixed mortgage rate has increased since 2021, leading to decreased mortgage application and the 10 years US treasury fall to roughly 2.5%, which is caused by inflation.

Events

Due to the breakdown of supply chains (lockdown in China), severe weather, another epidemic of COVID-19 and global recovery, the prices for bulk commodities have proliferated materially. And the military dispute between Ukraine and Russia exacerbated the situation furthermore, which led to a 9.1 % CPI in the US in 2022. In order to solve this high inflation, the Fed decided to raise interest rates, which may slow down economic growth.

On the other hand, this dispute may help to boost the natural gas industry in the US. In order to restrict Russia, European countries may purchase natural gas and oil from the US as a substitute for Russia. Due to incremental demand, these industries may experience a quick growth. The US may become the largest liquefied natural gas exporter by the end of 2022.

Due to high inflation, young US teenagers tended to move to Mexico, which may reduce the workforce in the US labor market. As a result, output may decrease and inflation may be pushed to a higher level.

After Nancy Plosive visited Chinese Taiwan, the indexes in the stock market started to drop and negatively affect the trading relationship among China and the US. This trading relationship provided more than 2 million jobs for Americans. When the relationship between China and the US deteriorates, Chinese importers may decide to purchase oil and natural gas from Russia rather than the US , which may cause the financial pressure in the US to worsen furthermore.

How will S&P 500 be affected by the three factors?

With the above analysis, it is clear that a weakened economy is not a good opportunity for the market S&P500. We expect the price of this equity to fall since Federal Reserve continued to hike the nation’ s interest rate.

FUTURE PREDICTION FOR THE MARKET

From this chart, we can clearly see the current situation of the S & P 500 index in the United States on June 16, 2022. The S & P 500 index of the United States reached the lowest value of 3666.77. The reason still lies in the impact of the Russian Ukrainian war and the epidemic on the US stock market and inflation. Between June 7 and June 17, the S & P 500 index fell nearly $500 per share. This is extremely unhealthy. Because after inflation in the United States, interest rates and exchange rates will rise. At the same time, CPI is also rising. As a result, the price level in the United States increases with the increase of costs, the cost of raw materials also increases, and the cost demanded by manufacturers also increases. High inflation rate has become a major situation problem in the United States.

From the perspective of US policy. From June to August, the

United States has been raising interest rates. After the interest rate hike in July, the S & P 500 index of the United States eased. Increased by nearly $600 per share. This is due to the continuous interest rate increase of 75 basis points from June to July to further curb inflation. However, with the improvement of the epidemic situation in the United States and the shelving of the war between Russia and Ukraine. It is expected that the US will slow down its interest rate hike policy in the next quarter. Meanwhile, the macro trend of the S & P 500 index will continue to rise. In the long run, it is beneficial for the United States to curb inflation.

Key words:

1)Inflation: Inflation is a rise in prices, which can be translated as the decline of purchasing powerover time. The rate at which purchasing power drops can be reflected in the average price increase of a basket of selected goodsand services over some period of time.

2)Unemployment rate: The unemployment rate is the percentage of the labor force without a job. It is a lagging indicator, meaning that it generally rises or falls in the wake of changing economic conditions, rather than anticipating them.

3)S&P500 Index: The S&P 500 Index features 500 leading U.S. publicly traded companies, with a primary emphasis on market capitalization. The S&P is a float-weighted index, meaning the market capitalizations of the companies in the index are adjusted by the number of shares available for public trading.
4)Quantitative easing: Quantitative easing is a form of monetary policy in which a central bank, like the U.S. Federal Reserve, purchases securities from the open market to reduce interest rates and increase the money supply. Quantitative easing is a form of monetary policy used by central banks to increase the domestic money supply and spur economic activity.
5) Exchange rate: An exchange rate is a rate at which one currency will be exchanged for another currency and affects trade and the movement of money between countries.