Analysis of the Influence, Reason and Recovery of U.S. Inflation on Different Industries

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Abstract. Over the past 10 years, the US inflation rate has been perfectly controlled at around 2%, which is the ideal target range of the Federal Reserve. This situation has been maintained until March 2021. But it began to climb upward in April and reached a peak in February 2022. To explore the causes of American inflation and its impact on the real economy, this paper selects the food, real estate, energy, and automobile industries as the research targets. According to the data from March 2020 to the present, we find that although the price change trend of various assets is rising, the change range is inconsistent, which is related to the price elasticity of the product itself. In addition, combined with the current policies and relevant industry information, the paper analyzes the recovery schemes of various industries. Moreover, considering the Fed's interest rate hike, asset prices are expected to gradually fall in the future.

Key words: Inflation; CPI; Energy; Quantitative Easing.

1. Introduction

Ever since the outbreak of COVID-19, many industries experienced a huge decline because of the pandemic. With the outbreak of COVID-19, Europe is becoming the center of the outbreak, and the European auto industry is facing a situation of suspension. As the country with the most serious epidemic in Europe, Italy was the first country to implement blockade measures nationwide, and then Spain and France began to follow Italy's example. In response to the epidemic and the automobile demand crisis, major automobile manufacturers have announced the temporary closure of European factories or the reduction of factory production [1]. Generally speaking, appropriate inflation is conducive to the improvement of the overall economy. If vicious inflation occurs in Venezuela, it will be very harmful. Appropriate inflation will lead to the devaluation of the currency. People can avoid devaluation by buying more things and promoting consumption. Consumption drives the country’s economy, thus contributing to economic prosperity. To summarize everything that has been started so far, inflation isn’t bad for the economy and daily life. According to the CPI, the annual rate of inflation in the U.S. hit 7.9% in February 2022, the highest in more than three decades. The Covid-19 inflation is much different from the other period inflation increase, and the impact of the epidemic on prices mainly lies in the stagnation of production. The imbalance between supply and demand has led to the soaring prices of many necessities.

Consumer demand outstrips the supply of goods and services. Through the pandemic period, unemployment rising, wage pressures are limited. Covid-19 cases driving up U.S. layoffs. At the same time, the Biden administration’s $1.9 trillion stimulus plan will reduce demand and act as a force behind inflation. Mass unemployment continues to weigh on economic growth and demand. According to Figure 3, GDP through the Covid-19 pandemic period has a big decrease in 2020-2021. If the government doesn't provide the extra relief funds, it has a big chance to lead layoffs in Winter. Quantitative easing in the United States alleviated the liquidity crisis, but it had a very great impact on finance [2].

With the outbreak of the epidemic, the United States has issued several policies to save the capital market, which has attracted the attention of many scholars. Reins Dorf thought Covid-19 has greatly affected the price level, making the CPI rise significantly. The prices of all components have increased significantly, which has brought living pressure to people's daily life [3]. Yu found that after the outbreak of the epidemic, many countries have implemented strict control measures, and the proportion of remote office has increased significantly, especially the large Internet companies, which has stimulated the growth of office software [4].

In addition, Tan et al. studied the impact of COVID-19 on oil prices. Although the output of major oil producing countries has slowed down, the shortage of demand has greatly affected oil prices. [5]. Moreover, Narayan evaluated the impact of news on oil prices was evaluated. The results showed that the repeated epidemic caused the fluctuation of oil prices, and the bulk market was also impacted. [6]. Hoesli and Malle analyzed that the impact on residential and office buildings was studied. The impact of the epidemic caused the rise of price elasticity in this part, which had a great impact on the real estate sector [7].

Therefore, this paper wants to explore the influence of the Covid-19 and related inflation problems on America. We selected several industries seriously affected by the epidemic for analysis, including food, real estate, energy, and automobile.

2. The current state of different industries affected by Covid-19

2.1 Food Industry

The data shows that there is inflation that happened in 2021. According to Figure 1, the Food inflation rate in the United States reached 6.1%, 2.2% higher than in 2020 [8].

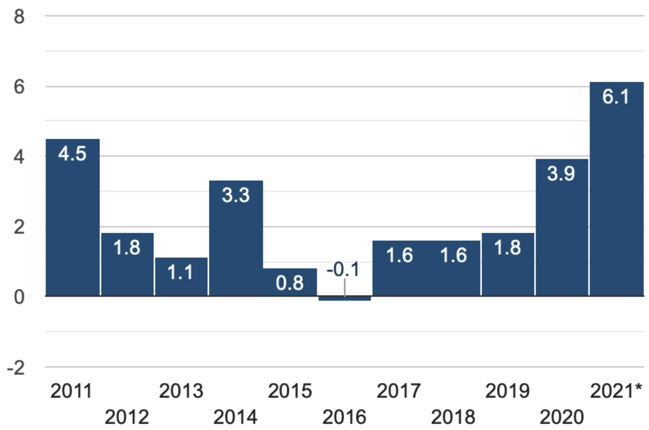

Figure 1. Food Inflation Rate in the U.S. from 2011-2021 [8]

Based on the U.S Department of Agriculture's Economic research service, the food bought from restaurants' CPI rose 0.6% in October, 5.8% higher than in 2020. From October, the CPI of food purchases from stores and supermarkets, which people cooked at home, increased 0.3%. This was about 6.4% higher than the previous year [9]. In specific, a report shows that lettuce prices increased 6.9%, pork prices went up 2.2%, fruit is 2.2% up, hot dogs and donuts increased by the rate of 2.8% and 3.5%. Beef increase most significantly and hugely with the rate of 20.9% [10]. The inflation also influenced the menu prices. CNBC reported that U.S. menu prices increase 4% from January to June, the largest increase since 2008. Famous brands, for example, McDonald claimed that the prices raised about 6% in October. CNN reported that Chipotle raised its prices by 3.5% to 4% [11]. These are all evidence that inflation is happening in the food industry.

2.2 Real Estate Industry

The Covid-19 has severely impacted real estate markets. Governments imposed lockdown orders as most people contracted the virus. As shown in Figure 2, the number of commercial and residential real estate sales has fallen, and households are strapped for cash as they need to repay loans [12].

Figure 2. Existing-home sales in the U.S.

After the government lifted the ban, the housing market grew dramatically, surpassing pre-pandemic figures. As a result of a series of actions by the U.S. government to stimulate the economy, real estate inflation has resulted. In general, the real estate market has accelerated the decline under the influence of the epidemic, which may usher in an integration period for relevant construction companies and industries [13].

2.3 Energy industry

Crude oil prices have been battered by an unprecedented decrease in global oil demand stemming from the Covid-19 pandemic. Yet the fallout of the current COVID-19 pandemic has taken everyone by surprise, pushing oil prices to a new low. But along with a series of stimulus policies in the United States, oil prices rose but caused galloping Inflation.

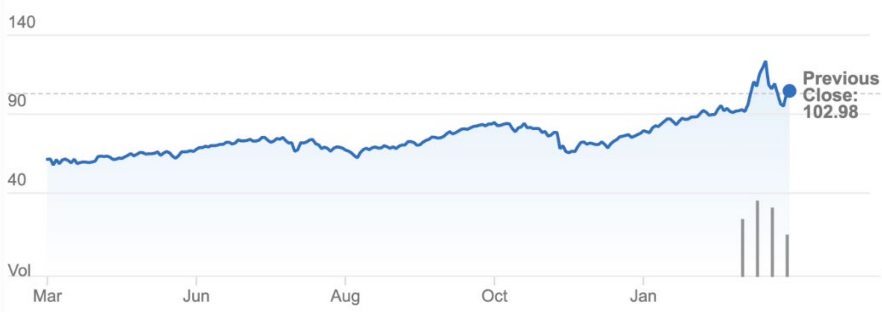

Figure 3. The price of crude oil from 2021.3 to 2022.3

The price of coal is much more stable than that of oil. When the epidemic started in 2020, the price of coal plummeted to the bottom until the middle of 2021. The price of coal is much more stable than that of oil. When the epidemic began in 2020, coal prices plunged to their lowest point. But by mid-2021, the price of coal had roughly doubled, thanks to U.S. government incentives. In early 2022, Indonesia, the World's biggest exporter of thermal coal, banned exports of coal in January, aiming to secure supply to domestic power plants. This decision makes Newcastle coal futures bolt higher in the wake of the Indonesia coal export ban.

2.4 Automobile industry

Affected by the Covid-19, many auto companies worldwide have announced temporary plant closures, and many auto companies' employee salaries have been affected. The global spread of the epidemic will be a severe test for any auto company, as auto production involves many links upstream and downstream. Daimler, Volkswagen, FCA, and PSA are among a growing number of auto companies that have closed plants due to the pandemic. Several global car companies, including

General Motors and Ford, have announced wage cuts or wage deferrals. Ford’s top 300 executives will defer 20 to 50 percent of their pay for at least five months from May 1. Axel Tangen, head of Tesla’s Nordic operations, said the company planned to furlough some employees because of slowing demand in an email to Norwegian employees. Tesla also planned to reduce the field workforce at its Nevada battery plant by about 75 percent [14]. The impact of the Covid-19 on the auto industry goes beyond the suspension of production at some factories and wage cuts at auto companies. In the World of economic integration, the automotive supply chain is increasingly globalized. In addition, the used-car industry has also been badly affected. Since March of 2020, used car prices are up a staggering 39.8%. During that same period, the BLS inflation measurement for new car prices is up 8.9%, while overall, U.S. inflation is 6.3% [15].

3. Analysis of the current situation of Inflation in the U.S.

3.1 Food industry

As shown in Figure 4, food inflation is close to Creeping inflation. The inflation rate is less than 10% annually (6.1% in U.S. 2021) and slowly increases over time. One of the reasons is the shortage of labor. The companies cannot employ enough workers to reach the market's demand. Therefore, they need to plan. Another reason that causes food inflation is that transportation cost becomes higher. This is due to the increase in oil price, which makes the shipping cost higher. According to the IMF, the Baltic Dry Index measures the shipping cost have gone up double in the past year [16]. And this led to an increase in the price of the food. There is a hazard of food inflation. If the price keeps going up and inflation keeps rising, people with low income (with an annual income lower than $52,200) might not afford the food, which will lead to social unrest [17].

3.2 Real estate industry

Since the outbreak of the epidemic, the order of business activities in the U.S. construction industry has been seriously impacted, resulting in insufficient construction and delayed completion of new houses, leading to a "housing shortage". In the epidemic, on the one hand, the American people were forced to reduce spending in areas such as life and entertainment. On the other hand, the three rounds of relief plan provided by the federal government gave people more discretionary surplus money, which further increased their willingness to invest in real estate. Therefore, the contradiction between supply and demand is further sharpened. However, the low-interest rate of housing mortgage loans is also the key factor to further promote real estate investment. As a result, the Federal Reserve has implemented zero interest rates and unlimited quantitative easing since 2020, which has led to the situation that market interest rates have been significantly depressed, and it is difficult to escape the relationship. Although the mortgage interest rate has rebounded since the beginning of the year, it is still at the bottom compared with the historical average. In addition to being affected by the Federal Reserve's zero interest rate policy on federal funds, which will continue until at least 2023, as part of the loose bond purchase measures, the Federal Reserve has also purchased a large number of mortgage-backed assets (MBS) in the open market, which has injected more liquidity supply into the housing market.

3.3 Energy industry

At the outbreak of Covid-19, the oil price sharply decreased but get a huge rise in the middle of 2021. Rising oil prices are also fueling inflation. The oil inflation is closer to creeping inflation but more severe in it. At the end of 2021, front-month Brent futures prices have been roughly double what they were in the same period last year, with prices increasing at the fastest rate for two decades [18]. One of the reasons for oil inflation is that the World is back up, raising the lockdown. Every country’s government wants to make up for a lost time, increasing demand. Second, Hurricanes Ida and Nicholas damaged U.S. oil infrastructure in the Gulf of Mexico. Damaged oil infrastructure is a sign that there will be a shortfall. Third, coal shortages in Asia have seen countries on that continent use more oil than they used to. In the meantime, Europe and Asia switch to petroleum products because of a coal and natural gas shortage. The oil price has skyrocketed such a surge in oil demand combined with low oil inventories [19]. Therefore, the oil production could push the oil price to levels not seen since the early 2010s, and the price level will remain higher.

3.4 Automobile industry

The growing inflation is one of the most serious issues that car buyers and dealers face today. Many industries are having major problems due to rising inflation, and the car industry is no exception. As the inflation rate of the automobile industry is lower than 10%, it belongs to moderate inflation. The new emission limits increase costs even further. Emission limits are passed to reduce CO2 emissions. Materials and inflating currencies do not just cause this rising inflation within the car industry. Constantly updated safety regulations inflicted on the car industry make cars more expensive to produce. As a result of rising car prices and the higher cost of finance, consumers will likely keep their vehicles for a longer period.

4. Economic growth/recovery measures to counter U.S. Inflation

4.1 Food Industry

U.S. Department of Agriculture (USDA) stated that the "Farm Service Agency is relaxing the loan-making process", and also adds loans to help producers to keep their production line going [20]. USDA established a list of programs to help the local farmers. One of the programs is the “Spot Market Hog Pandemic Program”, which collected 50 million dollars to assist producers who sold hogs. The Dairy donation Program collected 400 million dollars from dairy producers. The “Organic and Transitional Education and Certification Program” collected 20 million dollars to help crops and livestock producers [21]. USDA also established a local food purchase plan called the “Local Food Purchase Assistance Cooperative Agreement Program (LFPA)”. LFPA collected 400 million dollars for producers, which helped the food system recover from the pandemic [22]. The USDA Agricultural Marketing Service (AMS) stated that they would accept and purchase all local agriculture products to support the producers. Those products will be sent to different places, such as schools [23]. These programs help the producers and keep the production line going as usual. There is also a reduction of tax from the government to help the recovery. Virginia reported that the tax rate for food was reduced by 2.5% [24]. The Treasury Department and the Internal Revenue Service established a temporary plan for food and drinks from restaurants. From the "Taxpayer Certainty and Disaster Relief Act of 2020", companies can deduct 50% of the charges they need to pay for food and drinks. However, the new temporary plan permits companies to make a 100% reduction of payments that they need to afford [25]. As for the enterprises, some restaurants also are trying to keep themselves alive. For example, many restaurants have started to set up delivery services. In 2020, “Uber Eats” (a food delivery App) ’s revenue increases 152% compare to 2019 [26].

4.2 Real Estate Industry

Through the Covid pandemic, real estate prices continued to rise in American real estate, increasing inflationary pressures. To prevent the U.S. housing bubble from bursting, the Federal Reserve’s policy will squeeze house prices from 2022. On March 17, the Federal Reserve announced an interest rate increase of 25 basis points, which is the first interest rate increase since the interest rate increase cycle was stopped at the end of 2018. According to the dot matrix released at the same time, 75% of officials expect to raise interest rates six times after this year, that is, once at the next six meetings, and suggest that the meeting will start to shrink the table as soon as possible. According to the latest Federal Reserve data, a key measure of lending continued to decline at the biggest U.S. banks. Residential real-estate loans hit a historic low as a percentage of total assets at 10.0%.

4.3 Energy Industry

In order to recover the fuel market from the situation caused by the pandemic, U.S. Strategic Petroleum Reserve will let out 50 million barrels and exchange 32 million barrels of petroleum. After this action, the U.S. oil price decreased 1.9% to 75.30 dollars per barrel (reported by CNBC) [27]. Many people believe this will be an effective way to lower the oil price, which is true as the price did lower a little [28]. Also, the U.S. government is ordering OPEC to supply more oil. OPEC agreed to increase the supply by 400,000 BPD per month, which will last until back to normal [29]. In addition, the "Reuters" reported that the White House is talking to the oil and gas companies in the U.S. to lower the costs [30].

4.4 Automobile Industry

The global spread of the epidemic will lead to a sharp decline in automobile sales in the short term. As the main export destination of complete vehicles, Europe, North America, and other regions may have a certain inventory backlog, which will increase the operating cost of enterprises. Affect the capital turnover and investment enthusiasm of enterprises and further impact the upstream industrial chain through downstream terminals [31]. Carmakers are burning through much cash to maintain fixed costs and working capital. The industry has taken steps to conserve cash, including cutting costs and postponing non-essential capital spending and research and development [32].

5. Conclusion

US inflation has again significantly exceeded expectations, and overall and core interest rates are now at their highest levels in 30 years. There is little sign of weakening price pressure and rising inflation expectations, which leads us to conclude that the reduction of quantitative easing will accelerate and the interest rate hike will come earlier. This article takes the inflation caused by the epidemic in the United States as the research background, analyzes the current situation and causes of inflation in four fields: food, real estate, energy and automobile, and gives the corresponding solutions from the perspective of the government and enterprises. On March 16, 2022, the Federal Reserve announced to raise the target range of the federal funds rate by 25 basis points to between 0.25% and 0.5%, which is the first time the Federal Reserve has raised interest rates since December 2018. The Fed's statement predicts that it will be "appropriate" to continuously raise the target range in the future, and will begin to reduce its holdings of US Treasury bonds, institutional bonds and institutional mortgage-backed securities at the next monetary policy meeting, and start the process of reducing the balance sheet. As the Fed enters the tightening cycle, the spillover effect of its monetary policy has aroused widespread concern. We believe that inflation in the United States will be gradually controlled and drive asset prices down.

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