## A White Paper on

## Inflation Conditions in the U.S.: 2022 vs. the 1970s

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Currently, the American economy and American households are experiencing very difficult times with respect to the recent rise in inflation. In times of no inflation, prices on specific goods are continually rising or falling more rapidly than other goods. This is a normal state of affairs, and in competitive societies, competition ensures that prices will always be brought back to an equilibrium level. Yet, during times of inflation there is a rise in the general prices of all goods and services. This places a real hardship on American households because inflation decreases the standard of living for nearly all Americans, as prices rise faster than wages.

In times of inflation, a typical paycheck will buy fewer goods and services than before inflation. For instance, prior to the pandemic, in year 2019 the inflation rate was 2.3%. For various reasons, the goal of the Federal Reserve Bank is to have an inflation rate of 2.0% for any given year. During the first year of the pandemic, when people and businesses were 'locked' down and consumers were staying at home, the inflation rate dropped to 1.4%.

Consumers were restrained from going out and spending money on discretionary items, such as meals in restaurants, movies theaters, shopping at the malls, or going on discretionary travel trips. Then in 2021, vaccines to control the outbreak of CoVid were developed and made widely available to the American public. Soon large numbers of Americans had received the vaccine. Lockdowns were no longer in place and the economy began to re-open.

Because of the lockdowns, there was 'pent up' demand from consumers for all types of goods and services. As the economy opened back up, consumers flush with government stimulus money, began to shop more at local stores and malls, dine out more, go out for entertainment, and take discretionary travel trips.

At the same time, however, there was an extensive supply chain bottleneck throughout the American economy. This resulted from many production workers still calling out sick due to Covid and they were either hospitalized or in self-quarantine. Production facilities could not maintain the same level of production and productivity that they had prior to the pandemic, let alone being able to supply any increase in demand from consumers.

American ports were having trouble keeping up with unloading products arriving from overseas. Hundreds of cargo ships were waiting weeks offshore to unload their cargo. The reason for this was the same as with many domestic production facilities. Dockworkers and other transportation workers were calling out sick due to Covid. Further, American businesses which rely on raw materials from oversea suppliers were finding that their suppliers were 'locked down' as well due to the pandemic. Throughout the global economy, there were supply chain bottlenecks.

As a result of the bottlenecks, American firms experienced delays in receiving much needed inputs from their overseas suppliers. The increased demand resulting from consumer spending combined with the supply chain bottlenecks resulted in a classic case of inflation. Inflation jumped from 1.4% in 2020 to 7% in 2021.

There were other significant factors in the American economy that helped drive inflation even higher in 2022.

- 1. There was, and currently still is, a labor shortage. Prior to the pandemic, baby boomers were retiring in mass. In the third quarter of 2019, 25.4 million baby boomers retired from the labor force. In the third quarter of 2020 that number rose to 28.6 million<sup>1</sup>. The result is that in June 2022, the unemployment rate had dropped to 3.6%. Employers have to pay higher and higher wages to attract workers. To do this, they have to charge higher prices for their goods and services to cover the higher labor costs. Economists refer to this as a wage inflationary spiral if it continues over an extended period of time. From June 2021 to June 2022, wages increased by 5.3%, the highest 12 month increase since the spring of 1983<sup>2</sup>. Unfortunately, due to inflation, the real wage decreased by 2.8% from August 2021 to August 2022<sup>3</sup>.
- 2. Russia invaded Ukraine in February 2022. In response the EU and America put sanctions on Russian crude oil. This caused the price of fuel and other utilities to rise by 12.48% as of June, 2022<sup>4</sup>. Higher fuel prices are a significant driver of the overall rise in inflation within the American economy. The reason for this is that all firms and businesses, regardless of the size and type of business, must use fuel to operate. Furthermore, households need fuel to run their homes and for basic transportation needs.
- 3. Russia blocked the Ukrainian port at the Black Sea which froze the export of Ukrainian grain. This led to inflation in the agricultural markets and caused food prices to rise by 11.4% from August 2021 to August, 2022<sup>5</sup>. Currently, in 2022, inflation is now running at 8.5%. More recently, economists were surprised to find out that prices rose by 9.1% as recently as June 2022. This is the highest inflation has been since November of 1981.

The last time the US saw inflation as high as it is now (2022) was during the 1970s. In 1970, inflation was very much engrained in the American economy. It was occurring annually throughout the 1970s with an average inflation rate of 7.25%. During the 70s, inflation in certain years was more than in other years. For instance, in 1973 it was 8.71%, in 1974 it was 12.34%,

<sup>&</sup>lt;sup>1</sup> https://www.pewresearch.org/fact-tank/2020/11/09/the-pace-of-boomer-retirements-has-accelerated-in-the-past-year/

<sup>&</sup>lt;sup>2</sup> https://www.in2013dollars.com/Fuels-and-utilities/price-inflation

<sup>&</sup>lt;sup>3</sup> https://www.bls.gov/news.release/realer.nr0.htm

<sup>&</sup>lt;sup>4</sup> https://www.in2013dollars.com/Fuels-and-utilities/price-inflation

<sup>&</sup>lt;sup>5</sup> https://www.bls.gov/news.release/cpi.nr0.htm

in 1978 it was 9.02%, in 1979 it was 13.29%, and then in 1980 it had reached  $12.52\%^6$ . Throughout the 1970s and into 1980 inflation was pervasive.

American households and workers came to expect that inflation would re-occur every year. Inflation became expected. When inflation becomes expected, it becomes a self-fulfilling prophecy. Businesses begin to raise prices not just on observed price increases but also on the *expectation* of future inflation.

To control this self-fulfilling prophecy, the Fed aggressively increased key interest rates which triggered a sever recession. The recession was short lived, and it bought inflation down to very manageable levels but at the cost of very high unemployment. Since that time, for the past forty years, inflation has been very tame in the American economy.

The cause of inflation during the late 70s were due to several factors:

- 1. In 1973 OPEC put an oil embargo on America. This caused the price of a barrel of oil to rise by 70% in 1973. This rise in the price of oil was followed by the Americans refusing to buy Iranian oil in 1979 shortly after the Iranian revolution.
- 2. The Fed had put into place expansionary monetary policies through much of the 1970s to help bring down unemployment and grease the wheels of the economy<sup>i</sup>.
- 3. Wage and price controls were instituted in the 70s, however, this is like putting a lid on a pot of boiling water. When the wage and price controls were removed inflation accelerated even further.
- 4. There was excessive government spending on Johnson's Great Society programs, the Viet Nam war, and an expansion of the social security program. This spending led to budget deficits<sup>7</sup>.

There are similarities and dissimilarities to the causes of inflation today compared to the 1970s. Similarities include the following:

- 1. Oil shortages and the rise of oil prices played a major role in both causes of inflation. As stated before, oil is used in all sectors of the economy, from the business sector to the household sector.
- 2. There was excessive spending by the government sector in both 2022 and the 70s.
- 3. There was easy monetary policy during the pandemic and in the 70s.

Major dissimilarities between the inflation of 2022 and the 1970s include:

<sup>&</sup>lt;sup>6</sup> https://inflationdata.com/articles/inflation-cpi-consumer-price-index-1970-1979/

<sup>&</sup>lt;sup>7</sup> https://www.investopedia.com/articles/economics/09/1970s-great-inflation.asp

- 1. In 2022 there was an increase in 'pent up' consumer demand coupled with a nationwide supply chain bottleneck. This did not happen in the 1970s.
- 2. Second, there is currently a severe labor shortage in 2022. This was not the case in the 1970s with many baby boomers entering the labor market for the first time.
- 3. Third, due to the Soviet blockade of the ports in Ukraine, there is a shortage of grain in 2022 which drives up food prices. There was no similar incident in the 1970s. Fourth, in the 1970s, wage and price controls were put into place which fueled inflation once the controls were lifted. This did not happen in 2022.
- 4. Importantly, inflationary expectations have been different during the two periods. By the late1970s, high inflation had been running for nearly 10 years straight. As a result, inflation expectations had taken hold in the mindset of consumers, workers, and firms. As people come to expect inflation in the following year, then it becomes a self-fulfilling prophecy.

This is not happening in 2022. The Fed constantly monitors inflation expectations, and inflation has not yet seemed to be taking hold in the mindset of the American public. For example, the latest poll by the New York Fed found that the one-year inflation expectations dropped from 6.2% in July, 2022 to 5.7% in August, 2022. Even more encouraging is the three-year inflation expectation numbers that dropped from 3.2% in July, 2022 to 2.8% in August, 2022<sup>8</sup>. In March of 1979, the public had inflation expectations of 10% 9.

Faria and Carneiro (2001) state that in the long run, inflation has no impact on output as prices and wages eventually adjust back to an equilibrium level, but in the short run it does have an impact on output. In the short run, inflation effects investments positively since repayment of the contracts are locked in at a fixed rate. However, inflation does impact consumption negatively. Davis and Kanago (1996) further add that an increase in inflation uncertainty will temporarily reduce Gross National Product. This is because agents are hesitant to engage in contracts due to the uncertain inflation environment.

Akitoby, et. al. (2014) writes that increasing inflation expectations in the economy could 'increase long-term real interest rates, distort resource allocations, reduce economic growth, and hurt the lower income households. This would make it difficult for governments to finance budgets and could increase the debt to GDP ratio.

On the other hand, Akitoby, et. al. (2014) state that one benefit of inflation would be to decrease the net debt to GDP ratio as the debt is being paid back with inflated dollars. For instance, having an inflation rate of 6% for five years could reduce the net debt to GDP ratio between 11% and 14%. This is an example of governments 'inflating' their way out of debt. It would be unwise to manufacture inflation for an extended period of time as this will impact inflation expectations of

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<sup>8</sup> https://www.newyorkfed.org/microeconomics/sce#/

 $<sup>^9\</sup> https://libertystreeteconomics.newyorkfed.org/2013/08/creating-a-history-of-us-inflation-expectations/$ 

the public, but Akitoby, et. al. (2014) state that an occasional surprise inflation, such as what we have in 2022 and not what we had in the 70s, could help reduce the net debt to GDP ratio.

However, those authors warn that using inflation to help pay off the national debt could, most likely, result in inflation expectations to increase among the public. This would then cause inflation rates to continually increase higher and higher as confidence in the currency is lost. One significant impact of increasing inflation expectations is that there is a possibility it could raise liquidity, currency and interest rate risks within the economy.

Inflation has a regressive impact on household incomes. Mgammal (2012) writes that unanticipated inflation in an economy will lower the real value of nominal assets and liabilities. This will then lead to a redistribution of wealth from lenders to borrowers. Even moderate inflation leads to substantial wealth redistribution.

Mgammal (2012) writes that the main losers from inflation are the rich, older households, and major bond holders. The winners are the young and middle class households with mortgage debt. Across sectors, inflation is a boon for governments as they can pay down debt with inflated dollars and inflation adjusted wages can push taxpayers into a high tax bracket.

Cardoso, E. A. (1992) wrote that the poor are negligibly impacted by inflation because they have almost non-existent cash holding. However, inflation can wipe out the cash balances of the middle class, thereby increasing the number of poor. The result is that income inequality increases as does the number of people living in poverty.

With respect to food inflation, Donaldson (1976) wrote that the poor spend a larger percentage of their incomes on food and as a result, food inflation impacts them more than higher income groups. Furthermore, the poor are constrained to shop at independent grocery stores that are located within a short distance to their neighborhoods.

Transportation constraints prevent poorer households from shopping at larger chain grocery stores which are located further away from their neighborhoods. Independent grocery stores therefore have less competition from the chain grocery stores and are able to raise their prices without worrying about how chain grocery stores will respond. Since the poor are confined to shop at smaller independent grocery stores within their neighborhood, they do not have the number of substitute products available to them.

Of interest, Monnin, P (2014) finds that the relationship between inflation and income inequality resembles a 'U' shape. This means that at low levels of inflation, income inequality is high. Then the income inequality gap begins to reduce as inflation increases. It reaches a minimum point at 13% of inflation. As inflation keeps increasing, then income inequality begins to increase again. The author stresses that this is based on empirical evidence and that there is no theory to explain or back up this empirical fact.

To conclude, we have had six bouts of inflation since World War II. The most serious was during the 1970s. The inflation of the 1970s became pronounced as inflation expectations anchored into the mindset of the American public. To erase inflation expectations from the mindset of the public the Fed engineered a dramatic recession by driving up interest rates. In

early 1981, the Fed drove up the Federal Funds rate to 20% and the interest rate on 10-year treasury bonds increased to 15%.

This current period of inflation is milder. Inflation expectations have not taken hold in the mindset of Americans. In addition, the supply chain bottleneck should ease soon as Covid becomes less pronounced in the US and more American workers get back to work. In addition, although Ukraine and Russia export a larger portion of the world's grain, if the blockade continues then other countries will start exporting more of their own grain onto the world market.

However, there are two conditions under which the 2022 inflation become more long lived:

- 1. The price of oil continues to remain historically high
- 2. The labor shortage in America continues.

i https://www.cnn.com/2022/07/29/economy/worker-wages-inflation/index.html

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