AEI PREMIUM

On Inflation
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It's hard to go anywhere without hearing someone say the word "inflation" or even personally observing what might seem like evidence. Borrowing from a political jab from years ago, you could create a click-bait headline or catchy blog name by simply combining any noun and verb with the word "inflation." It seems to us two things are clear. First, inflation is on everyone's mind. Second, most of the discussions are so vague as to be meaningless. With that in mind, we thought it would be useful to discuss inflation with the hope that we can be clearheaded in our discussions of inflation.

What is Inflation?

Inflation is a broad measure of how prices change within an economy. In the U.S., there are two popular measures: Consumer Price Index (CPI) and the Personal Consumption Expenditure (PCE). The CPI is more recognized and is linked to social security benefits. The lesser-known PCE is what is sometimes referred to as the Federal Reserve's "preferred measure of inflation" or the measure that the Fed uses when stating its long-run inflation goal. Here's a **short piece** by James Bullard, President of the St. Louis Federal Reserve Bank, that discusses both measures: https://www.stlouisfed.org/publications/regional-economist/july-2013/cpi-vs-pce-inflation--choosing-a-standard-measure

In addition to CPI versus PCE, there are two additional slices of the data commonly reported - headline versus core measures. Headline includes everything, while core excludes energy and food. Two paragraphs in, and we've already covered four ways of measuring the same thing so you can see why there's confusion.

Lessons from the 1970s

Talk of inflation immediately summons thoughts of the 1970s and the run of high inflation experienced during that decade. At the extremes, inflation measured by the PCE reached 10.4% in 1974 and 10.7% in 1980. Unfortunately, that's probably where memories and "lessons learned" from inflation during the 1970s end. Most would probably point to the two peaks in inflation as the "problem" of the 1970s.

However, the damage inflicted by inflation during this period is more than just the peaks. The lowest inflation observed during the 1970s was 3.4% in 1972, a level not observed in the U.S. economy since 1990. From 1970 to 1980, inflation averaged 6.4%. If you were to cherry-pick the data, inflation averaged 8.0% for the ten years that spanned 1973-1982. These are very high levels of inflation to sustain for a decade.

The Rule of 72 tells us a compounding interest rate of 7.2% would double values every ten years. This means that an average interest rate of 8.0% for a decade resulted in prices across the economy doubling. In our opinion, it's the decade-worth of strong inflation that created the majority of the problems, not the two years when inflation peaked at 10%.

For a bit of context, here are the average inflation rates for the following decades:

- 1970-1979: 6.4%
- 1980-1989: 5.0%
- 1990-1999: 2.3%
- 2000-2009: 2.1%
- 2010-2019: 1.6%
- 2020: 1.2%

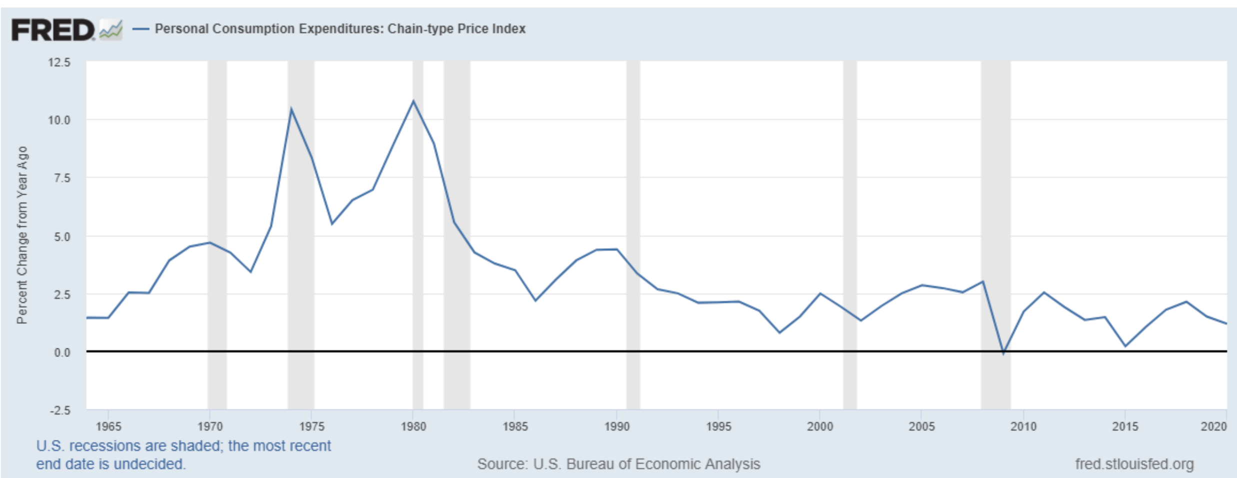

Figure 1. Personal Consumption Expenditures: Price Index 1960-present

Hyperinflation, Stagflation, and Transitory Inflation

While we are talking about inflation, it's worth defining a few associated terms you might hear from time to time. The first is hyperinflation. We've heard this term thrown around in recent months, and it is usually a red flag that the person doesn't know what they are talking about.

Hyperinflation is typically defined as inflation rates of at least 50% per month or 1,000% annually, nowhere in the realm of estimates being discussed.[1] Most of the time, talks of hyperinflation are meant simply to generate clicks and are really referring to double-digit inflation.

Stagflation is a condition where high inflation occurs with high unemployment, stagnant demand, and slow economic growth in the economy. This is similar to the conditions the U.S. experienced, particularly in the late 1970s.

Another term being thrown around in recent months has been "transitory inflation." The idea here is there could be a short-term tick higher of inflation rates as the economy begins to recover. A good example of this comes from airfares or rental cars. In 2020, the capacity of these fleets was greatly reduced as travel plummeted. As activity begins to return, the reduced capacity will be quickly filled, and discounts will be eliminated, and prices could increase. In time, however, more flights and rental cars will be added to the fleet. There are countless examples of this, but the idea is that prices could temporarily be higher as the economy emerges out of the pandemic. Transitory inflation is only worrisome to policymakers to the extent that it causes consumers to adjust their long-term inflation expectations.

The Three Most Important Questions

For 2021, we are using three questions to help filter through the noise and narrative circulated about inflation:

1. How soon?
2. How high?
3. For how long?

The question of "how soon" is important because it seems that most commentary about inflation implies it's already here and will be visible in the data immediately. In our minds, inflation will take time to 1) work its way through the entire economy and 2) be visible in the data. If you were to issue an "inflation watch" like the National Weather Service might for a storm, the timeframe to monitor inflation might not start until summer 2021 and would likely extend well into 2022.

Second, it's important to get specific about the magnitude of inflation being discussed. Vague statements about "higher" are insufficient as the range is wide. While inflation rates of 4% and 10% are both higher than anything observed in recent memory, these are very different conditions. For example, 10% results in price levels doubling in 7 years, versus 18 years at 4%. That is a world of difference.

Finally, the duration of inflation is perhaps the most important. As we noted about the 1970s, a decade stubbornly high inflation – the likes of 7% - will likely cause more problems than a single year of double digits.

Taking these three questions together, it seems many others seem to imply or believe inflation is 1) already here and will be evident very soon 2) are expecting rates in excess of 10%, and 3) have given no thought about the duration.

Thinking Ahead

We've been asked numerous times over the last several months about our expectations on inflation. In addition to all the points laid out thus far, there are a few additional considerations on our minds.

First, it's helpful to consider what Federal Reserve is saying about inflation, and they have been fairly clear about their goals and thoughts. From their March 2021 press release:
"The Committee decided to keep the target range for the federal funds rate at 0 to 1/4 percent and expects it will be appropriate to maintain this target range until labor market conditions have reached levels consistent with the Committee's assessments of maximum employment and inflation has risen to 2 percent and is on track to moderately exceed 2 percent for some time."[2]

In April, inflation hit an annualized rate 3.6%, which followed 2.4% (March), 1.6% (February) and 1.4% (January). At this point, the Fed is not only considered the April data – which is above the target of 2% - but will also be watching future data to confirm conditions are above 2%. This is to say that, given currently available data, the Fed is a long way from being concerned about inflation.

The next consideration is what happens once the Fed moves to curb inflation. In other words, how does inflation respond as monetary policy is tightened? Long before we get to double-digit inflation, we'd need to 1) see inflation exceed and remain above 2%, 2) see the Fed take action (tighten monetary policy), and 3) monitor how inflation adjusts as the Fed raises target rates. In short, before we get to a "runaway inflation" scenario, we can watch for when the Fed takes their foot off the gas and how conditions respond as they apply the brakes. Stated differently, a scenario that would bring us concerns is if the Fed was significantly raising interest rates (>300 basis points) and inflation kept moving higher.

Currently, we are less worried than most about the prospects of a large uptick in inflation in the short-term – 10% reported in 2021 or 2022. However, we are perhaps more concerned about inflation coming in around 3% to 5% and persisting for the next decade. In fact, we believe such an outcome is being largely overlooked. While 3% to 5% inflation does not seem concerning or alarming, this would represent more than double the average inflation observed in the 2000s and 2010s. Such an outcome would have significant effects on the economy and financial markets.

Wrapping it Up

Inflation reminds us of the Goldilocks story. Too much is clearly a bad thing, but too little is also a problem. In many ways, too little economic growth and inflation created their own challenges over the last decade. We do not want to get into a debate about the optimal level of inflation, but we want to acknowledge that many felt <2% was simply not enough. For many reasons, inflation around 2.5% or 3% - higher than anything we've seen in many years - might be a desirable outcome for policymakers looking to tackle deficit spending accumulated during the pandemic. This isn't a political statement, but a political reality.

Perhaps the most compelling illustration of ignoring inflation comes from corn prices and the 1970s.[3] In 1972, corn prices jumped to more than $3 per bushel after a decade of prices around $1.25. They then retreated back around $2 per bushel but would again exceed $3 in 1980 and 1983.

However, due to inflation, these similar nominal prices were much different in real terms. Using 2019 dollars, real corn prices in 1972 were $15 per bushel. By 1980, the $3 nominal corn prices were $9.30 in 2019 dollars, and by 1983 their real value was $8.18. The high nominal prices in 1983 - which were essentially the same as the highs of a decade earlier, had half the purchasing power. Such erosions of purchasing power can have profound effects on the economy.
For most of us, it is important to realize that much of our careers have occurred during periods of low inflation. Regardless of the events of 2020 and 2021, it's probably unlikely our decades-long careers will perpetually face low rates of inflation. As such, from time to time we should consider how our decision-making and perceptions are influenced by low inflationary

conditions. For most of us, inflation has been so low we often ignore it, even across decades of data. For example, not many of us consider the current corn prices to inflation-adjusted prices in 2012 or have considered our inflation-adjusted salary across the last decade. At some point, we may no longer have that luxury.

In conclusion, the three questions we'll be monitoring are: 1) How soon? 2) How high? And 3) for how long?

References

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