

July 15, 2020

Inflation: Should we be Concerned with Increased Debt and Money Supply?

Executive Summary

- With close to \$3 trillion in fiscal stimulus in the US – driving our deficit to 20% of GDP and exacerbating our record 107% debt-to-GDP ratio further to 120-130% – along with the Federal Reserve printing \$3 trillion for additional quantitative easing (QE), many clients have reached out to ask whether we expect to see inflation.
- Inflation, generally measured by the Consumer Price Index, was already at historically low rates in the US prior to the coronavirus; economists are concerned that we may see additional disinflation as a result of virus-related spending patterns that slow the velocity of money.
- To protect investors from inflation risk, Sentinel Trust’s investment team monitors market sectors more vulnerable to inflation swings and has recently made adjustments to some of our investment funds so as to hedge against both inflation and a weaker dollar.
- A 1950s history lesson gives us insight into addressing our deficit and spending issues on a macro level, and returning the US economy to a healthier place without a corresponding rise in inflation.

First, what is inflation? Inflation is defined as a general increase in prices, or a fall in the purchasing power of money. It is when a dollar earned today does not go as far as it went yesterday or last year. Most economists and investors focus on the Consumer Price Index (CPI) as a measurement of price inflation, but there are also other types of inflation, including producer price inflation, wage inflation, commercial rent inflation and asset price inflation.

How is inflation measured? The CPI is measured by the Bureau of Labor Statistics each month. It attempts to estimate what the average urban consumer spends on a typical basket of goods and services, and then measures the change in prices over time. The typical consumer basket includes goods such as food, clothes, utilities, vehicles, alcohol and prescription drugs, and select services such as health care, tuition, wireless communication, gym memberships and airfare. The basket is weighted 14% to food and 6% to energy (gas, oil and utilities), and since prices in these two categories are quite volatile (energy prices fell 19% year-over-year this May), many economists focus on the “core CPI,” which excludes food and energy. The largest component in both the core and overall CPI is shelter (33% of the total).

Where has inflation been historically and where it is now? The CPI has ranged from -3% in 1949 to 15% in 1980. Over the ten years ending in 2019, CPI ranged from -0.2% to 3.8% and averaged 1.75%. The high of 3.8% in 2011 and the low of -0.2% in 2015 were also greatly influenced by the price of oil, which jumped from \$90 to \$113/bbl in early 2011 before collapsing to \$47/bbl in 2015. This again demonstrates why economists, like those at the Federal Reserve, prefer the core CPI which ranged from 0.6% in 2010 to 2.3% in 2012 with an average of 1.8%. These depressed inflation levels, even before the coronavirus, are below the Fed’s target inflation rate of 2% and have surprised many. In the decade heading into 2020, the US sustained deficits of roughly 5%, grew its government debt-to-GDP ratio from 88% to 107%, and allowed the Fed balance sheet to balloon from \$2.3 trillion to \$4.7 trillion. Following the recent coronavirus shock, inflation has slowed further. The latest year-over-year readings for CPI in May came in at +0.2% overall and +1.2% for the core index, well below the Fed’s targets.

This naturally begs the question, what causes inflation? Most economists, including those at the Federal Reserve, generally agree that inflation is caused by an increase in demand (demand pull) or a decrease in supply for some good or service (cost push). Demand is influenced by various factors including the number

of buyers (demographics), the income of those buyers, their habits, preferences, expectations and prices of substitutes. For example, in May, prices for meat rose 10% as Americans stocked up for the lockdown. The cost of supplying a quantity of goods at a given price depends largely on the input costs. The major factors influencing input costs are land, labor, capital and productivity. Part of the jump in recent meat prices was also supply driven, as producers struggled with supply chains due to virus outbreaks.

If we don't want meat prices to jump 10%, why would Jerome Powell and the Federal Reserve try to increase inflation to 2% from here? Don't we like lower prices? The Federal Reserve's dual mandate is to promote maximum employment and stable prices. The Fed believes that a 2% inflation rate will maximize employment while providing stable prices, and is fearful of deflation where prices fall. In deflationary cycles, American consumers, who drive roughly 70% of the economy, are incentivized to delay purchases. In a deflationary environment, investors are also incentivized to hoard cash, which reduces productive investments.

With the US heading toward a deficit of 20% of GDP and government debt load of 120-130% of GDP, won't too much borrowing and debt cause inflation? Generally, too much debt causes disinflation or falling inflation. If a person lives beyond their means today and spends/demands more than they earn, they will generally need to live below their means in the future. Unless debt is used in a productive way to generate income beyond what is owed, it is generally disinflationary. For example, consider a consumer who recently bought a Peloton, taking the company up on its 0% interest financing offer. The consumer chose to pay for the bike with debt, allowing him to spend more today, but the decision will lead him to spend less in the future as he repays the debt. Alternatively, if the consumer had been offered the same 0% financing and used that money instead to invest in a bond paying 5%, he could use that 5% windfall to demand more goods and services in the future. This same logic generally holds for governments. In a study of 45 countries that required a substantial reduction of debt, over half did so through "belt-tightening" (spending less).

The Federal Reserve just grew its balance sheet by ~\$3 trillion and the money supply grew by a similar number; shouldn't this lead to inflation? The amount of money in circulation can lead to inflation if it is circulated, lent and spent. In economic terms, this is called the "velocity of money." When the Federal Reserve prints money and buys securities, it is generally buying on the open market from banks and investors. While it is true that our money supply is up \$2.7 trillion since mid-February, banks are keeping an additional \$1.6 trillion in excess reserves with the Fed, and investors have an extra \$1 trillion in money market accounts. In short, for every buyer there is a seller. The banks have been reluctant to lend their \$1.6 trillion in excess reserves for various reasons: (1) they want reserves for expected virus-related losses, (2) the yield curve is flat and crimping net interest margins (the money earned from borrowing short and lending long), and (3) there is a lack of borrowers – outside of Paycheck Protection Program loans – seeking to take on debt for new projects given the current uncertainty. Similarly, consumers and investors have been reluctant to spend their extra \$1 trillion currently sitting in money market accounts. The US savings rate has jumped to 30% as consumers have been shut in, nervous to fly and eat out, and worried about job losses. Unless this new cash is lent and spent, we should not see a sustained jump broadly in inflation.

Won't printing money cause inflation? In the same multi-country study noted above, 25% of the studied countries reduced their debt through high inflation. However, in almost every one of those examples, the central bank (akin to our Federal Reserve) was not strong and independent, highlighting an important distinction. The Federal Reserve Act states that the Fed has the power to lend but not to spend. This means that when the Fed "prints" a dollar, it always invests in securities that eventually will be retired and usually repaid. The Fed does not have the power to print money to cancel existing debt, an approach that has generally led to inflation and hyperinflation in other examples, such as Germany in the 1920s. Interestingly, this so-called "monetization of debt" is a step that the Bank of England recently took, raising a lot of

eyebrows. A change in the Federal Reserve Act would be required to give spending power to our Fed, and many Americans would view such a change as a dangerous deviation from historical Fed policy.

We should note, however, that the Fed *has* caused asset price inflation. By purchasing bonds, it has reduced the interest rate that investors can attain. By setting short-term rates at zero, it has guaranteed that those investors with \$1 trillion sidelined in money market accounts will earn nothing on a nominal basis and will lose purchasing power after inflation. Since the Fed began its various stimulus programs this year, the earnings yield on 2021 earnings (the inverse of stocks' price-to-earnings ratio) has fallen from 8% to 6%. That rate is still well above the near-zero yield earned on cash. We still may see more demand for equities pushing prices higher and yields lower, but again, for every buyer there is a seller. Unless the seller takes their cash and either spends it or invests it in new capital projects, we will not necessarily see inflation spread elsewhere.

What data indicate a potential rise of inflation? Economists look at a number of factors. Surprisingly, one of the best predictors of near-term inflation is current inflation which, as noted earlier, is currently quite low. We can also look at what the market is predicting for future inflation; that prediction is also very low, perhaps too low. The market currently expects inflation to average about 1.3% over the next ten years.

As discussed earlier, two of the biggest drivers of inflation from the demand side are the number of buyers and their income level. Globally, the number of buyers (demographic growth) has grown anemically. In 2019, before the virus, the US saw its slowest annual population growth in a century at 0.5%. Interestingly, this was the slowest rate since the Spanish flu in 1918, even worse than the Great Depression, and we should expect further declines this year with the death rate up, births down and immigration slowing. Even more surprising, we are one of the fastest growing regions of the large blocks. Europe grew at just 0.2%, Japan's population declined by 0.4%, and China, with a large male-to-female gap, also saw just 0.5% growth. In terms of income, remember that over 20 million workers in the US alone are unemployed. This all spells low inflation, if not deflation, ahead.

On the supply side, there are two key reasons we have historically seen low inflation; however, there are some factors that may lead to a turn in the future trends. First, globalization and the ability to access vast pools of cheaper labor certainly led to low inflation for many goods and services for a long time period. Given the present level of supply chain disruptions and distrust with countries like China, we might very well see this trend continue to fade. Even before the virus, global trade shrank in 2019 for the first time since the Great Financial Crisis as a result of the trade war. The coronavirus and US-China tensions are likely to continue fueling this trend of de-globalization, which likely will be a force pushing prices higher. Second, technology has recently been a major force driving low inflation but with prominent technology firms presently susceptible to long supply chains and regulatory risk, it is also likely that the inflation of technology goods and services may move higher. We will keep an eye on these factors along with others – like the amount of slack in the labor force – as we monitor inflation trends.

What are you doing for investors to protect them against inflation? While we don't see broad-based inflation, there are and will continue to be pockets of inflation and deflation. Emerging from the coronavirus, we may very well see a decrease in demand for urban office and residential space and an increased demand for suburban real estate. Historically, we have minimized our exposure to office real estate investments, and within our real estate fund we have made investments in areas where we do expect inflation, including last mile logistics and suburban multi-family and single-family housing. As the economy heals, we expect some increase in demand for energy coupled with constrained supply, which may produce attractive investments in that area.

Geographically, there are areas of the world like Japan and Europe that have been stuck with very low, if not negative or deflationary, price growth. In Europe, we are seeing encouraging signs that Germany may

seriously increase its deficit from balanced levels. Although we said debt does not typically lead to higher inflation, we noted that it could, if the borrowed money was used to invest in projects that generate income above what is owed. Germany can borrow for free for 30 years and has some badly needed infrastructure work that can generate returns for the economy above what is owed. This move, along with some other developments, may be creating a monumental moment that moves Europe out of a disinflationary trap.

We have also been building up a position in gold within our uncorrelated fund. We see this as a hedge against both inflation and a weaker dollar. Most importantly though, we believe one of the best protections against inflation is owning great businesses with sustainable pricing power that can pass inflation on to customers. Finally, we have maintained and added to our allocation to equities and bonds where we have seen asset price inflation and may continue to see it.

But how does the US government extricate itself from spending 20% more than it earns (deficit-to-GDP), from running up debts 120-130% of its pre-tax total income (GDP) with 20 million people unemployed? How does the Federal Reserve unwind a \$7 trillion balance sheet? Moving the US economy toward greater financial soundness likely won't be easy (especially under current circumstances), but as it turns out, we have a potential historical roadmap to guide our way. In 1950, the United States was coming off a decade of massive deficits, averaging 8.8% of GDP per year. Our country's debt-to-GDP ratio stood at 81%. The Federal Reserve was buying bonds, increasing money supply and engaging in yield curve control. It kept short-term rates close to 1% and long-term Treasury rates at or below 2.5%. The country was in technical deflation with year-over-year prices down 3%, but had just experienced wild price instability with the CPI averaging close to 8% in 1948. Asset price inflation was occurring with the Shiller earnings yield falling from a high of 11% in mid-1949 to 9% heading into 1950. The S&P gained 6% in 1948 and 18% in 1949 despite a recession during the period that led to 8% unemployment. The employment-to-population ratio stood at 55% (a low that would hold until today). And we were entering a cold war.

Over the next ten years from 1950-59, however, the US managed to run an average deficit of just -0.4% of GDP while shrinking its debt-to-GDP from 81% to 18%. The S&P compounded at a 19% return. Inflation did jump to 6% in 1950 and as high as 9% in 1951 as the Korean War heated up. The Fed sought to abandon its yield curve control to tame inflation. This was politically unpopular and President Truman and his Treasury feuded publicly with the Fed. In March 1951, the Treasury-Fed Accord was reached. The Fed agreed to peg five-year notes for a short time, but then would operate independently to "minimize monetization of public debt." It hiked short-term rates (and established an effective funds rate here) from 0.8% to 4% and allowed the ten-year bond to move with market forces to an eventual yield of 4.5% at the end of the 1950s. Inflation, despite the high levels in 1950-51, averaged 2% for the decade.

This was all achieved with no major tax hikes, no spending cuts, no negative (or even nominal) interest rates and without rapid inflation. Surely our manufacturing backbone, left largely unscathed during the war versus the rest of the developed world, contributed to this success, but so did reduced taxes for small businesses, incentives for capital investments and a major investment in national infrastructure. During the decade, our economy grew at 4% per year in real terms. The road ahead may very well be treacherous and we should expect more volatility, but we should aim to improve upon the historical map already in place.

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