

Inflation in 2021 and Beyond

A Practical Look at the Dichotomy of Monetary Value Today

“Hyper-inflation is coming!”

“Debt-default deflation is coming!”

You’ve likely heard some version of both of these statements recently. And as polar opposites, shouldn’t there be a straightforward answer as to which we can expect in the future? While it seems like a cut and dry question, future inflation expectations are more nuanced than many think. So can we expect inflation or deflation in 2021 and beyond?

Our answer is simply “Yes”. We’ll cover why we see a case for both scenarios, and why they might not be mutually exclusive.

Inflation Rate	Years to 50% Loss of Purchasing Power
0%	Never
2%	20.5
5%	8.5
10%	4.25
25%	1.8
50%	1
100%	0.6

But first, let’s look at the nature of inflation. The obsession with the potential extremes of inflation or deflation is understandable. However, even modest yet persistent inflation creates distortions, winners, and losers. Inflation is a very regressive tax on everyone’s take home pay. Inflation taxes the returns of savers and fixed income investors by diminishing the value of future income. Borrowers enjoy the advantage of repaying debts with cheaper money. Deflation has the opposite affect, making savers richer and borrowers poorer.

Inflation – An Imperfect Definition

Inflation is most commonly measured by the consumer price index. This is often sliced, diced, trimmed, and adjusted, but the CPI remains the standard.

One of the more significant criticisms of the CPI is the hedonic adjustment process. This process discounts cost increases over time by observed product improvements. New car prices are a prime example. Since 1990, the cost of a base model Ford F-150 has increased by 170%, the standard Toyota Camry by 70%. Yet, the new car cost input in the CPI has increased by only 21%. The new electronics, touch screens, safety equipment, cameras, and 8 speed transmissions are deemed to be worth the higher prices...you get more for your money. For the laborer who needs a truck to earn a living or the nurse that needs to get to the hospital every day, the improvements may not be required or desirable. Yet they must pay the higher price regardless. Whether or not we are all hedonists is a separate philosophical question. We will simply state that the CPI likely understates the average person’s real-world cost of living experience.

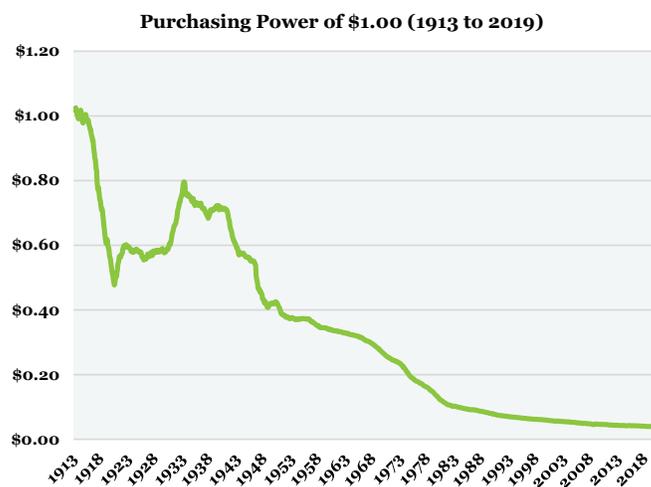
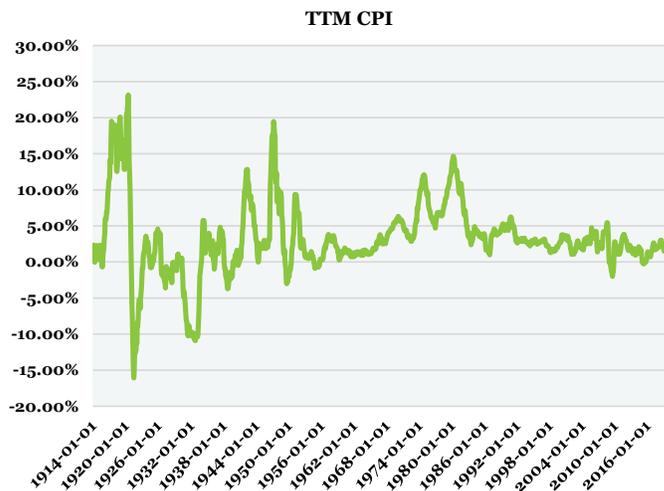
Sticking with the headline CPI and accepting its flaws, the data series starts in 1940. Thankfully, the Federal Reserve also publishes a “purchasing power” series that starts in 1913. The overlapping data matches the CPI index, so we have used the purchasing power index to build the CPI back to 1913 resulting in 107 years of data. (1913 also happens to be the year the Federal Reserve was created).

These charts show the purchasing power index and the 12-month rate of change of the CPI.

Deflation in the 1930’s is obvious in the rising purchasing power and negative CPI rates. The first 70 years of the CPI chart appears to represent higher inflation, but the average annual rate of 3.1% is not much different from the last 40-year annual rate of 2.9%.

What Causes Inflation

The late, great Milton Friedman once famously quipped, “Inflation is always and everywhere a monetary phenomenon.” The father of the monetary theory of money, Friedman believed that more dollars chasing the same number of goods will eventually result in price inflation.



$$MV=PQ$$

(M)oney x (V)elocity = (P)rice x (Q)uantity

In most historical cases of hyperinflation, the roots can be traced back to an increase in the money supply. In our current global economy, there have been unprecedented increases in money supply by central banks across the world. However, we have not seen significant inflationary pressures - yet. Why not? Was Uncle Milt just flat out wrong? There are several possible explanations, both within the Nobel Laureate’s model and outside of it. First, as central banks worldwide increased M since the Great Recession of 2008, V fell off dramatically and savings have increased. Additionally, it has been argued that the quantity of goods available (Q) has risen with the proliferation of global trade.

Outside of the model, we have always believed that there are other inflationary (or deflationary) forces besides just monetary policy. Technological innovation or increases in efficiency, economic growth, demographic changes...these are all variables that affect the components of the equation. That is to say we do not necessarily believe that inflation is “always and everywhere” a monetary phenomenon. Nor is deflation (as evidenced by Japan).

David Fischer, in his book "The Great Wave" (1996) examines anecdotal price history starting in 1850 B.C. Having better evidence from the last 800 years, he identifies four waves of price "revolution" or periods inflation and the proximate causes for each. Each wave ran for decades and each was followed by decades of price stability. The proximate cause of inflation in each period is identified as one or a combination of increased money supply, population growth, climate change (yes, even back in 1315), and social structure. Perhaps his most interesting conclusions were the commonalities within each wave. Inflation started slow then accelerated, returns to labor declined, and the wealth gap increased. The end of each wave was punctuated by a sharp deflation followed by a period of stability in not only prices, but social structures. The periods of stability saw reduced crime rates, drug usage, and declining wealth inequality. Traditional family structures grew stronger. He concluded in 1996 that we were in the later stages of great wave four, but left little insight into our future. He did speculate that future trends (dating from 1996) would be less dramatic than the first three great waves and would be more heavily influenced by contemporary decisions.

The Fed's New Objective in Perspective

In September, the Federal Reserve formalized its objective to create 2% inflation over the "business cycle" and by-golly, they might need to accept higher near-term inflation to make up for recent periods when they failed in their efforts. Why would the Fed want inflation to rise? The reasons are well documented:

The Federal Reserve's toolbox is asymmetrical—stimulus is less effective than the negative impact of monetary tightening.

- Asset prices go up, boosting consumer confidence and consumption.
- According to an economic principle called the Phillips curve, higher inflation in the short-run leads to higher wages and lower unemployment. It is important to note, however, that this relationship fails in the long run.
- The Fed (and other central banks) could want inflation because a weaker currency makes our exports more attractive.
- A more nefarious reason could be that the Fed is complicit with the government in an attempt to monetize the debt, allowing debts to be repaid with dollars that are worth less.

Ineffective Monetary Tools and the Debt Trap

The United States and several other developed economies are caught in a debt trap. The Bank for International Settlements defines a debt trap as a condition when increasing debt weakens economic growth, which then evokes a policy response of more debt issuance to support stimulus spending. We can see the results unfold by looking at GDP growth relative to debt creation. It has slowed over the last 40 years and markedly over the last 15. We no longer see a bang from a buck of debt creation. "Traditional" monetary tools also have diminished influence as the size of the problems increase. Over the last 12 years, the Federal Funds rate has averaged 0.56%. Inflation and real GDP growth have averaged 1.5% and 1.6%. The Fed has employed traditional and non-traditional tools in its attempt to boost measured inflation above 2%, but has failed. The Federal Reserve toolbox is asymmetrical - stimulus is less effective than the negative impact of monetary tightening. Central bankers in developed countries have been fighting this battle for 12 years with more of the same ineffective tools, resulting in over \$17 Trillion of sovereign debt trading at a negative yield.

Hyper or Default?

We do expect that the extremely high money supply growth will be inflationary. When it shows up in consumer prices will depend on consumer confidence and growth expectations. With spending patterns muted by demographic trends, much of the recent liquidity creation has found a home in savings accounts thus slowing velocity. The liquidity has also landed in the securities markets, pushing valuations in stocks and bonds to extremes. The low interest rate policies of the last 12 years have sown the seeds for debt-deflation. Low rates have kept many zombie firms alive and pushed yield-seeking investors into lower quality debt. Highly-leveraged firms will increasingly go bankrupt in periods of economic weakness. The natural cycle of bankruptcy accelerates and debt is eliminated from the debtor's balance sheet. Most important during this process, the investors' assets simply vanish and they become both participants in and victims of a debt-default deflation. As securities disappear, a pension plan or retiree that now owns fewer income-producing assets will need to cut their spending.

Forecasts and Volatility

Current demographic and economic trends will continue to dampen the risk of rapidly increasing inflation. This risk would rise if governments took increasing steps to publicly fund defaulting private sector debts, thus eliminating the deflationary impact. Current monetary policy and the propensity to provide sustenance to zombie firms through low interest rates delays, but does not reduce, the risk of debt-default deflation.

Predictions become very precarious when so much hinges on government policy. Bailing out everyone and everything sets the stage for hyper-inflation, but a sudden and strict return to prudent fiscal policies and normalized monetary policies would likely trigger a debt-default deflationary spiral. Since we seldom see "overnight" changes in government policies, we are unlikely to see either extreme in the immediate future.

Ignoring the potential impact of extreme government policy inputs, there is clearly a recipe for accelerating inflation. Broad-based producer price indices have risen over the last year. Lumber and wood products by 26.5%, grains 10.9%, metals 11.1%. These increases in input prices eventually filter down into finished products. Year-over-year growth of the M2 money supply is a record high 24% (four times the average growth rate of the last 40 years). The inflation cake is baked to perfection.

However, we believe higher near-term inflation will eventually succumb to the pressure of longer-term deflationary forces. The record high mountain of sovereign and corporate debt can suck the air out of the fire and lead to a debt-default deflation.

The real risk is that volatility and uncertainty in the future inflation rate has increased. This is a nice way to say extreme outcomes are more likely. Today, the 30-year Treasury Bond yields 1.60%, suggesting investors are looking past any potential for near term inflation and focusing on a deflationary future.

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