

Inflation: What Should Investors Expect?

JULY 2020

Current economic data show strong deflationary patterns, and interest rates are priced for a continuation of this trend. With central banks expanding their balance sheets at historically unprecedented rates in response to COVID-19 and its impact, imparting what would normally be a significant inflationary force, investors are struggling to assess expectations as to inflation. In this piece, we briefly cover:

- **History & mechanics of inflation**
- **Impact on inflation of the COVID-19 pandemic**
- **Current market assumptions as to inflation**
- **Portfolio implications of the inflation outlook**

Why are interest rates priced for deflation when central banks are expanding their balance sheets more than ever before? The unstated concern in this question is inflation, something very few younger generation investors have faced in any meaningful way. It was back in the 1970s and '80s when inflation last raged as a portfolio value-destroying scourge, and it has almost disappeared since the 2008 financial crisis.

At the opposite end of the spectrum lurks a scenario that has become even more worrisome to policy makers in recent years – deflation. Our financial system is built on the assumption of at least modest levels of inflation in that deflation (a decline in the general price level of goods and services) threatens the ability of the multiple layers of debt on which our system is built to be repaid.

We are now immersed in a contest with a new scourge – COVID-19 – which has severely depressed multiple areas of economic activity. How long will the virus last? What will the economic recovery look like? Governments and central banks around the world have responded to the economic impact of the virus and the attendant uncertainties with massive fiscal and monetary stimulus. Under anything like normal conditions, injection of these amounts of money would generate inflation before long.

However, current measures for the Consumer Price Index (CPI), bonds, oil, and commodities all show disinflationary (a slowing rate of inflation) or frank deflationary patterns. We explore below the factors shaping the current outlook for inflation and what investors should expect as to its reemergence.

HISTORY & MECHANICS OF INFLATION

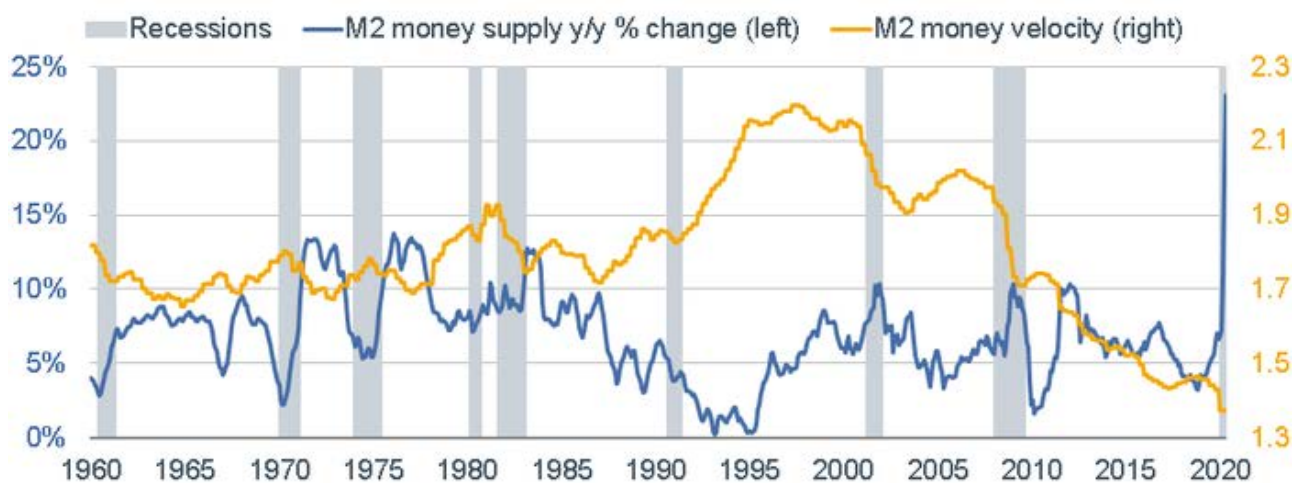
Inflation is a measure of the rate at which the average price level of a selected basket of goods and services in an economy increases over a period of time. Often expressed as a percentage,

inflation indicates a decrease in the purchasing power of a nation's currency. The inverse of inflation is deflation, which occurs when prices decline.

Inflation rates vary over time and among countries and currencies. In past periods, economies with currencies based on silver or gold standards rarely experienced inflation exceeding two percent per year, with rates over time running close to zero. Almost all nations today have "fiat currencies" which, until the 2008 Great Financial Crisis ("GFC"), generally had more inflation than when countries used gold/silver standards.

Central banks in most countries strive to keep inflation low, but positive – usually in the 1-3% range. Since 1950, U.S. inflation, as measured by the annual change in the U.S. CPI, has ranged from -0.7 percent (1954) to +13.3 percent (1979). Since 1991, the range has been narrower (+1.6 percent to +3.3 percent). During this period, some less developed countries have experienced episodes of hyperinflation with rates exceeding 50 percent per month, while Japan has experienced negative inflation ("deflation") of around one percent per year.

What causes inflation? While all inflationary episodes exhibit rising prices, their causes can vary. "Demand-pull" inflation occurs when the overall demand for goods and services grows more rapidly than production capacity, resulting in higher prices. An increase in the money supply is often a component of such situations, but it is not a sufficient condition for inflation because overall demand is a function of not only money supply, but the propensity of businesses and consumers to spend (often referred to as the "velocity" of money). At present, we are witnessing deflationary pressures despite an unprecedented expansion in the money supply because money velocity has collapsed (see chart).



Source: Charles Schwab, Bloomberg, Federal Reserve Bank of St. Louis. Data as of May 31, 2020

"Cost-push" inflation results from increases in the prices of production process inputs. If manufacturers redo workflows for social distancing and it lowers productivity, or they face higher costs due to de-globalization, these impart "cost-push" inflation.

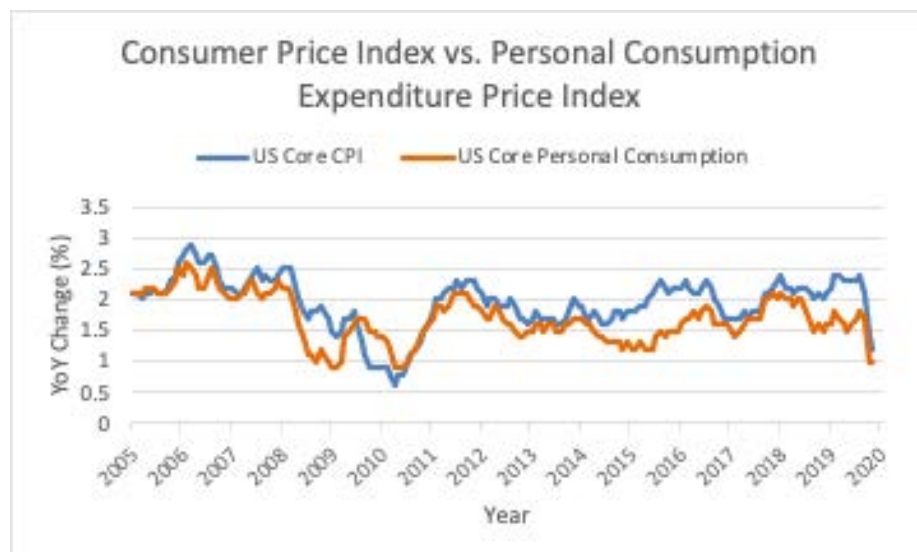
Inflation can also stem from the expectations of consumers and businesses (sometimes called “built-in” inflation). As prices rise, labor expects and demands higher wages to keep up with the expected increase in the cost of living.

How central banks manage inflation. Central banks throughout the world use monetary policy to avoid both inflation and deflation. The U.S. Federal Reserve has a dual mandate to foster both price stability and “maximal sustainable employment.” In recent years the Fed has targeted a 2% rate for “core” inflation which excludes volatile energy and food prices. However, inflation has remained stubbornly below the Fed’s 2% target.

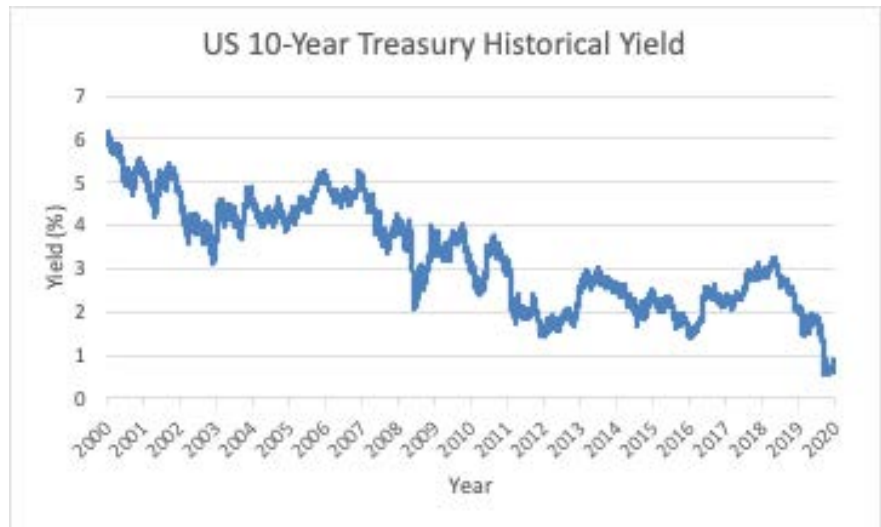
The Fed controls its short-term, fed funds rate via its “open market operations.” Following the 2008 GFC, the Fed kept the fed funds rate near zero. Longer-term rates have historically been determined largely by financial markets. However, with the extreme conditions created by the GFC, the Fed and other central banks employed “unconventional” measures to bring down longer rates. Chief among these measures has been asset-buying programs called Quantitative Easing (“QE”). Some critics expected that QE would spike inflation, but inflation peaked in 2007 and trended lower thereafter as QE’s inflationary effects struggled to match the deflationary forces of the GFC and its recession.

COVID-19 & INFLATION

Leaving aside for the moment the effects of the fiscal and monetary policy responses, the immediate impact of the pandemic and the associated lockdown measures has been unambiguously deflationary. The Core CPI has plummeted to its lowest level since 2010 – 1.22% in May – and the Core PCE (Personal Consumption Expenditures) the Fed’s preferred inflation measure targeted for 2%) came in at 1.02% (see chart). Commodity indices are at their lowest levels in more than a decade, and oil also plunged to its lowest level since 2003 before rebounding somewhat on OPEC’s renewed discipline. The pandemic has also accelerated the shift to a more digital economy which is net deflationary.



The proximate cause of the fall in inflation has been a collapse in demand. While government income support programs and the reopening of portions of the economy have helped demand recover, spending remains depressed, especially among higher-income households who account for a widely disproportionate amount of overall spending.



Longer-term interest rates have also declined to generational lows, due to central bank asset buying, a global savings glut relative to demand, and expectations for a multi-year period of economic weakness (see chart).

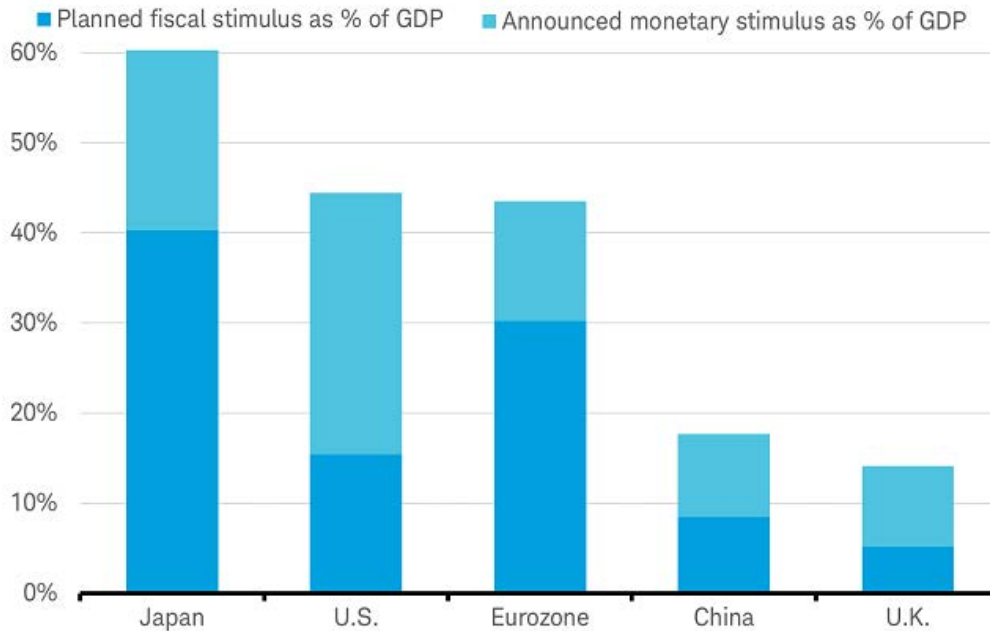
Looking ahead however, inflationary effects of the pandemic come into view. The trend toward de-globalization, i.e., reducing the use of lower-cost offshore supply chains and raising production costs, will almost certainly grow. Among the lessons from the history of past pandemics is that labor gains power at the expense of capital. Research by the San Francisco Federal Reserve examined how real wages were impacted by a dozen epidemics in Europe (which has the best continuous data) from the Black Death to the 2009 H1N1 flu. Relative to what would have been expected absent the pandemics, real wages were boosted for almost 40 years.

Elements of this pattern could repeat. U.S. and European governments are now subsidizing wages and paying workers not to work. Workers who had previously accepted poor pay and conditions are becoming assertive. Employees of Amazon, long targeted by worker complaints, protested working conditions resulting in Amazon spending \$4 billion on virus-related changes. At the same time, the pandemic has also raised unemployment, increasing the supply of labor.

The pandemic has already led to greater demands on government, a trend that was building pre-pandemic. The political right is alarmed that the coronavirus is fostering the appeal of leftist political viewpoints. To the extent that a desire for government to take a larger role in various areas of society grows, this would ultimately prove inflationary.

Will current monetary & fiscal policy responses to the pandemic generate inflation? Of all the unprecedented events of this year, one of the most unprecedented was the scale of the fiscal and monetary policy measures enacted in response to the pandemic's economic impact (see chart). Relative to GDP, U.S. stimulus actions have been more than three times those of 2008-2009.

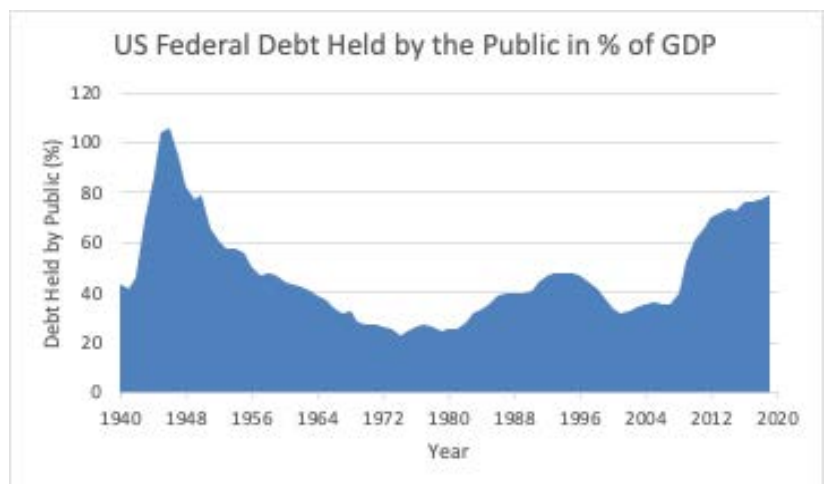
Global Stimulus Relative to GDP



The aggressive policy actions to provide liquidity to capital markets and income support to businesses and workers have succeeded thus far in pulling markets and the economy out of their nose dives. Whatever the longer-term inflation risks, the Fed decided to fully accept those risks. Volker's playbook in the 1980s showed how to effectively combat inflation, but reversing deflation is much more difficult as Japan's experience has shown.

The policy responses to the pandemic accelerated policy trends that were already at work. For the first time since WWII, the U.S. budget deficit under Trump expanded for three straight years while unemployment was declining. Pre-pandemic, the old order of relative fiscal prudence and *laissez-faire* economics was already giving way to a new regime of unbounded fiscal stimulus and economic populism. This new order, which is likely to persist irrespective of November's election outcome, has clear longer-term inflationary implications.

Given the huge buildup of debt (U.S. debt will soon exceed its prior high set after World War II as shown in chart), government will have an incentive to foster inflation. However, managing the debt will also require that interest rates are kept low.



What happens if the economy falters under a “second wave”? With major income support provisions of the COVID-19 fiscal rescue package expiring at the end of July, and multiple states now backing off their re-openings, it is highly likely a further fiscal rescue package will be needed. While Dems and GOP legislators will disagree as to any bill’s contents, a compromise will almost certainly be reached.

As to the Fed, some observers suggest that they are pretty much out of tools to support markets and the economy. With rates already at record lows across the curve, QE may not be very effective in boosting growth, and Chair Powell has essentially taken negative rates off the table due to their undesired side effects. However, if the economy weakens further, the Fed is likely to expand the use of its broad, fiscal-like authority to funnel support to targeted areas. There are limits on this authority, but the Fed managed to get around those in its various programs initiated in March-April.

The Fed is now buying corporate bonds and bond ETFs. With other central banks already buying equities, the prospect of the Fed doing likewise given sufficient duress is not out of the question. Is the Fed’s purchase of lower quality assets inflationary? Probably no more so than expansion of its balance sheet with higher-quality assets ... until the Fed might need to redeem those assets at a time when they show a loss. In that event, confidence in the Fed could become at issue. This is probably nothing investors need to worry about in any near-term timeframe, but ultimately this confidence is an essential underpinning of our financial universe.

Will the recovery be led by the demand or supply side of the economy? As the authors of a recent Barron’s article¹ point out, this question will be critical to government policy, investment strategy, and the inflation trend. If demand recovers more quickly than the disruptions to supply, cost-push inflation could take the upper hand. However, if, as the authors note, *“lingering fears of contagion, depleted savings, uncertainty about household incomes, high private debt burdens, and government debt that raises the specter of higher future taxes dampen consumption and investment,”* deflationary trends could prevail.

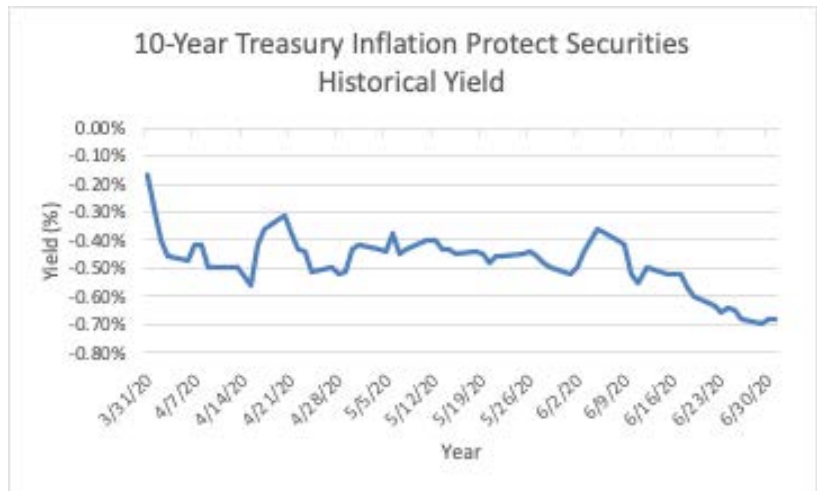
CURRENT MARKET ASSUMPTIONS AS TO INFLATION

Despite significant longer-term inflationary forces, weak aggregate demand and excess global supply in many industries mean that U.S. inflation is unlikely to increase before 2022 by more than a return to its longer-term, sub-2% trend. As evidence for this, prices of bonds – the assets most vulnerable to inflation – have surged, and “breakeven” rates which reflect market inflation expectations sit well below central bank targets across all developed markets.

The 10-year real (net of inflation) yield shown by Treasury Inflation Protected Securities (TIPS) just dropped to a new low for the year (see chart). At negative 0.70%, this rate, which can also be expressed as the nominal yield less the breakeven rate of inflation, is the lowest since 2013. Breakeven rates in Europe say that inflation there won’t reach the European Central Bank’s target of just under 2% for 30 years!

¹“This is No Textbook Recession,” Lipschitz L and Schadler S, Barron’s, May 21, 2020.

If or when inflation does perk up, the Fed is likely to be restrained in raising rates for reasons that include the fragility of the economy and strong deflationary secular trends. Before making aggressive rate hikes, the Fed would be more likely to employ measures such as “yield curve control.” This policy, first used by the Federal Reserve on the Treasury Department’s orders in the late stages and aftermath of



WWII, entails targeting a longer-term interest rate and pledging to buy enough long-term bonds to keep the rate from rising above the target. The Bank of Japan is currently using a similar strategy. In support of the above, for the last several months nominal yields on 30-year Treasuries have been stable, while market-embedded inflation expectations have been rising. This downward pressure on real yields indicates that markets are beginning to assume that yield curve control is coming and that nominal yields won't be allowed to rise.

The U.S. dollar and inflation. The U.S. dollar’s direction will be critical in determining whether any durable acceleration in inflation occurs. U.S. inflation rises during U.S. dollar bear markets because imports become more costly and because a depreciating dollar stimulates global growth as most trade is conducted in U.S. dollars. The odds of a U.S. dollar bear market are rising for reasons that include low real U.S. rates and the policy imperative to keep longer rates low for a long time. The fact that U.S. success in controlling the virus is lagging behind that of Europe and Asia is also dollar bearish.

Sector Returns During Past Inflationary Periods		
S&P 500 Sector	Average Return*	Median Return*
Health Care	30.8%	15.2%
Energy	29.1%	17.6%
Real Estate	14.1%	6.4%
Materials	6.2%	6.1%
Consumer Discretionary	5.2%	-3.0%
Financials	3.5%	-2.4%
Industrials	3.2%	1.2%
Consumer Staples	1.6%	1.7%
Information Technology	-5.8%	-8.2%
Utilities	-6.8%	-8.4%
Telecom Services	-12.4%	-4.4%

*Return are relative to the S&P 500 and not weighted

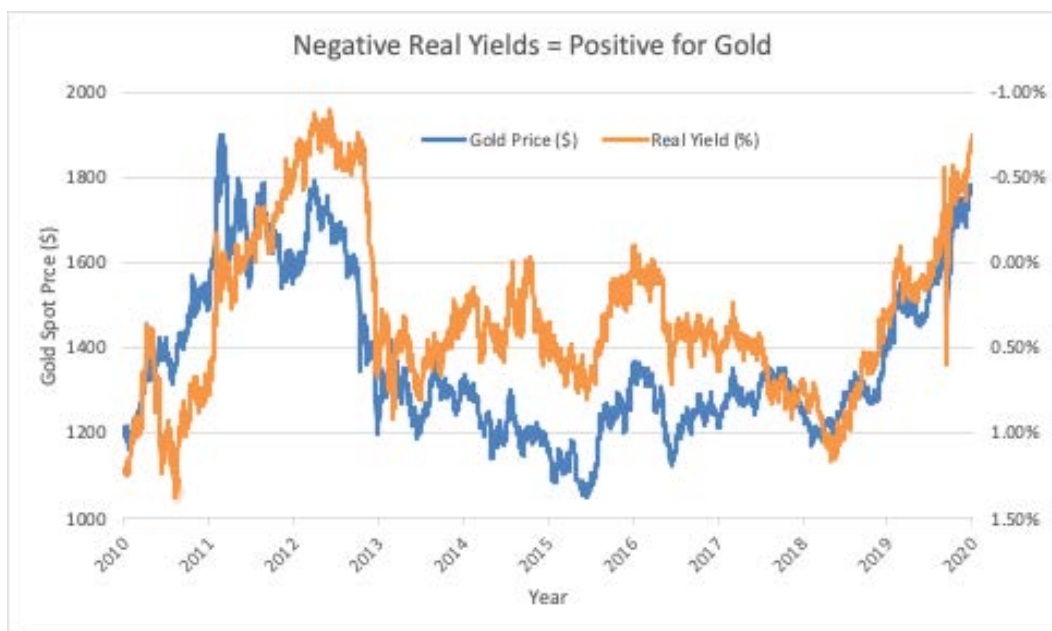
INFLATION IMPACT ON PORTFOLIOS

While we don't see a significant near-term inflation threat, when investment risks emerge, the impacts tend to evolve much faster than could be expected. No better example of this is needed than the equity plunge of this March. Hence, our inclination is that it makes sense for investors to consider now how well positioned their portfolio might be for an eventual rise in inflation.

Equities. While strong inflation (near 4% or above) is bad for most equities, modest inflation (2-3%) is usually positive for equities as companies can generally build rising costs into the price of their products, and the negative impact of inflation on bonds tilts asset allocation towards equities.

The winners and losers among equity sectors have varied with past inflationary periods (see chart courtesy of BCA Research). However, with the timing of any uptrend in inflation uncertain, and other drivers of sector performance prominent, for now maintaining sector diversification makes more sense than favoring the winners in past cycles.

Gold. While investors buy gold for a variety of reasons, one of the best predictors of gold's price is the real (net of inflation) yield. Negative real yields are bullish for gold as evidenced by the 50% rise in gold over the last 24 months as shown in the chart below in which the gold line and right hand scale shows the real yield inverted. You don't have to be a "gold bug" to consider some gold or gold stocks for a portfolio in this market.



Fixed income. Fixed income assets are very directly linked to inflation. Today, short-term rates have minimal yield, but long term bonds are highly susceptible to a decline in value if/when inflation and rates rise. Consequently, investors that want to hedge their fixed income portfolio against divergent paths for inflation are advised to blend fund holdings with varying duration or to employ a bond portfolio with laddered maturities.

Another very direct way for fixed income investors to hedge inflation risk is via Treasury Inflation Protected Securities (TIPS) whose yield adjusts with changes in inflation. TIPS have performed poorly in recent years which is one reason why they are currently pretty inexpensive.

Tangible assets like real estate and commodities generally benefit as inflation rises. However, these asset classes each have their specific investment drivers which can outweigh the impact of inflation.

SUMMARY

A brief summary of the inflation cross-currents described here would be that near-term, deflationary forces in the U.S. have the upper hand, but intermediate- to longer-term, current fiscal and monetary policies will prove inflationary.

While acknowledging that timing is everything, we won't hazard a guess as to when "near-term" evolves to "intermediate/longer-term" given the uncertainties around the virus and all the usual economic and geopolitical factors. However, we are confident that interest rates will remain very low for a long time, even extending past when inflation begins to perk up. It is this widely shared conviction that is now supporting the prices of both stocks and government bonds.

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