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Inflation in the U.S. Economy:

Risks & Recommendations

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INFLATION IN THE U.S. ECONOMY:
Risks & Recommendations

> The arithmetic makes it plain that inflation is a far more devastating tax than anything that has been enacted by our legislatures.
>
> – Warren Buffett, "How Inflation Swindles the Equity Investor," *Fortune*, 1977

> The kind of troubling inflation people like me grew up with seems unlikely in the domestic and global context we've been in for some time.
>
> – Fed Chair Jerome Powell, 2021

Inflationary forces may be rising in the U.S. economy, with the risk of overheating and inflation not seen in decades. We have been reducing our exposure to longer-dated bonds, increasing our exposure to real estate and infrastructure assets, and taking gains in higher-growth stocks, which have benefited disproportionately from the low rate environment. However, structural deflationary pressures remain in today's economy, and we aren't yet concerned that inflation will reach the disruptive levels experienced in periods like the 1970s.

Inflation Scare

With historic monetary and fiscal stimulus arriving as vaccine deliveries ramp up, inflationary pressures are mounting. Anyone buying or building a newly constructed house in the U.S. may have noticed that lumber prices have more than doubled from their pre-pandemic highs. The cost of a cup of coffee and a cheeseburger are rising too. This is most notable in the U.S., which has had some of the most aggressive fiscal and monetary stimulus and a speedy vaccine rollout. U.S. GDP growth is expected to reach 6% this year according to Bloomberg, the best result since 1984, at a time when many supply chains are scrambling to ramp production and inventories back up to meet surging demand.

This rate of economic growth tends to be associated with strong inflationary forces, and inflation expectations are at their highest levels since before the 2008 financial crisis. The last time GDP growth was this strong, in 1984, the U.S. 10-year Treasury bond offered a yield above 10%. It marked the end of a period of runaway inflation, which was only stomped out by aggressive rate hikes from former Fed Chair Paul Volcker, leading to two painful recessions. It was during that challenging period that Warren Buffett noted the devastating impacts of such high levels of inflation on equity investors.

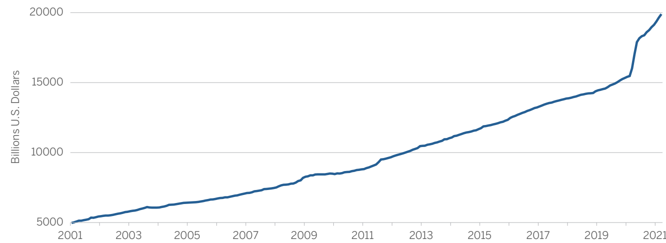
Following the recent $1.9 trillion U.S. stimulus package passed in March, the White House is preparing another $2 trillion to $3 trillion infrastructure spending proposal, which could lead to cumulative government spending of four times what we saw during the financial crisis of 2008. Monetary policy is also highly stimulative. Short-term interest rates are still pegged at zero, and the Fed has doubled down on its promise for lower rates.

This is a rare combination of fiscal and monetary stimulus during a time of economic growth. It has led inflation expectations to rise from just 0.5% a year ago to 2.5% today, the highest level since before the financial crisis.

But while price increases in commodities like lumber and coffee are making headlines, one must look across all goods and services and beyond just the U.S. to get the full picture of inflation. There is great disparity in the availability of vaccines around the world, and the global economic recovery is expected to be uneven as a result. Outside the U.S. and U.K., growth and inflation expectations remain fairly muted in developed economies and even many emerging markets. It is also important to understand the temporary supply chain disruptions due to the pandemic and the long-term trends in technology, consumer preferences, population growth and global trade that will likely impact future rates of inflation.

Money Chasing Goods?

Historic monetary and fiscal response to the COVID-19 pandemic has led to a surge in the money supply, shown here as M2. As the economy regains momentum, this could ignite inflation.



As of 3/31/21. Source: Bloomberg. M2 is a measure of the money supply that includes cash, checking deposits and easily convertible items to money.

Being Prepared

We expect inflation to rise and at least temporarily exceed the 2% level in the U.S. and have made shifts to client portfolios in recent months to protect portfolios.

For example, we have shortened duration in our fixed income portfolios, shifted capital from growth to value strategies, increased our exposure to infrastructure and real estate assets, and are considering some commodity strategies for portfolios. We are also prioritizing quality and pricing power in our equity investments.

We do not yet see signs that inflation will return to the concerning levels of the 1970s due to a number of longer-term downward pressures on inflation that we expect will persist, as well as the continued slack in the U.S. labor market, recovery of supply chains and slower growth outside the U.S. Nor do we believe the Federal Reserve lacks the credibility or power to combat rising inflation with higher rates.

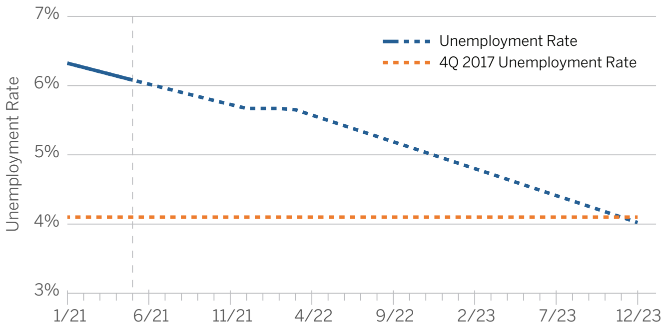
It is also important to note that inflation is not always a negative for stocks, as typically only when it reaches 4–5% or higher does it lead to poor market performance, and a sustained 4–5% rate of inflation is a long ways off. Growth is often accompanied by inflation, and so long as it is contained, we believe that stocks can perform well.

That said, the current environment is unique in modern history and is creating meaningful risks of rising prices over the next 12–18 months. Inflation is a function of both policy and human behavior, and the former is changing while the latter is inherently uncertain. We will be monitoring inflation closely, and if we believe it has a meaningful chance of sustaining levels above 4%, we are likely to reduce our equity exposures as a result and look to shift more toward assets that benefit directly from inflation.

We detail a "balance sheet" of inflationary assets and liabilities, both structural and cyclical, below, which inform our views.

Back to Work

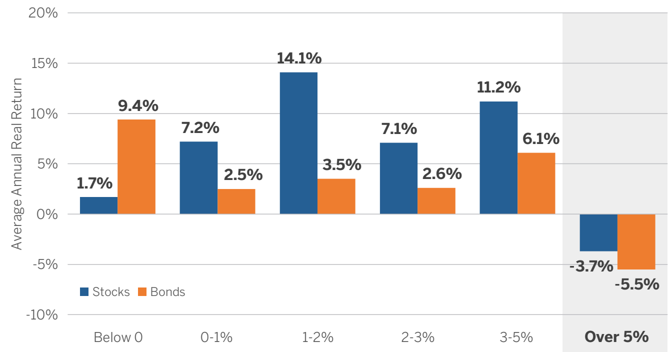
Inflation will likely need a tight labor market to take off, and that may still take considerable time to mend.



From 1/1/21 to 12/31/23 (Projected). Source: Bureau of Labor Statistics and Brown Advisory analysis.

How Hot Is Too Hot? Returns over Last 100 Years

Stocks and bonds have historically performed well as long as inflation remained below 5%. Inflation below zero also poses risks to stock returns.



As of 3/31/21. Source: Bloomberg

Goldilocks

Why do investors, companies and consumers care so much about the rate of inflation?

Inflation (or deflation) is the rate of increase (or decrease) in the prices of goods and services we use and consume. If prices rise too quickly, it can cause a perpetual cycle of rising wages and prices as consumers and companies alike rush to purchase goods today for fear of higher prices tomorrow. High inflation penalizes savers, quickly renders projected revenues and costs obsolete, complicates inventory management, and curtails company investment. High inflation must be contained with meaningfully higher interest rates that often lead to a recession.

When prices persistently fall in a deflationary environment, on the other hand, it can cause consumers to hoard their savings and postpone their purchases in the hopes of lower prices tomorrow. This can lead to a deflationary mindset where consumers perpetually postpone consumption in the hopes of lower prices, stifling growth. Policymakers are constantly searching for stability in prices. This so-called Goldilocks environment, where the inflation environment is neither too hot nor too cold, has been determined to be about 2% by many economists and has historically been the backdrop for the strongest equity returns.

What Causes Inflation?

Inflation generally falls into two categories: demand-pull and cost-push. Demand-pull results from an excess of money in the system chasing the same amount of goods and services, and cost-push results from a shortage in the supply of goods and services.

	Demand Pull	Cost Push
Definition	Demand increased faster than supply of assets	Input costs rise despite constant demand
Common Causes	Increased money supply	Rising wages, commodity/input prices or trade disruptions
Historical Examples	1990s–present Argentina (30%/year money growth, currency depreciation + USD debt)	1970s U.S. (oil price spike, unionized wage pressure)

Most of the extreme cases of inflation, such as those seen in Venezuela, Argentina or Zimbabwe, have been the result of demand-pull inflation—predominantly governments printing money at alarming rates to cover their ballooning debts. We generally avoid investing in countries with these kinds of precarious fiscal situations.

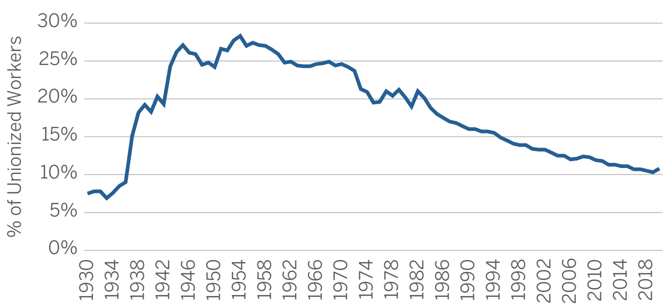
More recent and relevant cases in the U.S. include the period between 2002 and 2006. Highly accommodative monetary policy in response to the bursting technology bubble combined with fast-growing demand from emerging markets created rising prices for inputs and assets.

High rates of inflation in the U.S. and elsewhere in the 1970s were more a product of cost-push inflation, notably the 300% rise in the cost of a barrel of oil after OPEC cut off oil exports to the U.S. in retaliation for the emergency aid the U.S. provided Israel during the Yom Kippur War.

The 1970s were also a period where U.S. wage growth averaged more than 10% a year, due in part to the relatively high level of unionization in the U.S. workforce at the time, which had contractual increases of wages based on the Consumer Price Index. This dynamic, which was also seen in the U.K. and elsewhere, has receded in recent years as the economy has shifted from manufacturing to services.

State of the Unions

Collective bargaining had been a key factor in rising wages and inflationary pressures. However, union participation has been declining for decades.



From 1930 to 2020. Source: Bureau of Labor Statistics

How Is Inflation Measured?

Measuring inflation can be straightforward for certain goods, like commodities, where the change in price for a bushel of corn or an ounce of silver can be quickly determined, but complex for technological products with changing functionality. For example, the Apple II computer released in the mid-1970s cost $1,300, which is similar to the price of a MacBook Pro today. However, today's product is more powerful than a supercomputer in the '70s, and determining the amount of deflation this represents is difficult. The state-of-the-art Seymour Cray-1 supercomputer released in 1977 cost $7.9 million, but your smartphone today has more computing power.

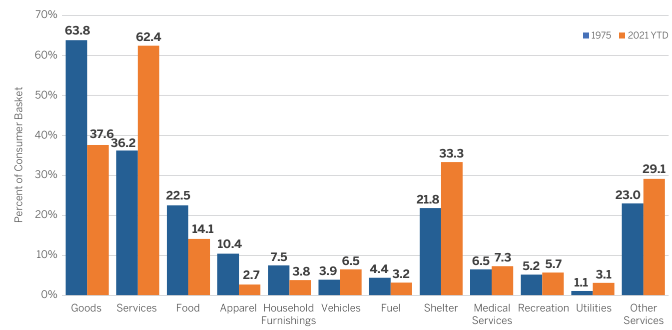
The economy's makeup has also changed dramatically over time. Electronic goods and services, which have seen both increasing power and decreasing prices, amount for much larger shares of consumer spending, and this further complicates any aggregate measure of inflation.

However, both methodologies agree when it comes to big-picture items. The economy has become far more services-oriented and far less commodity-oriented in recent decades, and inflation has been exceptionally low and stable over the past 25 years.

Areas where prices have been rising rapidly, such as education and medical care, have been offset by segments like software, TVs and electronics, which have seen material price deflation as technology enables less expensive production and distribution. There will always be prices that move meaningfully higher. What we care about is the average price we're paying for all of the goods we consume.

A Changing Basket

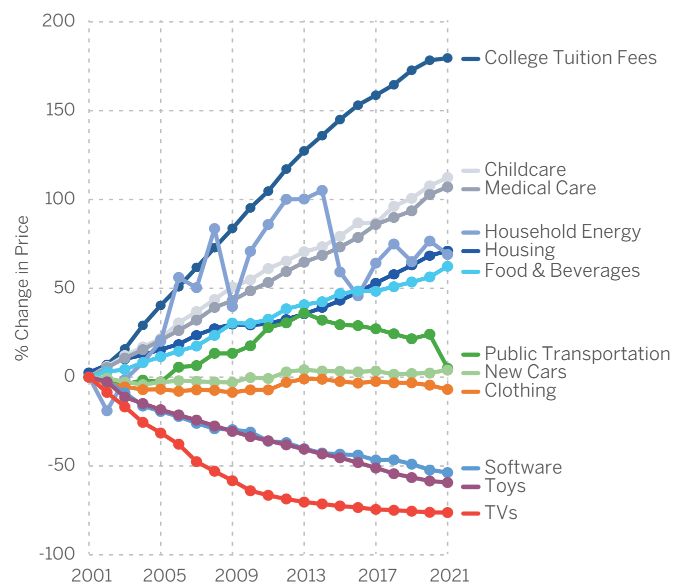
What we consume has shifted from mostly goods to mostly services over the past four decades, contributing to lower, more stable inflation.



As of 3/31/2021. Source: Bureau of Labor Statistics

Ending Up Even

The rise in the costs of certain items have generally been offset by declining prices elsewhere, leading to only modest overall inflation over the last two decades.



As of 12/31/2020. Source: U.S. Bureau of Labor Statistics

Fed Policy: New average inflation targeting (AIT) policy intends to let the economy "run hot" to create momentum. Informed by deflationary experiences historically and abroad, the Fed is enhancing measures in an effort to achieve its inflation target by expanding its balance sheet and keeping rates lower for longer.	Technology: E-commerce typically makes comparison shopping easy and drives down prices by helping consumers discover relatively inexpensive items. Technology also helps scalability and operating efficiencies from cloud computing, software, digital payments, robotics and improved logistics. Moore's Law allows technology components to be more powerful and less expensive over time.
Federal Spending: Three relief packages were passed in response to the COVID-19 pandemic since March 2020 and total more than $4.5 trillion. The extra federal dollars are expected to result in more demand for goods and services.	Globalization: Sellers from anywhere in the world can compete for business, making raising prices more difficult. Products and services can be provided by the least expensive and most efficient labor pools.
Trade Tensions: Rising populism and shifting geopolitical dynamics have led to protectionist trade policy, and global trade volumes have begun to recede. Globalization has been a deflationary force.	Demographics: Major developed economies typically have aging populations and slow population growth. This limits the share of the working-age population, which is a driver of economic growth and inflation.
Supply Chain Disruptions: The pandemic has led to reductions in the production of many commodities, and it will likely take time for inventories to rebuild at a time when demand is sharply rising. This is likely a temporary pressure that is expected to subside in 2022.	"Slack" in Economy and Labor Markets: Many countries have not had the same level of stimulus or vaccine delivery as the U.S. or U.K., leading to less inflationary pressure from abroad. Even the U.S. is far away from full employment.

Balancing Act: Inflation vs. Deflation

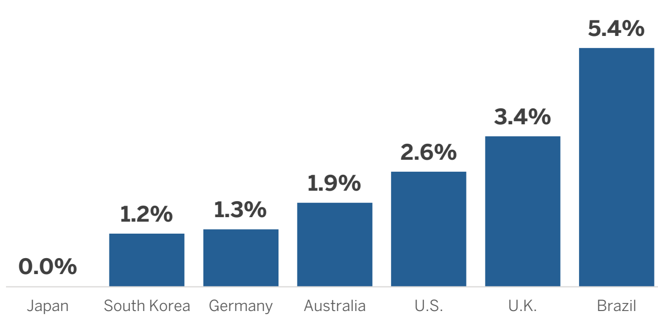
Several factors are driving the chances for persistently higher inflation at present.

We noted that policy is changing, presenting new risks of rising inflation. The most notable change was the U.S. Federal Reserve's shift to inflation targeting in August 2020. Prior to last year, the Fed had targeted a 2% core personal consumption expenditures (PCE) inflation rate. Recently, however, policymakers have become more sensitive to the problems of inflation being too low and the experiences in other regions, like Japan and the Eurozone, with persistently low inflation, as well as deflationary forces created by the pandemic. Its new policy targets 2% average inflation over an economic cycle, referred to as AIT.

The new policy represents a further inflationary bias, and the Fed likely would not have raised rates as it did a few years ago if it was using the current framework. In 2018, core PCE inflation was 2.1%, slightly above the Fed's target, and unemployment ranged between 4.1% and 3.7%. At that point, the Fed had already hiked rates to 1.5% and would hike four more times over that year. Under the new AIT framework, however, inflation would probably have to be even higher than 2.1% for the Fed to even start raising interest rates.

Around the World

Major world economies have very different rates of expected inflation, with many still struggling with deflationary pressures.



As of 3/31/21. Source: Bloomberg Five-year breakeven inflation.

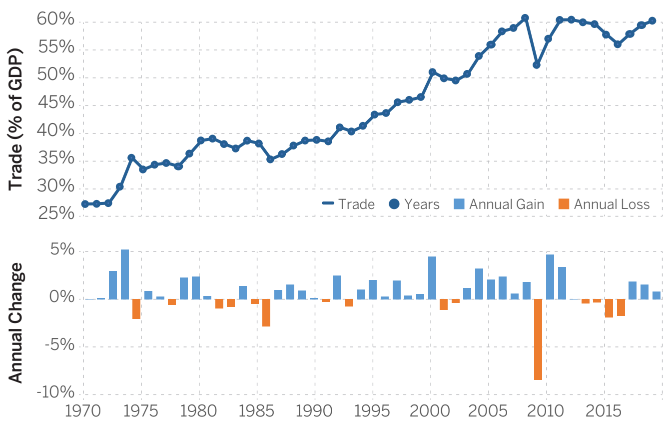
The second big change that could influence inflation is federal spending. Most economists now believe the fiscal response to the 2008 recession was too small and led to a slow recovery. There has also been a rethinking of how large the U.S. debt can get before becoming problematic. These two new ideas have led to a much larger federal spending level now than any past recession.

This new spending is inflationary as the extra federal dollars create demand for goods and services.

Another factor that helped hold inflation in check over the last 30 years was globalization. The rise of free trade agreements reduced prices directly through lower tariffs on imports and indirectly by reducing production and labor costs. Various components could be produced in the lowest-cost geography, brought together efficiently for assembly and then sent around the globe for sale. However, rising populism and shifting geopolitical dynamics have led to increasingly protectionist trade policy and, as a result, global trade volumes have plateaued.

Globalization Grinds to a Halt

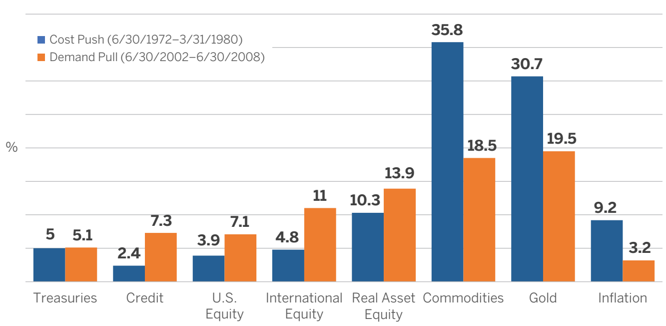
A major disinflationary force for decades, globalization has plateaued in recent years amid rising nationalist sentiment.



As of 12/31/2019. Source: World Bank

If History Is a Guide

Demand driven inflation is friendlier to equity investors, but regardless of the driver, real assets and commodities tend to shine.



As of 2/28/2021. Source: Bloomberg

Disinflationary Forces

Technology is a key deflationary driver. The rise of e-commerce and growing market share for companies like Amazon offers one example. These services enable price comparison, which makes it difficult for sellers to raise prices. Technology also drives improvements in manufacturing and logistics flexibility. Increased automation and streamlined supply chains allow production to scale up, scale down or even change what is being produced much more easily. The advent of cloud computing has turned a high fixed cost of data storage and computing into a lower variable cost for companies.

The 20–30% annual deflation in the cost of producing transistors has led to persistent reductions in the cost of computing. The shift from fossil fuels to renewable energy may also prove deflationary in the years to come, as we shift from finite resources that are increasingly difficult to extract to plentiful assets that can leverage the falling costs of technology over time.

Second, competition is nationwide or increasingly global. In the 1970s, if you were shopping for an article of clothing, your options were whatever stores were within driving distance. Now, technology allows sellers from anywhere to compete for your business, making increasing prices all the more difficult. This is expected to become even more powerful as consumers spend more of their money and time on online products, services and experiences.

Finally, current demographics are a source of deflationary pressure. Major developed economies typically have aging populations and slow population growth. This limits the share of the working-age population, which is a driver of economic growth and inflation. Moody's estimates that for every 1% decline in population growth, structural inflation declines by around 0.5%. Population growth in the U.S. has fallen from 1.5% during our last bouts of inflation in the 1970s to around 0.5% today, according to the Census Bureau, and is even lower in Europe and Japan.

Inflation Winners and Losers

First off, it is important to recognize that different types of inflation can also create different impacts on equities.

Demand-pull inflation coincides with reasonably strong demand, which comes with the benefit of robust economic activity. A good example of this is to compare the experience of cost-push inflation during the 1970's and the demand-pull inflation, during the 2000's.

Equities and credit both were able to outperform inflation in the demand-pull environment, unlike during the cost-push period. However, it's worth noting that real asset-oriented equities performed better in both periods. Diving deeper, the type of equity investment is also very important. Value-oriented companies tend to be more economically sensitive, and so we would expect them to be further insulated from the risk of a demand-driven inflationary environment.

Secondly, much of the risk from inflation comes from the corresponding impact on interest rates.

Bonds are clearly at risk from rising interest rates since bond prices decline as interest rates rise. However, this risk can vary significantly depending on the duration (duration being a measure of interest rate sensitivity based on how long it will take for the cash flows of the bond to return to investors) of the bonds. The risk for shorter-term bonds is modest, but longer-term bonds carry meaningful downside risk, as shown on the next page.

Looking at the bond market overall, we would expect the Bloomberg Barclays Aggregate Bond Index, which has a duration of around six years, to decline by around 3–4% in a hypothetical two-year scenario in which all yields rise by 2%.

But equities also have interest rate sensitivity, and growth-oriented companies have benefited dramatically from low interest rates, with the Russell 3000® Growth Index more than doubling the return of the Russell 3000® Value Index over the last 10 years. Growth-oriented companies are more sensitive to interest rates since their value is more dependent on large cash flow streams many years from now. The rate at which those cash flows are discounted, therefore, has a major impact on valuations, since higher rates makes future cash flows less valuable today.

In anticipation of these trends, we made shifts toward value-oriented strategies late last year and early in 2021. This shift has been rewarded thus far. Despite the strong recent performance for value stocks, they still appear inexpensive on a relative basis to the highest-growth segments of the market. Meanwhile, high-quality growth stocks had not seen their multiples expand nearly as much as the hyper-growth emerging technology stocks, and valuation-disciplined growth investors can still find attractive investments in this market.

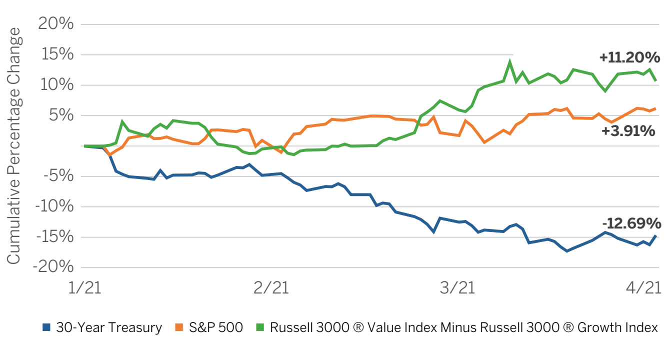
Commodities, Gold and Bitcoin

Commodities exposure has historically been a good way to protect against inflation given the category's strong returns in both cost-push and demand-pull scenarios shown above. However, commodities as investments can have some drawbacks.

First, commodities are highly volatile and highly dependent on inflation to generate returns. They are prone to suffering meaningful losses if inflation falls short of the market's expectations. Since the level of inflation remains unknown, as we note, this makes commodity investing risky.

Value Finally Shines

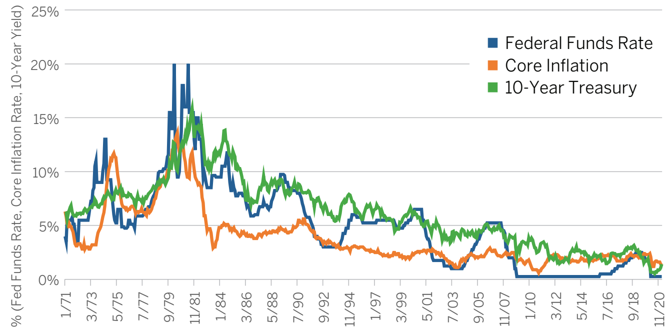
A rising rate environment since the start of the year has led to outperformance by value stocks over their growth peers.



As of 4/13/2021. Source: Bloomberg

Setting the Pace

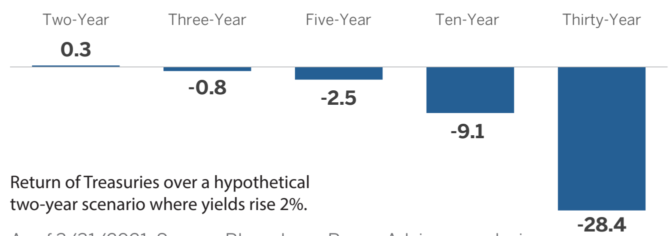
Longer-term interest rates are heavily influenced by inflation expectations as investors seek returns that can meet rising future costs.



From 1/1/21 to 4/13/21. Source: Bloomberg

Sharp Curve Ahead

The impact of a 2% rise in yieldsover a hypothetical two-year scenario may have a greater impact on bonds with longer-dated maturities. Reducing duration may offer relative protection from inflation.



As of 3/31/2021. Source: Bloomberg, Brown Advisory analysis.

Second, creating portfolio exposure to commodities is complicated. The buyer is generally not taking physical delivery of those commodities and is instead relying on futures contracts. The return of those contracts is highly dependent on risk-free interest rates and a "roll yield" based on the shape of the forward commodity curve. This creates dynamics that can meaningfully impair returns even if the buyer's inflation assumptions prove correct.

Finally, commodity benchmarks and portfolios are also often heavily tilted toward energy, a sector facing secular challenges due to the shift toward renewable energy sources and the rise of environmentally conscious investing.

Gold is also frequently thought of an inflation hedge since it can be considered a real and scarce asset. However, it also has drawbacks as an investment. It has limited commercial and industrial uses, and provides no cash flows. For fundamental investors, it can be difficult to see it as the best inflation hedge or store of value.

Gold may now also be seeing the cannibalization of its demand by Bitcoin, which is often seen as "digital gold" and an alternative store of value in an increasingly digital world. Bitcoin has its own drawbacks as well. It has experienced volatility six times that of gold and multiple 80% declines in value in recent years despite a strong uptrend. It also lacks the hundreds of years of battle testing of gold. Both gold and Bitcoin have considerable environmental impact due to the intensity of their mining in the physical and digital world, something we consider for our portfolios.

Cash Flow-Generating Assets: Best of Both Worlds?

We see cash flow-generating real assets as a way to generate reasonable returns in a steady-state scenario but with an upside, should inflation occur. These assets can provide the benefits of commodities in the form of hard assets but also cash flow generation. In real estate, the vertically integrated operators we invest with also have the opportunity to add value to these properties and generate excess returns above the asset class average.

We also like the prospects of certain infrastructure assets. These infrastructure assets tend to have their cash flows contractually tied to inflation, exhibit strong moats around their businesses, have high margins and we believe that they are positioned to benefit from a rebound in economic growth. The valuations of many of these toll road-like businesses are also attractive at the moment, offering free cash flow yields of 10% or more.

Lastly, we would posit that the equity of high-quality growing businesses that provide unique and valuable products and services can provide protection against inflation. The pricing power of a company is perhaps the most critical determinant of performance during periods of inflation, whether a company is considered growth or value. Warren Buffett has stated that pricing power is "the single most important decision in evaluating a business. If you've got the power to raise prices without losing business to a competitor, you've got a very good business." Companies with unique products or services, higher margins, and better management teams can pass along rising input costs and take share from their struggling competition.

A company like Microsoft, with unique and mission-critical business solutions, boasts net profit margins of over 30%, basically all of which is free cash flow, indicative of its pricing power. Likewise, Taiwan Semiconductor, the unquestioned global leader in chip manufacturing, has a technological advantage that provides it attractive pricing power and allows for 38% net profit margins.[1] Starbucks has already raised prices multiple times in the past year as coffee prices have risen, passing those increases along to its customers. Likewise, Eagle Materials has raised its wallboard prices twice in the past six months as its input prices have risen. Additional companies we own, like Disney, Visa, Autodesk, Apple and Alphabet, also represent companies we believe have pricing power. While we haven't seen much consumer price inflation in the last 20 years, we have seen rises in the prices of many financial assets. If the supply of money continues to increase and inflation concerns rise, investors could seek refuge in the confines of the best businesses on offer in the stock market.

[1] Source: Bloomberg, 2020 fiscal year net margin. Company reports and Brown Advisory communications. As of 4/30/2021.

Conclusion

After decades of moderation and prior false alarms, inflationary forces may be rising in the U.S. economy. This may introduce the risk of overheating and inflation not seen in decades. We have been making changes to our investment portfolios to reflect these risks by reducing our exposure to longer-dated bonds, increasing our exposure to real estate and infrastructure assets, and taking gains in higher-growth stocks, which have benefited disproportionately from the low rate environment. However, we also recognize that structural deflationary pressures remain in today's economy, and we aren't yet concerned that inflation will reach the disruptive levels experienced in periods like the 1970s. We are not recommending investments in traditional inflation safe-havens like commodities due to cyclical, secular and structural impediments to investments in these areas.

Within our stock portfolios, the most important factor we are focused on is pricing power. In an inflationary environment, the quality of a company's product or service should provide it with the pricing power needed to survive and thrive. Therefore, even as we have tilted more toward value strategies, we are focused on companies with defensible moats around their businesses and capable management teams. Finally, inflation is far from the only risk on our minds. This focus on high-quality companies and credits with reasonable valuations helps mitigate a broad spectrum of risks we face today and generates solid long-term returns.

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