Inflation Is REAL: An In-Depth Look at Today's U.S. Inflation

DoubleLine Macro-Asset Allocation Team | May 2022

History doesn't repeat itself, but it often rhymes.

\- Mark Twain

Highlights

1. The U.S. inflation rate hit 8.5% in March, with many price categories reporting the **highest inflation rates in decades**. Prices in the U.S. are still **surging**, and price pressures are **broad**.

2. We identify a few secular drivers of this inflation cycle and warn that inflation pressures could be **persistent**.

3. We expect U.S. inflation to **peak in the coming months** but **remain highly elevated for a longer period**, as U.S. monetary and fiscal policies will likely be ineffective in controlling the inflation problems in the near term.

4. We see two sides of the story with American consumers on energy spending. While consumers today may have **more alternatives** to control their energy spending than in previous inflationary periods, energy price spikes could **hurt consumer spending broadly**. An oil and commodity shock in extreme cases could result in **stagflation** or even a **recession** in the U.S.

5. We suggest investors hold **commodities** and **Treasury Inflation-Protected Securities** in their portfolio to hedge against rising inflation risk.

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Introduction

Inflation is a hot topic these days, as prices of goods and services have been increasing at their fastest pace in over 40 years. U.S. consumers are paying 14% more for food than before the pandemic. Those in the market for a used car can expect to pay 52% more compared to 2019. The sticker shock at the pump is even greater, with average gasoline prices soaring 59% from two years ago.[1]

Inflation is here, and combating inflation is the top priority of the Federal Reserve. Due to the rising inflation pressure in the U.S., the Fed announced on March 16 its first hike of 25 basis points (bps) to the federal funds rate since 2018. At DoubleLine, we think the pace of Fed rate hikes could largely depend on the inflation path this year, and, more importantly, how inflation expectations will be anchored.[2] Since fighting inflation is its top priority, the Fed could become more hawkish than expected, perhaps frontloading a few 50-bp hikes over the coming months and starting reduction of its balance sheet sooner than previously expected. This is exactly what happened on May 4 – the Fed decided to raise the target federal funds rate 50 bps and start its balance-sheet reduction in June. During the Federal Open Market Committee press conference that day, Fed Chair Jerome Powell confirmed additional 50-bp increases at the next couple of meetings.

Unfortunately, we think the Fed's monetary policy and the Biden administration's new fiscal policies are unlikely to bring immediate relief to inflation in the near term.[3] We expect high inflation in the U.S. to remain persistent, although possibly peaking in coming months. The recent volatility in energy prices creates significant uncertainty in near- and intermediate-term inflation outlooks.

In this piece, we will address:

1) The current inflation dynamic and how we got to where we are now
2) Our near-term outlook on inflation
3) Investment implications

1. U.S. Inflation Is Broad Based

Prices are surging in the U.S. The Consumer Price Index (CPI) hit 8.5% in March, the highest year-over-year (YoY) spike since December 1981.[4] *(Figure 1)* At DoubleLine, we see **U.S. inflation as broad based**, with four major categories – energy, food, core goods and core services – all making significant contributions to the overall rate. Excluding volatile items such as food and energy, core inflation hit 6.5% YoY in March, the highest increase since August 1982.

U.S. CPI and Core CPI Year-Over-Year (%) | As of March 31, 2022

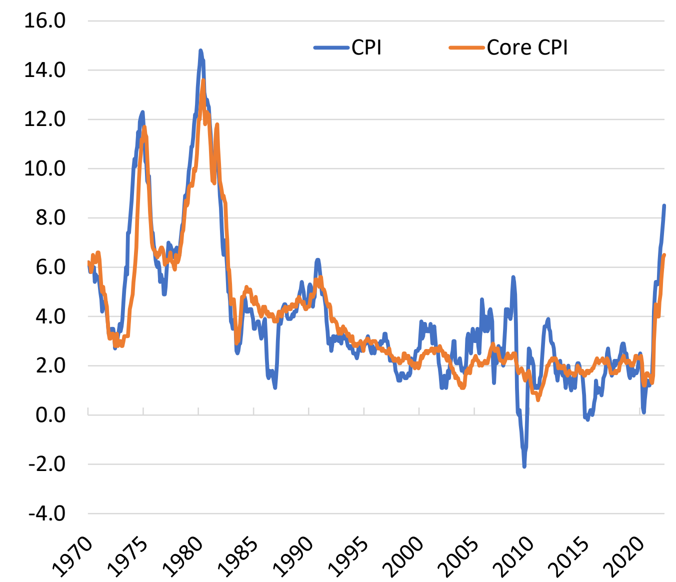

Figure 1
Source: Haver, DoubleLine

Energy: Shortages of energy commodities alongside rising demand fueled by the global economy's emergence from the pandemic have put upward pressure on energy prices. As a result, the average retail price of gasoline in the U.S. reached $4.33 on March 10, 53% higher YoY.[5] The Russian-Ukraine war has further pressured energy prices globally as many European and other countries look for alternatives to Russian energy imports.

Food: Food prices jumped 8.8% YoY in March, the biggest one-year gain since May 1981. Food inflation is sensitive to agriculture commodity prices, and producers' pass-through of price hikes to consumers usually lags.[6] Russia and Ukraine are large exporters of key agriculture commodities, including wheat, seed oils and fertilizers. Given the likelihood of a prolonged conflict, food prices could remain elevated for the foreseeable future.

Core Goods: Prices of core goods surged 12% YoY in March, reflecting continued tightness in supply chains. For example, used-car prices rose a dramatic 35% YoY due in part to a chip shortage, and new-car prices rose 13% YoY. Likewise, apparel prices jumped nearly 7%, and prices of household furnishings and supplies, a major component of core goods in CPI, climbed more than 10%. Given the major disruptions to the global supply chain during the pandemic and the fallout from the Russia-Ukraine war, core goods prices could continue to be elevated in the coming months if not years.

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U.S. CPI YoY Heat Map by Category | As of March 31, 2022

Mar-22 weight	Component	Mar-22	Feb-22	Jan-22	Dec-21	Nov-21	Oct-21	Sep-21	Aug-21	Jul-21	Jun-21	May-21	Apr-21
100.0	**Headline CPI**	8.5%	7.9%	7.5%	7.0%	6.8%	6.2%	5.4%	5.3%	5.4%	5.4%	5.0%	4.2%
	2yr annualized rate	5.6%	4.7%	4.4%	4.1%	3.9%	3.7%	3.4%	3.2%	3.1%	3.0%	2.6%	2.2%
13.4	Food	8.8%	7.9%	7.0%	6.3%	6.1%	5.3%	4.6%	3.7%	3.4%	2.4%	2.2%	2.4%
8.2	Food At Home	10.0%	8.6%	7.4%	6.5%	6.4%	5.4%	4.5%	3.0%	2.6%	0.9%	0.7%	1.2%
5.1	Food Away From Home	6.9%	6.8%	6.4%	6.0%	5.8%	5.3%	4.7%	4.7%	4.6%	4.2%	4.0%	3.8%
8.3	Energy	32.0%	25.6%	27.0%	29.3%	33.3%	30.0%	24.8%	25.0%	23.8%	24.5%	28.5%	25.1%
4.9	Energy Commodities	48.3%	37.9%	39.9%	48.9%	57.5%	49.5%	41.7%	41.9%	41.2%	44.2%	54.5%	47.9%
3.4	Energy Services	13.5%	12.3%	13.6%	10.4%	10.7%	11.2%	8.5%	8.6%	7.2%	6.3%	6.2%	5.4%
78.3	**Core CPI**	6.5%	6.4%	6.0%	5.5%	4.9%	4.6%	4.0%	4.0%	4.3%	4.5%	3.8%	3.0%
	2yr annualized rate	4.0%	3.8%	3.7%	3.5%	3.3%	3.1%	2.9%	2.8%	2.9%	2.8%	2.5%	2.2%
4.0	Household Furnishings and Supplies	10.8%	10.3%	9.3%	7.4%	6.0%	6.1%	4.8%	3.3%	3.0%	3.4%	3.7%	3.2%
2.5	Apparel	6.8%	6.6%	5.3%	5.8%	5.0%	4.3%	3.4%	4.2%	4.2%	4.9%	5.6%	1.9%
8.6	Motor Vehicles & Parts	21.8%	23.9%	23.4%	21.8%	19.2%	16.5%	14.9%	17.2%	19.8%	20.3%	13.3%	9.2%
4.0	New Vehicles	12.5%	12.4%	12.2%	11.8%	11.1%	9.8%	8.7%	7.6%	6.4%	5.3%	3.3%	2.0%
4.0	Used Cars and Trucks	35.3%	41.2%	40.5%	37.3%	31.4%	26.4%	24.4%	31.9%	41.7%	45.2%	29.7%	21.0%
1.5	Medical Care Commodities	2.7%	2.5%	1.4%	0.4%	0.2%	-0.4%	-1.6%	-2.5%	-2.1%	-2.2%	-1.9%	-1.7%
1.9	Recreation Commodities	4.7%	4.6%	4.1%	3.3%	3.9%	4.0%	3.5%	3.3%	3.2%	3.2%	3.5%	2.9%
0.8	Education and Communication Commodities	1.3%	0.3%	0.8%	0.2%	0.9%	2.5%	2.6%	-0.5%	-0.2%	-1.2%	-1.4%	-2.2%
0.9	Alcoholic Beverages	3.7%	3.5%	2.7%	2.3%	1.9%	2.2%	2.8%	2.6%	2.4%	1.9%	1.6%	1.9%
1.3	Other Goods	5.3%	4.9%	4.3%	4.6%	4.3%	4.5%	3.4%	3.4%	2.7%	2.5%	2.5%	2.3%
32.5	Shelter	5.0%	4.7%	4.4%	4.1%	3.8%	3.5%	3.2%	2.8%	2.8%	2.6%	2.2%	2.1%
23.8	Owners' Equivalent Rent of Residences	4.5%	4.3%	4.1%	3.8%	3.5%	3.1%	2.9%	2.6%	2.4%	2.3%	2.1%	2.0%
7.3	Rent of Primary Residence	4.4%	4.2%	3.8%	3.3%	3.0%	2.7%	2.4%	2.1%	1.9%	1.9%	1.8%	1.8%
1.0	Lodging Away From Home	25.1%	25.1%	20.5%	23.9%	22.2%	22.3%	17.5%	17.4%	21.5%	15.1%	9.0%	7.4%
1.1	Water & Sewer & Trash Collection Services	4.0%	4.2%	4.0%	3.5%	3.5%	3.7%	3.7%	3.5%	3.7%	3.6%	3.4%	3.6%
0.8	Household Operations					8.4%	6.9%	6.6%	7.3%	7.0%	7.2%	8.3%	4.9%
6.9	Medical Care Services	2.9%	2.4%	2.7%	2.5%	2.1%	1.7%	0.9%	1.0%	0.8%	1.0%	1.5%	2.2%
5.7	Transportation Services	7.7%	6.6%	5.6%	4.2%	3.9%	4.5%	4.4%	4.6%	6.4%	10.4%	11.2%	5.6%
0.5	Airline Fares	23.6%	12.7%	4.9%	0.7%	-4.5%	-4.4%	0.9%	6.5%	18.0%	24.8%	25.2%	10.7%
3.2	Recreation Services	4.8%	5.1%	5.0%	3.3%	2.8%	3.8%	3.5%	3.5%	3.7%	1.9%	0.6%	1.8%
5.4	Education and Communication Services	1.6%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.3%	1.2%	2.4%	2.2%	2.0%
1.4	Other Personal Services	5.7%	6.2%	5.4%	4.3%	4.5%	4.0%	3.4%	3.6%	3.1%	2.5%	2.8%	3.0%

Figure 2
Source: Haver, BofA Global Research, DoubleLine

Core Services: Costs of core services increased over 4% YoY in March, the biggest advance since July 1991. Shelter costs – which make up about a third of the overall CPI – gained 5.0% YoY. Rents stayed robust as owners' equivalent rent climbed 4.5% YoY. As COVID-19 cases declined in the U.S. and businesses reopened, transportation and travel services surged.[7] Compared to March 2021, airline fares spiked 24%; car and truck rental soared 23%; and hotel prices skyrocketed 25%, feeding into shelter inflation. We expect that upward pressure on rents will remain high, and the continued economic reopening will support strong core services readings in the near term at least. *(Figure 2)*

2. Secular Inflation Drivers

1. Money Printing

Since the start of the pandemic in March 2020, the U.S. has accumulated $6.0 trillion in fiscal deficits, money supply (indicated by M2) has increased by $6.4 trillion, and the Fed balance sheet has more than doubled from $4 trillion to almost $9 trillion. *(Figure 3)* One of the core reasons for the surge in inflation was the convergence of extreme fiscal and monetary policies including quantitative easing.[8]

Larry Summers, former U.S. Treasury secretary from 1999 to 2001 and a former top economic adviser to President Barack Obama, noted in May 2021, "We are printing money, we are creating government bonds, we are borrowing on unprecedented scales."[9] These policies marked the first time in recent U.S. history that the government sent stimulus checks directly to hundreds of millions of Americans. Also, according to Summers, "income support

U.S. Cumulative Fiscal Deficits and Increase in M2 and Fed Assets | As of March 2022

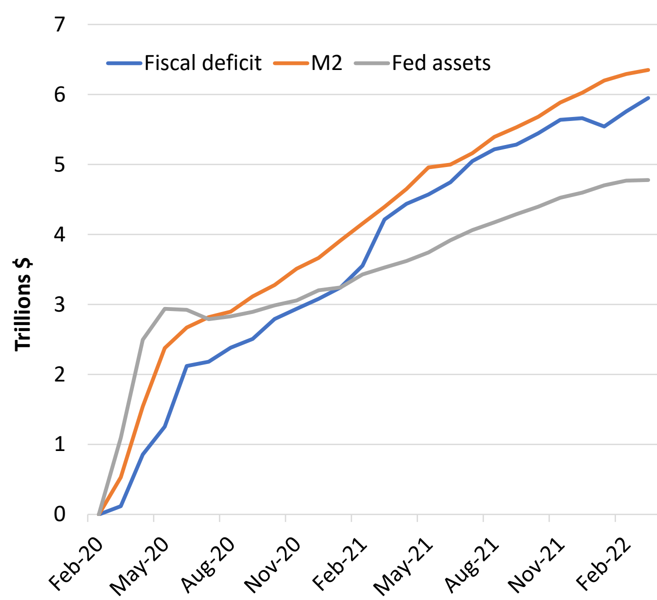

Figure 3
Source: Haver, DoubleLine

payments to households and businesses in 2021 far exceeded any reasonable estimate of income reductions due to COVID-19."[10] One result of such robust government payment transfers was a boost to the American consumers' spending power, with rising demand leading to rising prices across the board.

2. Deglobalization
Many believe that the multidecade globalization trend has already peaked, with a shift to deglobalization taking place since the 2008 Global Financial Crisis.[11] The COVID-19 pandemic's restrictions on business and travel have accelerated the deglobalization shift, which could lead to continued and persistently higher inflation globally as countries raise trade barriers to protect their own interests.

Rising transportation costs have been further pressuring global trade. Costs for containers shipping from Shanghai in April 2022 were five to 10 times higher than two years ago.[12] These cost hikes have diminished the profitability of global value chains significantly, resulting in a decline in cross-border trade. A recent survey shows that about 19% of German manufacturing firms plan to reshore production.[13] Some American companies plan to bring manufacturing home as well.[14] This is becoming a new trend post-pandemic, and, as a result, manufactured goods could become more expensive going forward from higher labor and production costs in the home countries.

3. Global Supply Chain Bottlenecks
Deglobalization and the pandemic have greatly impacted the global supply chain, with bottlenecks having become a major headwind for the global economy since the start of the pandemic. Factory shutdowns, particularly in Asia; worldwide lockdowns; and mobility restrictions have resulted in longer delivery times and other disruptions across logistics networks.

According to the Global Supply Chain Pressure Index (GSCPI), supply chain disruptions peaked at the end of 2021. *(Figure 4)* Although we have started to see some easing in the bottlenecks, global supply chains have still been deteriorating. Supply chain bottlenecks are proving very challenging to unwind, and severe disruptions caused by the pandemic coupled with the deglobalization trend could take more than a few years to fix.

The current inflation problems are at risk of becoming a vicious cycle. We have identified three global secular drivers – money printing, a deglobalization trend and supply chain bottlenecks – that are contributing significantly to the current dynamic. Unfortunately, we see no easy near-term fixes to surging inflation in the U.S.

3. We Expect U.S. Inflation to Be More Persistent

At DoubleLine, we have been holding a hawkish inflation view since late 2020, when we saw the base effect from energy prices as an early indication of rising inflation in the U.S. The global supply chain bottlenecks have only exacerbated inflation pressures.

New York Fed Supply Chain Pressure Index | As of Feb. 28, 2022

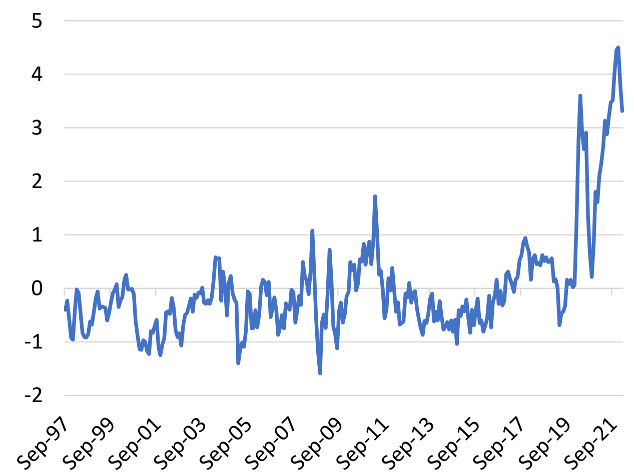

Figure 4
Source: Bloomberg, DoubleLine

Looking forward, we see there are three major factors that could ultimately transform current inflation pressures into something more persistent.

Wages: The U.S. labor market has rebounded quickly, which has led to wages rising consistently in the past few months, according to the Federal Reserve Bank of Atlanta's Wage Growth Tracker. *(Figure 5)* A continued increase in wages will facilitate greater consumer price pressure. In particular, the lower-income cohort tends to be more budget constrained and, thus, more likely to pass through higher wages to consumer goods and services prices, resulting in the so-called wage-price spiral.

Atlanta Fed Wage Growth Tracker, Hourly Earnings Growth and Employment Cost Index Growth | As of March 31, 2022

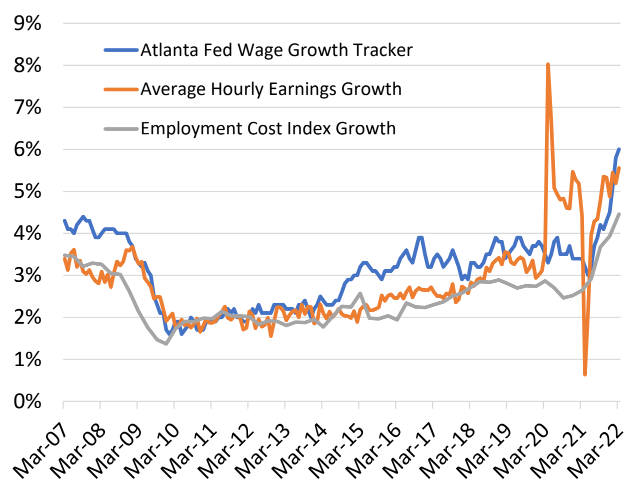

Figure 5
Source: Haver, DoubleLine

Shelter Inflation: Shelter cost is the biggest category in the CPI, and we consider shelter cost inflation a more structural and stickier issue than the inflation impacting other components of the CPI. According to high-frequency data, rents are indeed rising fast.[15] Given a strong housing market nationwide, we continue to expect a strong rental market, and rents could stay firm for many months going forward. *(Figure 6)*

Housing Price vs. Shelter Inflation | As of March 31, 2022

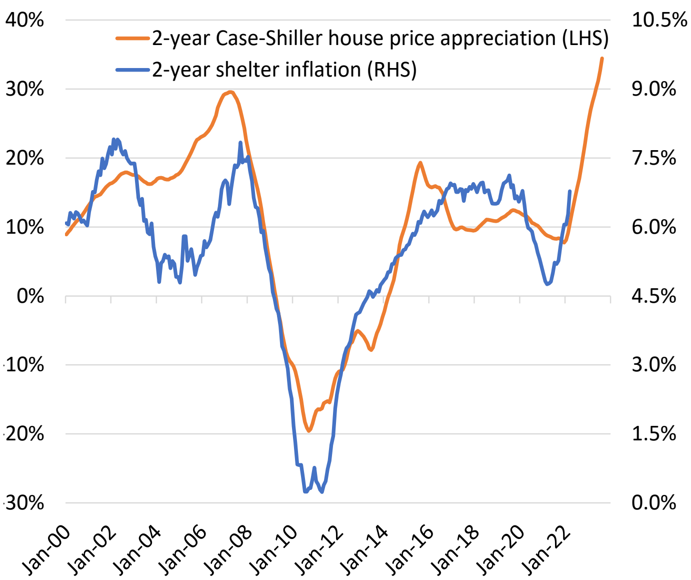

Figure 6
Source: Haver, DoubleLine

Inflation Expectations: We suspect rising inflation expectations could potentially transform temporary inflation into something more persistent and difficult to control. Persistent price increases could fuel inflation expectations, which we have already seen some evidence of as various gauges of inflation expectations have begun to move higher in consumer surveys and market measures. For example, the University of Michigan's measure of inflation expectations for one year ahead has reached 5.4%, and the Federal Reserve Bank of New York's survey of consumer inflation expectations for one year ahead has increased to 6.6%. *(Figure 7)* Sheila Bair, former chair of the Federal Deposit Insurance Corp., said in a CNBC interview on March 18, "I think 2023 is much more likely when we see peak inflation."

At DoubleLine, we believe rising commodity prices stemming from the Russia-Ukraine war and escalated supply chain disruptions due to China's zero-Covid-19 policy could further complicate the inflation conundrum and make high inflation more persistent. In the coming months, thanks to high energy and food prices, we expect U.S. headline inflation to peak but potentially stay above 6% or 7%.

Consumer Inflation Expectations | As of March 31, 2022

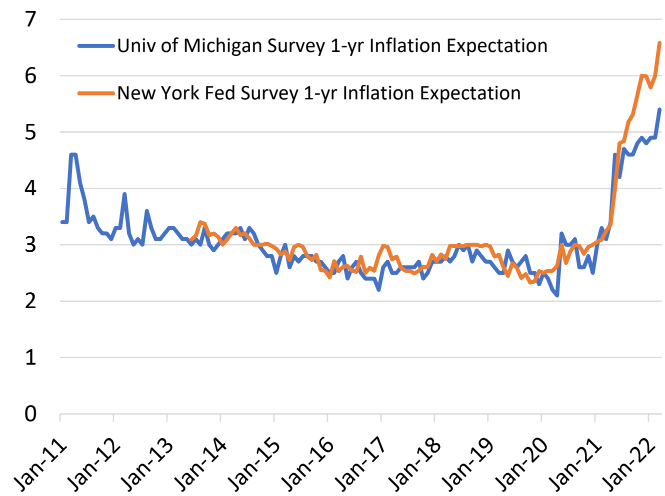

Figure 7
Source: Haver, DoubleLine

4. In Case of an Energy Shock

Throughout history, there are many examples of surging energy prices preceding economic recessions in the U.S. *(Figure 8)* While we don't want to mistake correlation for causation in today's situation, we see many similarities to the 1970s, although even within this comparison there are some major differences between the two periods.

Oil Price Spikes Associated With U.S. Recessions
As of March 31, 2022

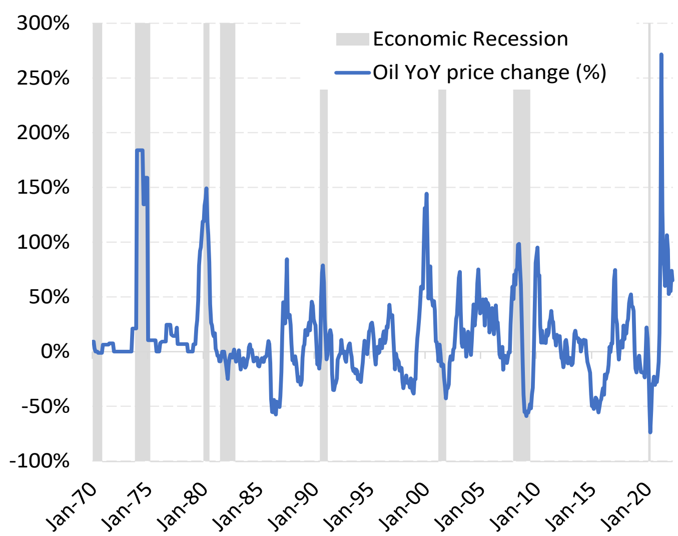

Figure 8
Source: Haver, DoubleLine

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A striking difference from the 1970s is that energy represents a smaller portion of consumer spending today. According to the U.S. Bureau of Economic Analysis, spending on energy goods and services was between 6% and 9% of the Personal Consumption Expenditures (PCE) Price Index in the 1970s versus only 4.7% as of March 2022. If energy prices continue to rise, consumers might decide to drive less.

Consumer spending is essential as it represents more than 70% of the U.S. economy. High energy prices could serve like a tax and result in reduced spending on non-necessities. We see a scenario where in extreme cases like crude oil prices reaching $150 or higher, the U.S. might slip into stagflation or even recession. *(Figure 9)*

U.S. Inflation Under Different Oil Prices | As of March 31, 2022

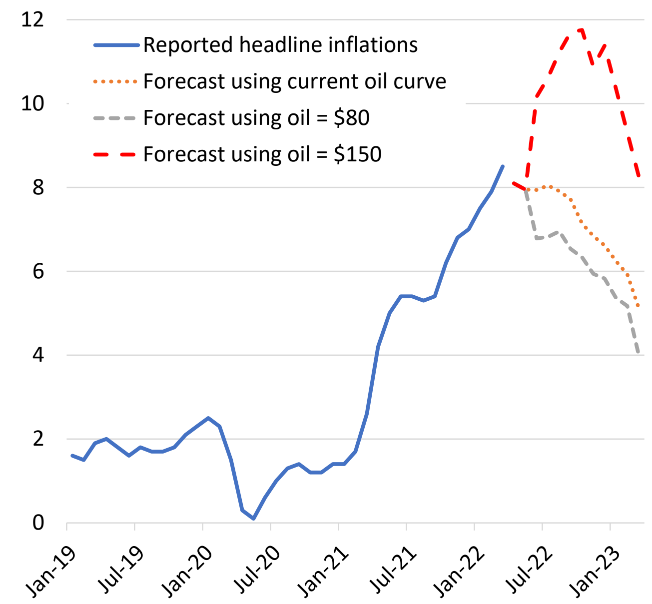

Figure 9
Source: Bloomberg, DoubleLine

5. Investment Implications

Surging inflation creates a complicated environment for investors. As we highlighted in our asset allocation piece in 2019, history shows that equities, Treasuries and credit tend to underperform during periods of high inflation while commodities tend to outperform. This is exactly what we have witnessed so far in 2022, with few assets generating positive real returns. As of April 29, the S&P 500 Index had returned negative 12.9% year-to-date, the Bloomberg US Aggregate Bond Index had returned negative 9.5%, and the Bloomberg US Corporate Bond Index had returned negative 12.7% while the Bloomberg Commodity Index (BCOM) had returned 30.6%. Going back 12 months, a traditional 60-40 portfolio (60% stocks and 40% bonds) would have returned negative 3.3% versus the BCOM's 43.3%. When taking April's nearly 8% inflation into account, a traditional diversified 60-40 portfolio without commodities would have delivered double-digit negative real loss.

In response to this environment, we like Treasury Inflation-Protected Securities (TIPS) on the front end of the yield curve in particular because of their low duration. We think TIPS could continue to outperform nominal Treasuries over the medium term. In addition, we like commodities as inflation hedges. Traditionally, commodities tend to outperform in an inflationary environment. *(Figure 10)*

Commodities Perform Well During Rising Inflationary Periods
As of March 31, 2022

Rising Inflation	Stocks	Bonds	Commodities
Real Return	3.3%	-0.3%	12.0%
Volatility	15.8%	4.6%	19.3%
Real Return/ Volatility Ratio	0.2	-0.1	0.6
Falling Inflation	**Stocks**	**Bonds**	**Commodities**
Real Return	11.6%	5.4%	-10.2%
Volatility	14.8%	5.5%	13.9%
Real Return/ Volatility Ratio	0.8	1.0	-0.7

Figure 10
Source: Bloomberg, DoubleLine

In our 2018 inflation piece, we advised that investors overweight TIPS and commodities in their multi-asset portfolio. Since 2018, TIPS have returned 23% and the BCOM has returned 42%, soundly beating the Bloomberg US Treasury Index return of 9% and the Bloomberg US Aggregate Bond Index return of 10%.

Our investment advice is inflation risk is REAL. We suggest investors have decent exposures to real assets such as TIPS, commodities and cash in their multi-asset portfolio.

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Citations

[1] We use the U.S. CPI Urban Consumers NSA Index to calculate the appreciation of food and used-car prices in March 2022 versus December 2019 (as the pre-pandemic month). We use AAA daily national average prices of regular unleaded gasoline to track retail prices in the U.S.

[2] Federal Reserve Chair Jerome H. Powell said on March 16, "Each Fed meeting this year is a live meeting," and "the Fed might hike more than 25 basis points in one meeting." As of May 6, the markets had priced in a nearly 100% chance for a rate hike of 50 bps in June and July 2022.

[3] There are a few reports that the Biden administration will announce new policies to fight inflation: https://www.nytimes.com/2022/03/01/us/politics/inflation-biden-state-of-the-union.html; https://www.cnn.com/2022/03/01/economy/us-inflation-biden-state-of-the-union/index.html

[4] We use the U.S. CPI Urban Consumers NSA Index to calculate the year-over-year inflation rate.

[5] We use AAA daily national average prices of regular unleaded gasoline to track retail prices in the U.S.

[6] We find food prices tend to follow the changes of agriculture futures prices with a lag of six to 12 months.

[7] New daily cases of COVID-19 in the U.S. declined sharply from over 1 million in January to under 30,000 in March, according to the Centers for Disease Control. https://covid.cdc.gov/covid-data-tracker/#datatracker-home

[8] "Greed & Fear," Christopher Wood, Jefferies, Jan. 20, 2022

[9] "Larry Summers sends stark inflation warning to Joe Biden," CNN.com, May 27, 2021 https://www.cnn.com/2021/05/26/economy/inflation-larry-summers-biden-fed/index.html

[10] "The Fed Must Do Much More to Fight Inflation – And Fast," Lawrence H. Summers, Time, https://time.com/6157535/the-fed-must-do-much-more-to-fight-inflation-and-fast/

[11] "Will Deglobalization Fuel Inflation?," Dalia Marin, Project Syndicate, Nov. 2, 2021 https://www.project-syndicate.org/commentary/deglobalization-wage-price-spiral-in-advanced-economies-by-dalia-marin-2021-11

[12] Container shipping rates we tracked are WCI Shanghai to Los Angeles, New York or Rotterdam container freight benchmark rates per 40 food box.

[13] "Will Deglobalization Fuel Inflation?," Dalia Marin, Project Syndicate, Nov. 2, 2021 https://www.project-syndicate.org/commentary/deglobalization-wage-price-spiral-in-advanced-economies-by-dalia-marin-2021-11

[14] "Intel's $20 bln Ohio factory could become world's largest chip plant," Reuters, Jan. 21, 2022 https://www.reuters.com/technology/intel-plans-new-chip-manufacturing-site-ohio-report-2022-01-21/

[15] We learned from Zillow and Apartment List that median rents nationwide in the U.S. rose strongly in 2021 by more than 10 percent, with some places by more than 20 percent.

Basis Points (BPS) – Basis points (or basis point (bp)) refer to a common unit of measure for interest rates and other percentages in finance. One basis point is equal to 1/100th of 1%, or 0.01% or 0.0001, and is used to denote the percentage change in a financial instrument. The relationship between percentage changes and basis points can be summarized as: 1% change = 100 basis points; 0.01% = 1 basis point.

Bloomberg Commodity (BCOM) Index – This index (formerly the Dow Jones-UBS Commodity Index) is calculated on an excess return basis and reflects the price movements of commodity futures. It rebalances annually, weighted two-thirds by trading volume and one-third by world production, and weight caps are applied at the commodity, sector and group levels for diversification. The roll period typically occurs from the sixth to 10th business day based on the roll schedule.

Bloomberg US Aggregate Bond Index – This index ("the Agg") represents securities that are SEC registered, taxable and dollar denominated. It covers the U.S. investment grade, fixed-rate bond market, with components for government and corporate securities, mortgage pass-through securities and asset-backed securities. These major sectors are subdivided into more specific indexes that are calculated and reported on a regular basis.

Bloomberg US Corporate Bond Index – This index measures the investment grade, fixed-rate taxable corporate bond market. It includes U.S. dollar-denominated securities publicly issued by U.S. and non-U.S. industrial, utility and financial issuers.

Bloomberg US Treasury Index – This index measures U.S. dollar-denominated, fixed-rate nominal debt issued by the U.S. Treasury with a remaining maturity of one year or more. Treasury bills are excluded by the maturity constraint but are part of a separate Short Treasury Index.

Consumer Price Index (CPI) – This index, compiled by the U.S. Bureau of Labor Statistics, examines the weighted average of the prices of a basket of consumer goods and services, such as transportation, food and medical care. It is calculated by averaging price changes for each item in the basket. Changes in the CPI are used to assess price changes associated with the cost of living. The CPI is one of the most frequently used statistics for identifying periods of inflation or deflation.

Employment Cost Index (ECI) – Survey of employer payrolls conducted by the U.S. Bureau of Labor Statistics that measures the change in total employee compensation each quarter. It is used by a wide variety of stakeholders – economists, investors, employers – to track the state of the economy or set pay scales for their employees.

Federal Funds Rate – Target interest rate, set by the Federal Reserve at its Federal Open Market Committee (FOMC) meetings, at which commercial banks borrow and lend their excess reserves to each other overnight. The Fed sets a target federal funds rate eight times a year, based on prevailing economic conditions.

Global Supply Chain Pressure Index (GSCPI) – This index, developed and published by the Federal Reserve Bank of New York, draws upon shipping, air freight and purchasing managers' index data to track supply chain pressure and its impact on economic outcomes.

M2 Money Supply – Calculation of the money supply that includes all elements of M1 as well as "near money." M1 includes cash and checking deposits, while near money refers to savings deposits, money market securities, mutual funds and other time deposits. These assets are less liquid than M1 and not as suitable as exchange mediums, but they can be quickly converted into cash or checking deposits.

Owners' Equivalent Rent (OER) – Component metric used in the Consumer Price Index for the amount of rent that would have to be paid in order to substitute a currently owned house as a rental property. This value is also referred to as "rental equivalent." In other words, OER figures the amount of monthly rent that would be equivalent to the monthly expenses of owning a property (e.g., mortgage, taxes, etc.).

Personal Consumption Expenditures (PCE) Price Index – This index, published by the U.S. Bureau of Economic Analysis, measures price changes in consumer goods and services exchanged in the U.S. economy to reveal underlying inflation trends.

Quantitative Easing (QE) – An unconventional monetary policy used by central banks to stimulate the economy when standard monetary policy has become ineffective. A central bank implements quantitative easing by buying specified amounts of financial assets from commercial banks and other private institutions, thus raising the prices of those financial assets and lowering their yield, while simultaneously increasing the monetary base.

S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index – This index tracks the value of single-family housing within the United States and is a composite of single-family price indexes for the nine Census Bureau divisions.

Stagflation – Period characterized by slow economic growth and relatively high unemployment – or economic stagnation –which is at the same time accompanied by rising prices (i.e., inflation). Stagflation can be alternatively defined as a period of inflation combined with a decline in the gross domestic product (GDP).

Treasury Inflation-Protected Securities (TIPS) – Type of Treasury security issued by the U.S. government that is indexed to inflation in order to protect investors from a decline in the purchasing power of their money. As inflation rises, TIPS adjust in price to maintain their real value.

University of Michigan Consumer Sentiment Index – This index rates the relative level of current and future economic conditions through monthly surveys of about 500 U.S. households (ex Alaska and Hawaii). There are two versions of this data released two weeks apart, preliminary and revised. The preliminary data tends to have greater impact. A higher-than-expected reading should be taken as positive/bullish for the U.S. dollar; a lower-than-expected reading should be taken as negative/bearish.

Wage Growth Tracker – Measure of the nominal wage growth of individuals published by the Federal Reserve Bank of Atlanta. It is constructed using microdata from the Current Population Survey and is the median percent change in the hourly wage of individuals observed 12 months apart.

You cannot invest directly in an index.

Inflation Is REAL: An In-Depth Look at Today's U.S. Inflation

DoubleLine Macro-Asset Allocation Team | May 2022

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