

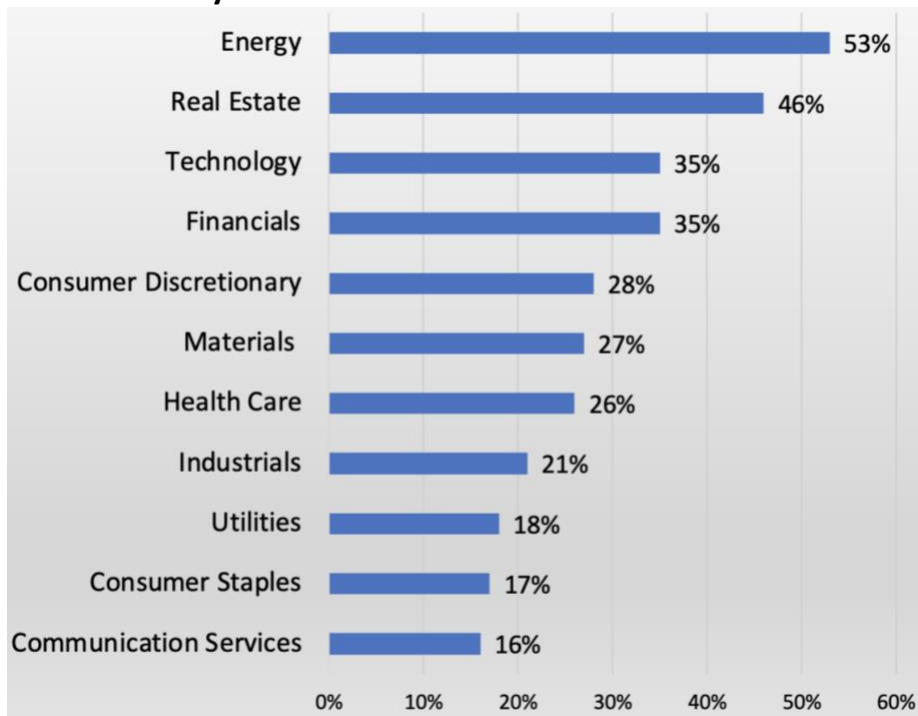
Are portfolios positioned for higher inflation?

Positioning for Higher Inflation will be the Portfolio Construction Topic in 2022

- The number one question coming from advisors is, “how should I prepare their portfolios for higher inflation?” Astoria Portfolio Advisors has had an out of consensus view that inflation would be higher than most were expecting. We began running inflation linked strategies in mid-2020.
- As a refresher, cyclically oriented sectors such as energy, materials, industrials, and financials have historically shown higher sensitivity to rising inflation. Indeed, energy stocks were the best performing sector in the US last year (see chart below).

Exhibit 1

2001 Return by Sector



Source: FactSet. Data as of December 31, 2021.

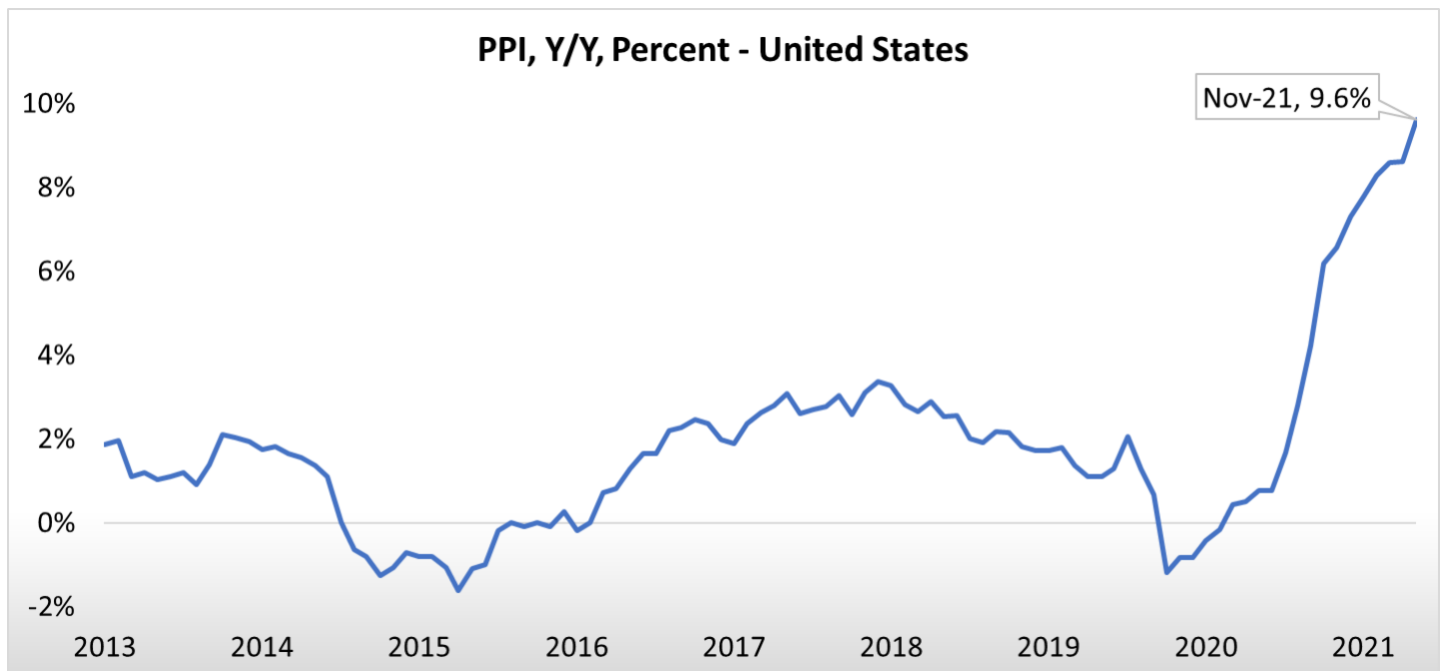
- Keep in mind that cyclicals are still trading at a discount to the market. For instance, the S&P 500 Energy sector trades at 12 PE ratio based on 2022 estimates. Hence, in Astoria’s opinion, inflation-linked assets still offer an attractive margin of safety.

PPI: Biggest Jump since the Index's Inception

- It has been a perfect storm for higher inflation. Supply chains broken plus tons of liquidity being pumped into the system by governments and central banks translated to higher-than-expected inflation.
- The Producer Price Index (PPI) rose 9.6% over the 12 months ended in November. This was the biggest jump since the PPI was first calculated in November 2010. November PPI saw a 0.8% increase in headline prices and 0.7% increase in both core measures. This reflects a rise from the October data, as supply chains and labor markets remain constrained as we progressed through the holiday shopping season.
- **The next PPI reading will come out January 13th at 8:30 am EST.** We believe elevated inflation levels will be the key theme in 2022. We will need to watch to see if continued elevated inflation pressures will impact consumer spending which can potentially hurt the US economic recovery.

Exhibit 2

United States PPI



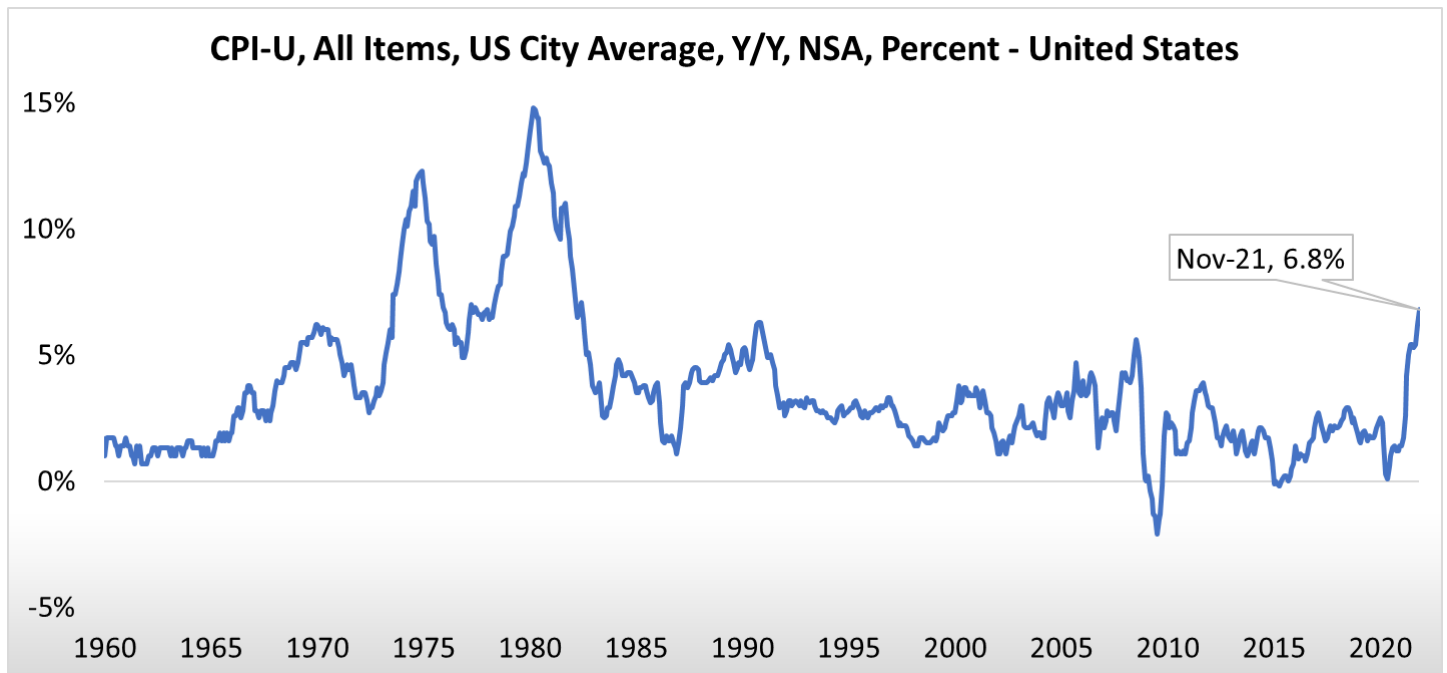
Source: FactSet. Data as of December 14, 2021.

CPI: Largest Inflation Print in 40 Years

- It's not just PPI which has reached elevated levels. As the chart below shows, the current level of the Consumer Price Index (CPI), another widely followed economic indicator for inflation, is at a 40-year high. Remember, inflation was largely ignored over the past decade, and as we have indicated on countless occasions in the past 18 months, Astoria thinks we are still in the early stages of the inflation cycle.
- Moreover, as we have argued in the past, we think inflation will remain structurally higher in the years ahead for the following reasons:
 - Supply chains take years to build. Apple cannot simply move their supply chains from Asia and build a factory in New Mexico overnight. It takes years...
 - Corporations have pricing power which they haven't had in some time. People are willing to pay higher premiums for goods/services.
 - Monetary stimulus continues to increase. M2 money supply has risen about 40% over the past 2 years. This is twice as much as the pace of monetary expansion following the 2008-2009 crisis.

Exhibit 3

United States CPI



Source: FactSet, US Department of Labor. Data as of December 10, 2021.

60/40 Portfolios are Not Prepared for Higher Inflation

- For the past 10 years, investors have experienced portfolio gains from lower interest rates which have resulted in large gains in US growth and technology stocks as well as outperformance in interest rate products. From our perch, a 60/40 portfolio may struggle if interest rates continue to rise (as they have since middle of 2020) unless appropriate inflation hedges are put in place.
- From a portfolio management standpoint, most portfolios are very much tilted towards deflationary strategies namely growth/technology stocks on the equity side and traditional interest rate products on the fixed income side. Both will struggle if rates continue to rise. Case in point: in the first week of January of 2020, interest rates spiked considerably, and we saw the following returns:
 - QQQ (growth stocks): -4.5%
 - S&P 500: -1.9%
 - XLE (energy stocks): +10.5%
 - KBWB (large-cap money center banks): +10.1%

 - AGG (core US bonds): -1.4%
 - IEF (7–10-year Treasuries): -2.0%

TIPS are Not the Best Inflation Hedge

- Last year, approximately \$40 bln went into TIPS related ETFs. TIPS, while gathering significant assets in 2021, are simply not enough to hedge inflation risk in Astoria's opinion. Why? TIPS ETFs were up on average 4-5% in 2021 and yes, they did outperform the Bloomberg Barclays Aggregate US Bond Index. However, CPI grew 6.8% year over year as of November's measure. Hence, TIPS investors still underperformed on an inflation adjusted basis. Astoria's investment discipline is to focus on after tax, after inflation, and risk adjusted returns. We remain steadfast that inflation linked strategies should be a core holding in investor portfolios.

Exhibit 4

TIPS ETFs AUM

Ticker	Name	AUM (\$MM)
TIP	iShares TIPS Bond ETF	\$38,839
SCHP	Schwab US TIPS ETF	\$21,303
VTIP	Vanguard Short-Term Inflation-Protected Securities ETF	\$19,864
STIP	iShares 0-5 Year TIPS Bond ETF	\$9,006
SPIP	SPDR Portfolio TIPS ETF	\$3,722
IVOL	Quadratic Interest Rate Volatility & Inflation Hedge ETF	\$2,399
TDDT	FlexShares iBoxx 3 Year Target Duration TIPS Index Fund	\$1,500
STPZ	PIMCO 1-5 Year US TIPS Index ETF	\$1,386
TIPX	SPDR Bloomberg 1-10 Year TIPS ETF	\$1,160
LTPZ	PIMCO 15+ Year US TIPS Index ETF	\$993
TDTF	FlexShares iBoxx 5 Year Target Duration TIPS Index Fund	\$772
WIP	SPDR FTSE International Government Inflation-Protected Bond ETF	\$453
TIPZ	PIMCO Broad US TIPS Index ETF	\$246
GTIP	Goldman Sachs Access Inflation Protected USD Bond ETF	\$209
PFIX	Simplify Interest Rate Hedge ETF	\$116
DFIP	Dimensional Inflation-Protected Securities ETF	\$74
PBTP	Invesco PureBeta 0-5 Yr US TIPS ETF	\$59
RINF	ProShares Inflation Expectations ETF	\$45

Total \$102,146 MM

Source: ETFAction. Data accessed on January 4, 2022.

Best,
John Davi

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