WINTHROP WEALTH

DECEMBER 2021 CLIENT QUESTION OF THE MONTH: Revisiting Inflation

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Inflation is simply defined as the rate at which prices increase over a period of time. This year inflation has moved from the economic section to the front page as many readings have reached their highest levels in decades. The increase in inflation is driven primarily by supply chain bottlenecks, surging energy prices, and pent-up demand as the United States continues to emerge from the worst of the pandemic. We first wrote about inflation in our June Client Question, where we detailed how the data is calculated, why the Fed cares about and targets inflation, and the impact it has on various asset classes (cash, fixed income, and equities). In our December Client Question, we thought it would be helpful to outline three potential scenarios for how inflation could impact the economy and stock market in 2022, provide an update on supply chain bottlenecks, and look at the latest readings of various inflation measures and forecasts.

At the start of the year, the Fed forecasted that inflation readings would temporarily increase during the summer before falling back toward their 2% goal in the winter (the December 2020 FOMC Summary of Economic Projections had an inflation forecast of 1.9% for the end of 2021). Throughout the year, the Fed referred to the rise in inflation as "transitory" and they stated it was mainly due to the base effect of comparing 2021's data to the early parts of the pandemic (when the economy was largely shutdown) on a year-over-year basis. As inflation readings remained higher than expected and forecasts continued to be raised higher, Fed Chair Powell finally admitted that it is time to "retire the word transitory" as it relates to inflation. In the intermediate term, we believe that inflation will decrease close to 2% due to the Fed's influence and the deflationary forces of technological innovation, aging demographics, and globalization. How long before inflation peaks and starts to decelerate toward 2% is an open question and one that we have been asked frequently moving into next year.

The following table outlines three different scenarios for various inflation outcomes and the potential impact on the economy and stock market in 2022. Keep in mind that these scenarios occur in a vacuum and only isolate inflation; there are many different variables that can and will impact the economy and markets next year. In our opinion, Scenario 2 is by far the most likely, with Scenario 1 as the next best odds, and Scenario 3 as possible but unlikely.

Scenario	Name	Description	Fed Response	Economy	Stock Market
1	Inflation Has Already Peaked	Inflation starts to decelerate in early 2022 and moves back toward 2% throughout the year.	The Fed gradually tightens monetary policy. 1-2 rate hikes in 2022.	↔ All else equal, the economy continues on its present course with GDP growth around 3.5% to 4.0% in 2022.	↔ All else equal the stock, market begins to trade based on fundamentals and valuation rather than fiscal stimulus and central bank support.
2	FOMC Successfully Tamps Down Inflation	Inflation stays persistently high in early 2022 and the Fed successfully brings it down toward target levels by the end of the year.	The Fed gets aggressive in tightening monetary policy. 3-4 rate hikes in 2022.	↓ Economic growth comes in lower than current estimates (~4%), but a recession is likely avoided.	↓ The stock market faces considerably more volatility compared to 2021, but there is no bear market.
3	Stagflation	Inflation continues to rise while economic growth slows and the unemployment rate increases. The Fed's response unsuccessfully brings down inflation.	The Fed gets very aggressive in tightening monetary policy 1-2 rate increases at each meeting for the foreseeable future.	↓↓ Recession	↓↓ Bear market (-20% decline).

No matter which scenario occurs next year, we are still trying to combat the current rise in inflation and potential rise in volatility by doing three things:

- **Portfolio Positioning**: we are holding little cash in portfolios, avoiding long-term bonds, and overweighting equities of companies that are able to grow their cash flows, earnings, and dividends.
- **Planning for Cash Flows**: Based on our total net worth approach to both comprehensive financial planning and investment management, we identify and plan for portfolio withdrawals by investing at least two years' worth of estimated cash flows in short duration, high quality, liquid, fixed income securities. Please see our ***Client Question on Withdrawing Money***.
- **Taking Profits and Preparing for Volatility**: Throughout the year we have continued to take profits and rebalance portfolios more defensively as the equity markets have moved higher. As we wrote about in our ***Client Question on Market Declines***, we will attempt to utilize market volatility as opportunities to tax-loss harvest and reposition portfolios.

Supply Chain Update

Supply chains have become clogged this year due to a combination of worker and parts shortages, covid restrictions, and pent-up demand. Keep in mind that the supply chain is global so different factors like covid restrictions in other countries can impact how fast goods arrive in the United States. Most supply chain indicators show that congestion is still very elevated compared to normal environments, but on the bright side, several measures have improved from their worst levels over the past several weeks. We thought it would be helpful to provide an update on several supply chain indicators as a reduction in congestion will go a long way toward decreasing inflation.

Goldman Sachs Supply Chain Congestion Scale

From the latest Goldman Sachs Supply Chain Congestion Scale report (December 13, 2021):

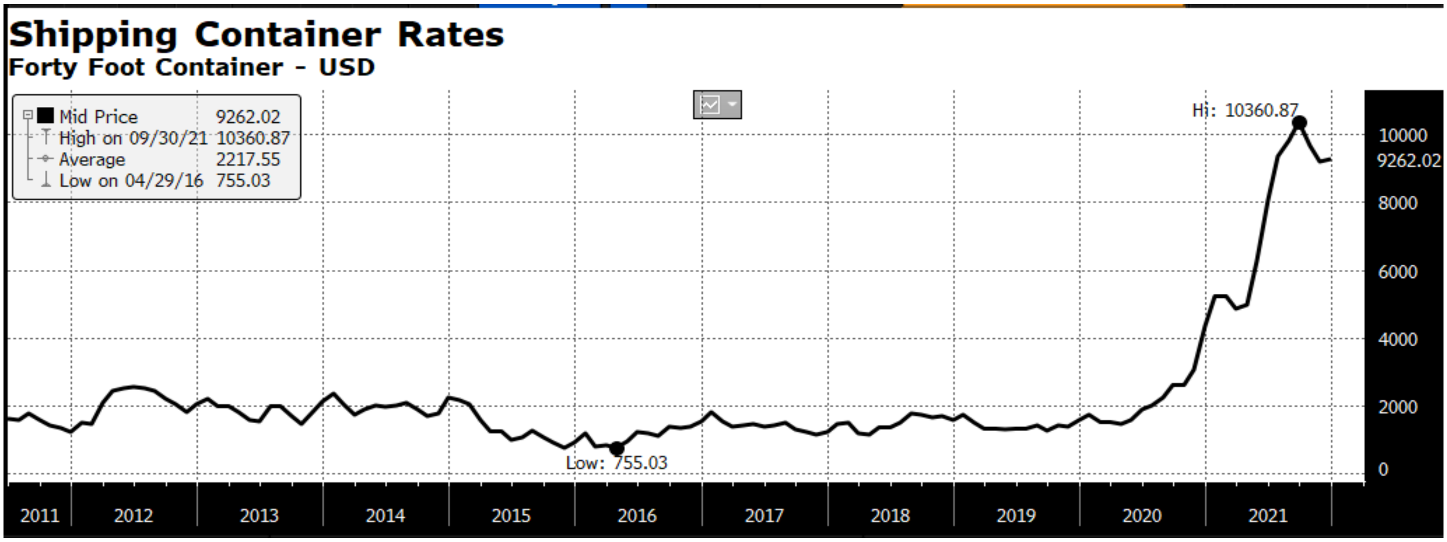
We created the Supply Chain Congestion Scale – an attempt to quantify the balance between supply chains being "Fully Bottlenecked," and "Fully Open," relative to the pre-pandemic benchmark we chose as February 3rd, 2020. Basically, how fluid is the overall transport logistics network. To determine the position of the Congestion scale (1-10) we calculate growth or decline in each category relative to pre-congestion levels, overweighting certain categories we deem most directly tied to supply chain bottlenecks (i.e., ships anchored off the ports of LA and Long Beach, shipping container and chassis street dwell times, door-to-door shipping days from China to U.S.), and scale it based on our Composite Scale.

The GS Supply Chain Congestion Scale remains at a '10' (Fully Bottlenecked). The key question remains focused on when congestion will ease in the US. This is a difficult question to answer, however, we think some combination of more labor/equipment and potentially some demand normalization (versus post-Covid frenzy to re-stock and replenish inventory) will likely be necessary to ultimately resolve these bottlenecks. While our base case for more extended supply-chain easing doesn't arise until sometime midyear 2022 (at the earliest), we do think some slight easing on the ocean side is possible as we move deeper into December 2021 and into 2022, as we approach post-peak shipping for container ships due to the length of time it takes to move from Asia to the U.S.

Shipping Container Freight Rates - World Container Index

The World Container Index assessed by Drewry reports actual spot container freight rates for major East West trade routes, consisting of 8 route-specific indices representing individual shipping routes and a composite index. All indices are reported in USD per Forty Foot Container. The composite represents a weighted average of the 8 shipping routes by volume. Shipping routes include Shanghai- Rotterdam, Rotterdam- Shanghai, Shanghai- Genoa, Shanghai- Los Angeles, Los Angeles- Shanghai, Shanghai- New York, New York- Rotterdam, Rotterdam- New York.

As of December 15, 2021 the shipping container freight rate was $9,262, below its peak level of $10,361 at the end of September, but still well-above its historical average of $2,218.

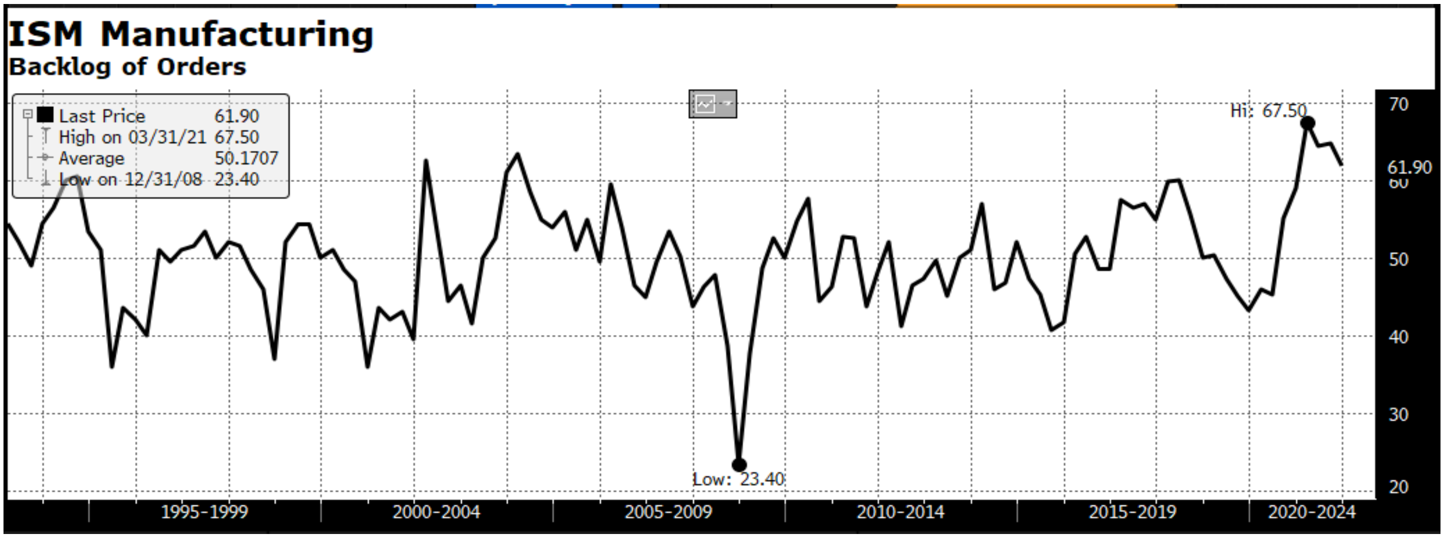


Federal Reserve Beige Book
The Beige Book summarizes anecdotal information on current economic conditions from each Federal Reserve district.

The report from November offered a mixed picture related to inflation and supply chains:
Prices rose at a moderate to robust pace, with price hikes widespread across sectors of the economy. There were wide-ranging input cost increases stemming from strong demand for raw materials, logistical challenges, and labor market tightness. But wider availability of some inputs, notably semiconductors and certain steel products, led to easing of some price pressures. The outlook for overall activity remained positive in most Districts, but some noted uncertainty about when supply chain and labor supply challenges would ease.

ISM Manufacturing Backlog of Orders
The ISM Manufacturing report is based on data compiled from purchasing and supply executives nationwide. Survey responses reflect the change, if any, in the current month compared to the previous month for New Orders, Backlog of Orders, New Export Orders, Imports, Production, Supplier Deliveries, Inventories, Customers' Inventories, Employment and Prices.

From the November 2021 ISM Manufacturing report:
ISM's Backlog of Orders Index registered 61.9 percent; a 1.7-percentage point decrease compared to the 63.6 percent reported in October. This is the 10th consecutive month with a reading above 60 percent. For November, respondents indicated that backlogs were Higher (35.2%), Same (53.3%), or Lower (11.5%). According to Timothy R. Fiore, Chair of the ISM Survey Committee, "backlogs expanded at a slower rate in November, indicating production was able to keep up with continuing strong new order levels. The U.S. manufacturing sector remains in a demand-driven, supply chain-constrained environment, with some indications of slight labor and supplier delivery improvement."



Logjams at the Ports of Los Angeles and Long Beach
The best representation of supply chain congestion are the logjams at the ports of Los Angeles and Long Beach, which handle about 40% of the United States' inbound containers. The number of ships waiting to port has dropped from its peak level in October, but predominantly due to a November 16th policy requiring ships crossing the Pacific to wait 150 miles offshore as they wait for a slot to unload. According to freight forwarder Flexport Inc., the time it takes goods originating from China to move through the Los Angeles and Long Beach ports and reach their final destination has more than doubled to 62 days since January 2020.

The Biden Administration announced a number of steps to help increase supply chain fluidity, including moving several ports to 24/7 operations and threatening to fine each container left for over 9 days. Gene Seroka, Executive Director of the Port of Los Angeles, recently stated that "I see this [congestion] going to the end of at least 2022, but we're making small, incremental gains."

Latest Inflation Readings

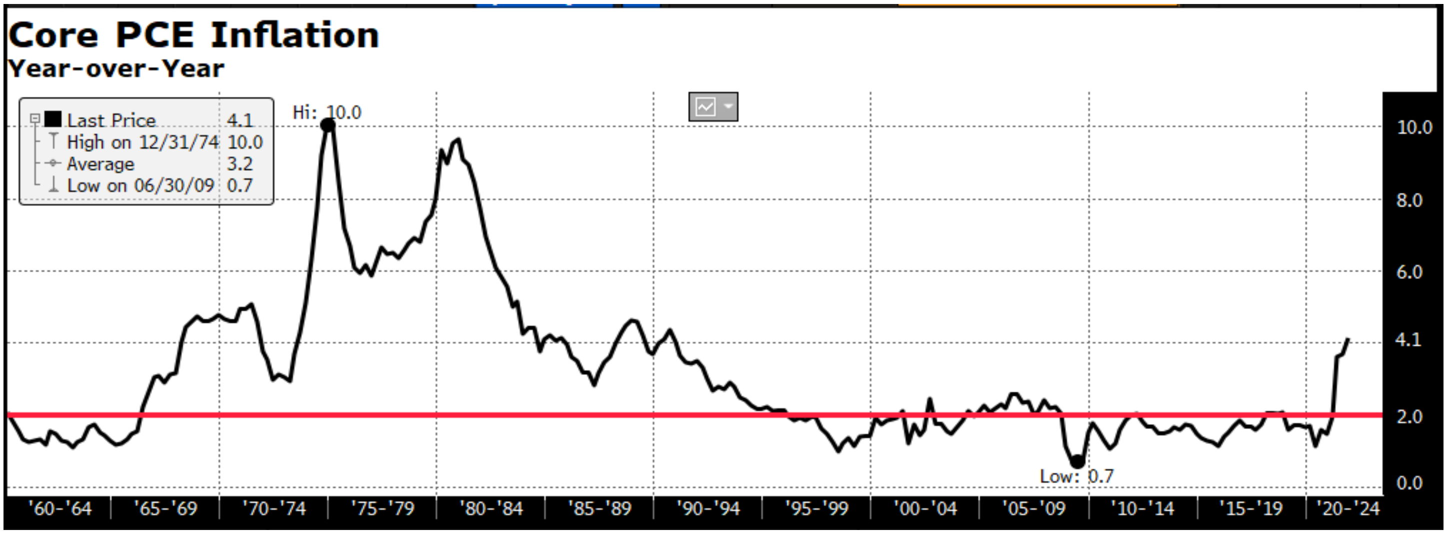
We also thought it would be helpful to review the latest inflation readings across several data points. Many current readings of inflation have reached their highest levels in decades while indicators of future inflation have showed signs of easing. We are watching these measures closely to look for signs that inflation has peaked or will be more persistent.

Core Personal Consumption Expenditure (PCE) – The Fed's Preferred Measure of Inflation

The Core Personal Consumption Expenditure (PCE) Index measures the prices paid by consumers for goods and services based on surveys of what businesses are selling. Core means that the index excludes food and energy prices, which tend to be more volatile than other categories. The Bureau of Economic Analysis calculates Core PCE data on a monthly basis as part of the Personal Income and Outlays report.

Latest Reading (October): +4.1% Y/Y.
Updated: Monthly.

Fed Target: Average 2%.
Data goes back to 1960.

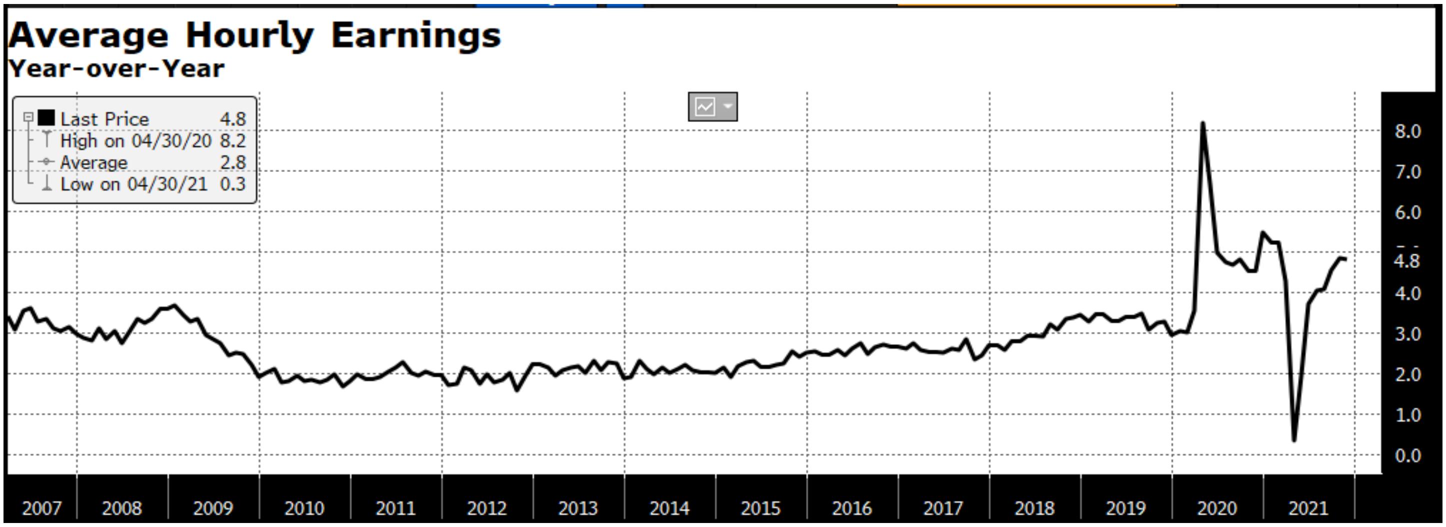


Average Hourly Earnings

The Bureau of Labor Statistics Average Hourly Earnings tracks total hourly renumeration (in cash or in kind) paid to employees in return for work done (or paid leave). Data is from the Current Employment Statistics (CES) survey.

Latest Reading (November): +4.8% Y/Y.
Updated monthly.

Historical Average: +2.8% Y/Y.
Data goes back to 2007.

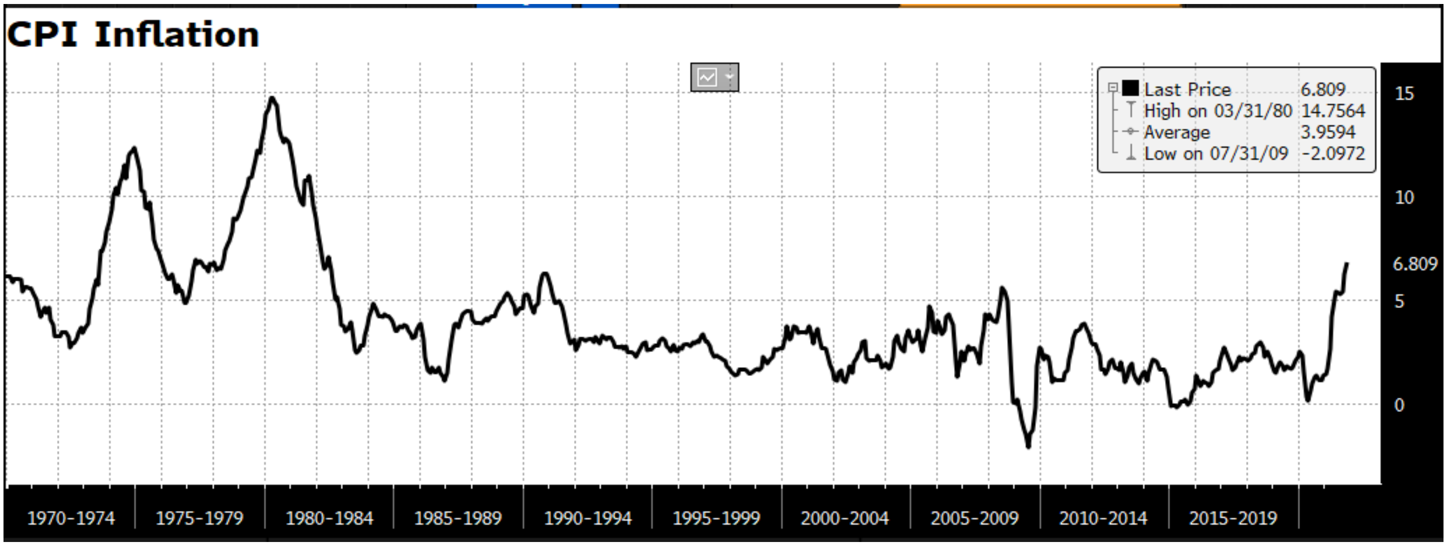


Consumer Price Index (CPI)

The Bureau of Labor Statistics Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. The index does include food and energy prices. According to the BLS, over 2 million workers are covered by collective bargaining agreements which tie wages to the CPI. The index affects the income of almost 80 million people as a result of statutory action: 47.8 million Social Security beneficiaries, about 4.1 million military and Federal Civil Service retirees and survivors, and about 22.4 million food stamp recipients.

Latest Release (November): +6.8% Y/Y.
Updated monthly.

Historical Average: +3.2% Y/Y.
Data goes back to 1914.



Core Producer Price Index (PPI)

The Bureau of Labor Statistics Producer Price Index (PPI) measures the average change in the selling prices received by domestic producers for their output. The prices included in the PPI are from the first commercial transaction for many products and some services. PPIs measure price change from the perspective of the seller. This contrasts with other measures, such as the Consumer Price Index (CPI), that measure price change from the purchaser's perspective. According to the BLS, the PPI program covers approximately 72% of the service sector's output. The core reading excludes food and energy prices.

Latest Release (November): +7.7% Y/Y.
Updated monthly.

Historical Average: +2.0% Y/Y.
Data goes back to 2010.

Inflation Forecasts

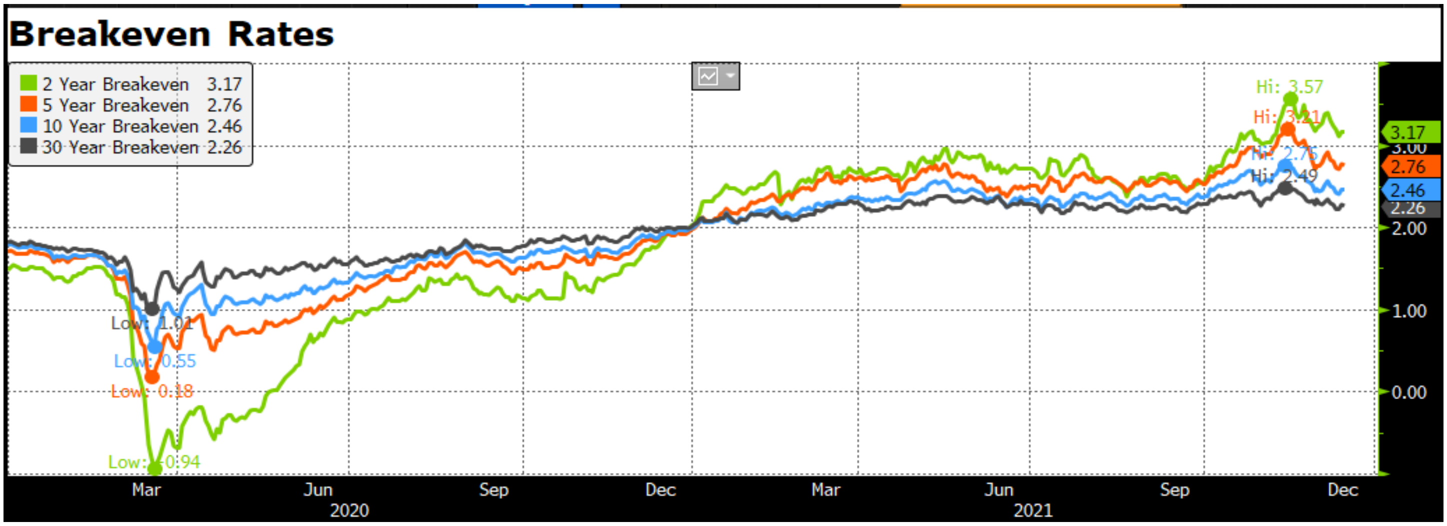
Breakeven rates show signs of inflation easing while FOMC and consensus forecasts continue to predict that inflation will decelerate in 2022 and 2023.

Breakeven Rates

Breakeven rates are the implied values of what market participants expect inflation to be over the specific period. A breakeven rate is the difference between a nominal Treasury yield and the yield for Treasury Inflation-Protected Security (TIPS) for the same maturity. Simply put, the breakeven rate is the rate that inflation would need to be at for an investor to earn the same return on a Treasury or TIPS security. Breakeven Rate = Treasury Yield – TIPS Yield.

The following chart shows the breakeven rates for four different periods starting in 2020. Breakeven rates tend to be volatile; notice how the rates collapsed and went negative during the early part of 2020.

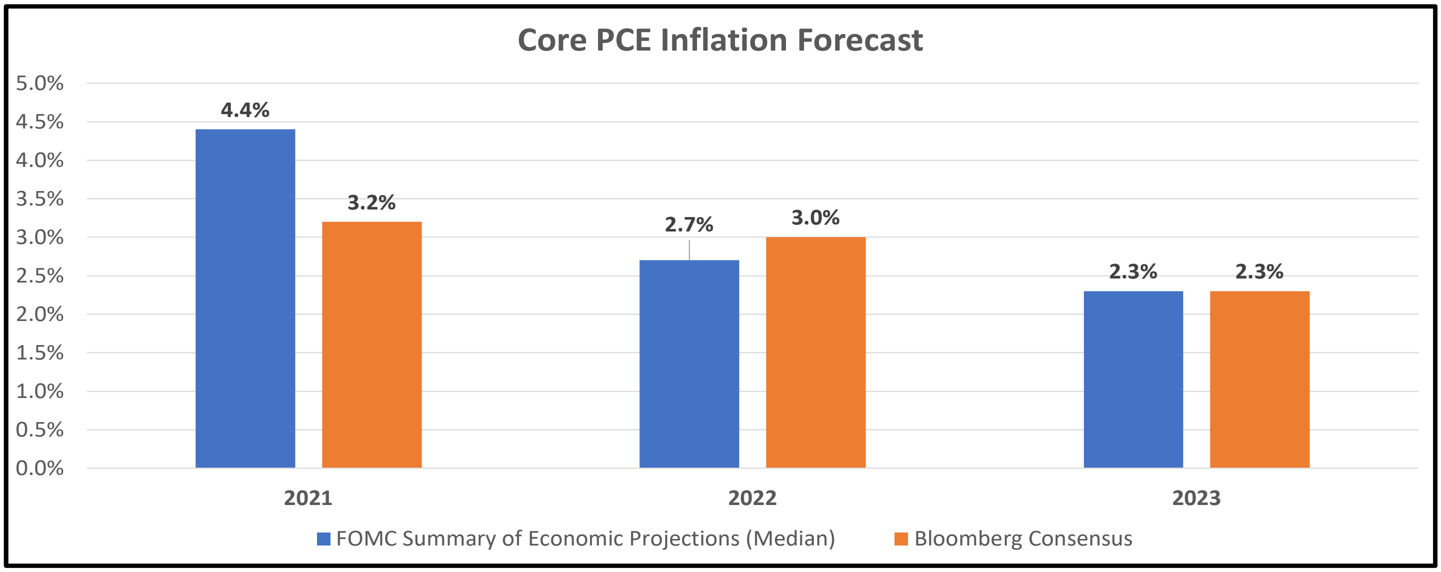
Latest Data (As of 12/15): 2-Year: 3.11%. 5-Year: 2.70%. 10-Year: 2.41%. 30-Year: 2.23%.
Updated daily. Data goes back to 1977.



FOMC Summary of Economic Projections

The FOMC Summary of Economic Projections (SEP) are collected individually and anonymously each quarter from each member of the Federal Reserve Bank presidents and Board of Governors. Projections include Real GDP, the Unemployment Rate, PCE Inflation, Core PCE Inflation, and the Federal Funds Rate. The SEP's are not meant to be a policy roadmap or committee view. Individuals do not consult with each other when filling out their projections. For Core PCE Inflation, the Fed releases the median projection.

The Bloomberg Consensus Core PCE Inflation estimate is the median forecast based on a survey of 50 economists.



DISCLOSURES:

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The economic forecasts set forth in this material may not develop as predicted and there can be no guarantee that strategies promoted will be successful.

Financial planning is a tool intended to review your current financial situation, investment objectives and goals, and suggest potential planning ideas and concepts that may be of benefit. There is no guarantee that financial planning will help you reach your goals.

Likewise, it is important to remember that no investment strategy assures success or protects against loss. Asset allocation does not ensure a profit or protect against loss. There is no guarantee that a diversified portfolio will enhance overall returns or outperform a non-diversified portfolio. Diversification does not protect against market risk. All investing involves risk which you should be prepared to bear.

Rebalancing a portfolio may cause you to incur tax liabilities and/or transaction costs and does not assure a profit or protect against a loss.