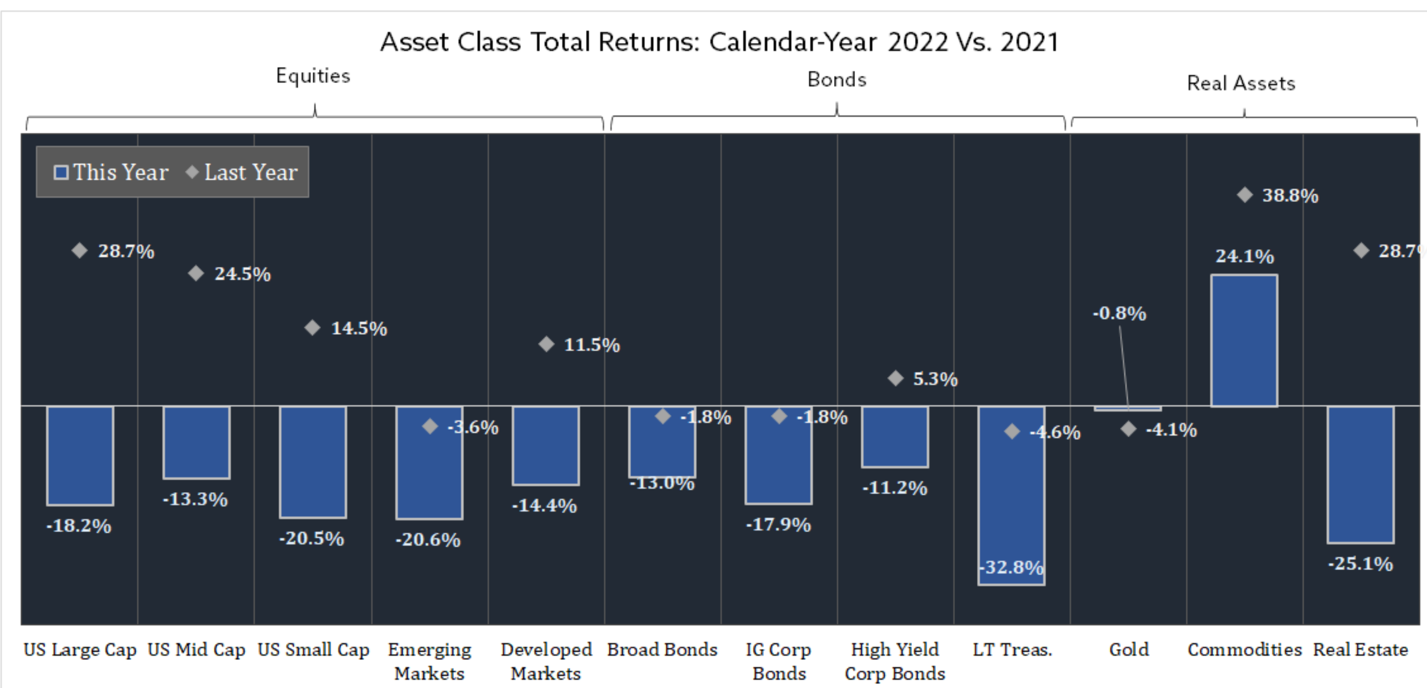
Pendleton Street Advisors
4th Quarter 2022 Investment Commentary
January 13, 2023

Index Returns	4th Quarter	Year-To-Date
S&P 500 US Large Cap Stock Index	7.6%	-18.1%
Russell 2000 Small Cap Stock Index	6.2%	-20.4%
MSCI All Country World Ex-USA Stock Index	14.3%	-16.0%
Barclays Capital US Aggregate Bond Index	1.9%	-13.0%
US Core Consumer Price Index - (Inflation)	1.0%	6.0%

Stocks left the 4th quarter better than they found it, but still ended significantly below where they started the year. Bonds followed suit, improving in price relative to the beginning of the quarter, but still posting their worst return in over 45 years. Commodities such as oil and natural gas along with the US Dollar (cash) offered some shelter to investors if they held them; but, given the underperformance of commodities in the years leading up to 2022 we suspect most investors had given up on them and were playing catch-up at best. Supply chain challenges, the Russia-Ukraine war, inflation, and interest rates are a few of the most notable factors that drove prices lower and volatility higher across asset classes.

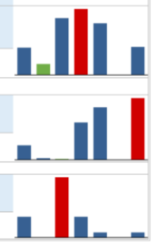
As we look ahead, the most remarkable characteristic of the current investment environment is the level of negativity in market sentiment. In contrast to the beginning of last year when supply chain driven shortages were a primary concern, **markets are entering 2023 with a shortage in practical optimism about the economy and markets. We believe this presents opportunities for data-driven investors with a long-term perspective and the willingness and ability to set aside emotions to consider the facts objectively.**



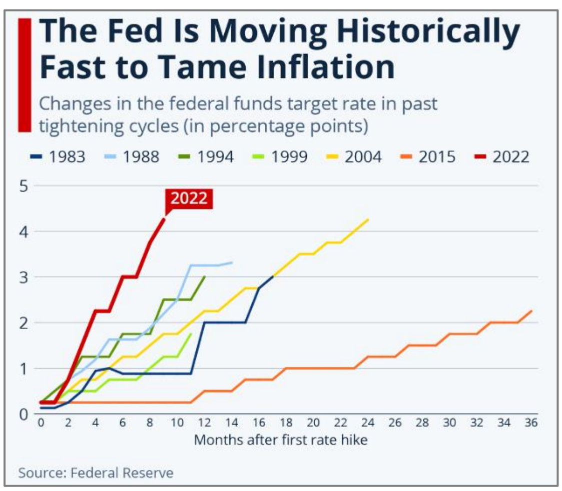
Market Drivers:

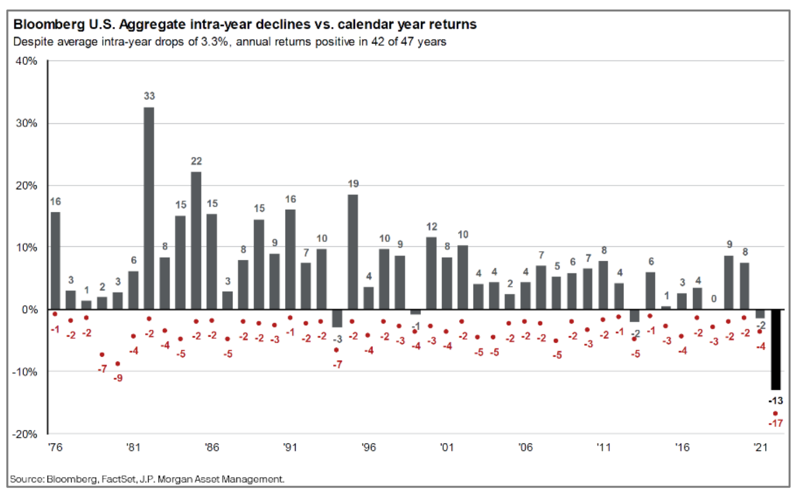
In January 2022 we outlined our view that three foundational drivers of value (inflation, interest rates, and growth) were beginning to shift in a direction that could result in a difficult environment for markets and the underlying economy. While we could not have anticipated the invasion of Ukraine by Russia, or the beginning of a rate hike cycle with unprecedented speed by the Fed, those catalysts pushed the shift in market drivers into overdrive. Even into the fourth quarter, we saw very few signs that the deterioration in economic and market conditions was slowing; but, more recently we have seen improvement in two out of three. Currently, core market drivers are sending mixed signals.

	Indicator Levels As Of...					
	5-Year Average	2020 Year-End	2021 Year-End	Q3 '22	Most-Recent	Expected in 2023
Inflation (CPI Year-Over-Year %-Change)	**3.4%**	**1.4%**	**7.0%**	**8.2%**	**6.5%**	***3.50%***
Source: Bureau of Labor Statistics		*12/31/20*	*12/31/21*	*9/30/22*	*12/31/22*	
Effective Federal Funds Rate	**1.20%**	**0.09%**	**0.07%**	**3.08%**	**4.33%**	***5.10%***
Source: Federal Reserve		*12/31/20*	*12/31/21*	*9/30/22*	*12/31/22*	
Actual Real GDP Growth (Yr-Over-Yr-%)	**1.97%**	**-1.52%**	**5.72%**	**1.94%**	**0.50%**	***0.50%***
Source: Federal Reserve		*12/31/20*	*12/31/21*	*9/30/22*	*9/21/22*	



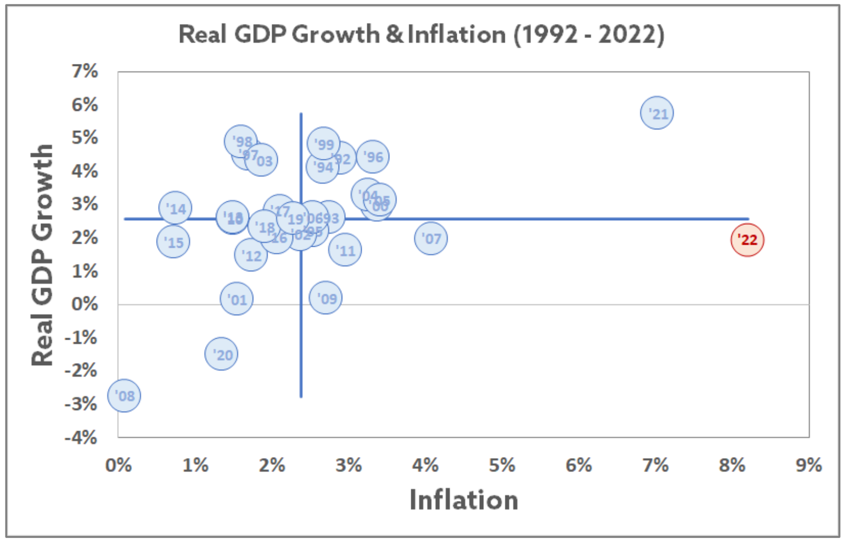
- **Inflation** appears to have peaked in June, 2022 at a little over 9%, and has since declined to 6.45% as of December. This level of inflation is still above the long-term average of 3.27% and the Fed's inflation target of around 2%. But, the gradual decline tells markets and - more importantly, right now - policy makers that prices for consumer goods and services are moving in the right direction. **We see the continuation of moderately declining inflation as a positive influence on the markets going forward.**
- **Interest rates** The Federal Funds Rate, the Fed's primary interest rate policy tool, has increased approximately 4.26% in the span of six months; from 0.07% to 4.33%. An increase in the Federal Funds Rate typically results in a similar rise in interest rates across the economy: from corporate bond yields to mortgage rates. The most direct impact for investors has been the reduction in bond prices, which drove returns on bonds in aggregate down by more than any other year beginning in 1976 (*see accompanying chart*).





The latest Summary Economic Projection – *a survey of the Federal Open Market Committee members* – from December suggests that the Fed will raise the Fed Funds Rate to 5.1% by the end of 2023. But, as we've seen from 2022 it is not only the magnitude of rate increases that matters, but also the speed. Some, but not all, committee members have suggested that rate hikes will be slower this year - 0.25% as opposed to three 0.75% increases and one 0.5% increase in 2022. **We see the committee's level of uncertainty regarding magnitude and pace of hikes going forward as a strong driver of continued market volatility.**

- **Economic growth** is expected to approach 0.5% by year-end, as measured by US Real GDP - down from 1.9% in the third quarter and down from the 30-year average of 2.56%. **We see expectations for an economic slowdown that potentially becomes another recession as another primary driver of continued market volatility.**



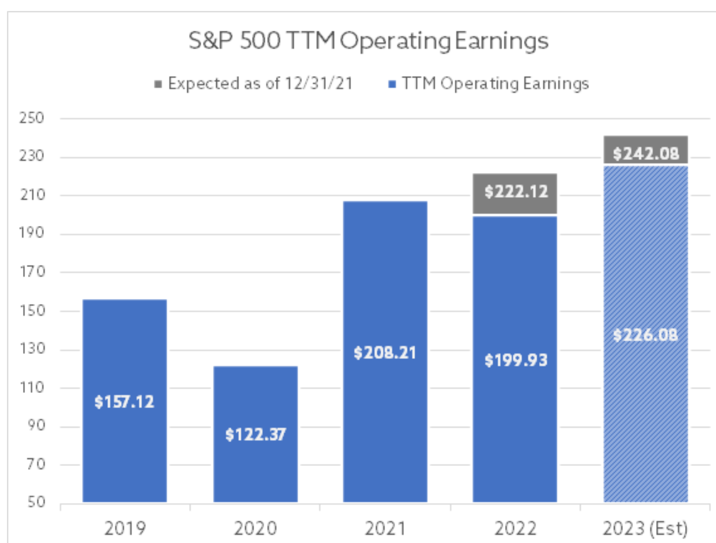
In line with the market drivers discussed above, we see markets homing in on two primary issues in the coming months:

1. Will the economic slow-down become an earnings recession?
2. Will the Fed cause a recession by continuing to raise interest rates beyond what is helpful to bring down inflation?

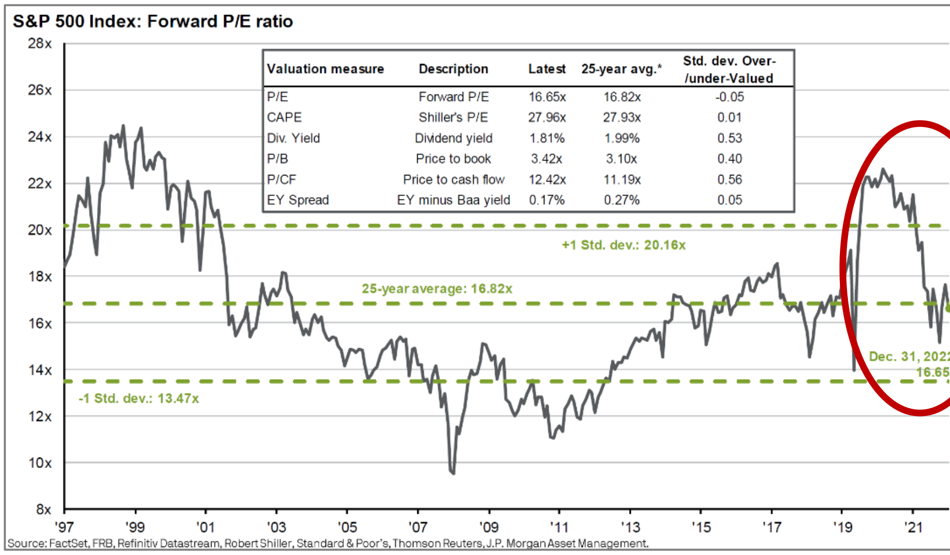
While opinions abound regarding the answers to these questions, we are most concerned with why they matter to investors, and how we can manage those risks in client portfolios.

Regarding question 1, above: An earnings recession (or fear of one) causes investors to reassess companies' ability to generate cash flow at levels justified by current prices. If earnings/cash flows are expected to decline significantly, then the values of the stocks or bonds of companies generating that cash flow are reduced. While earnings are expected to have declined by 4% in 2022 vs 2021 (assuming companies meet analyst estimates for Q4 '22 earnings), companies that make up the S&P 500 are expected to increase earnings in aggregate by 13.1% in 2023 vs 2022.

We take analyst estimates with a grain of salt, and were highly concerned initially that they may have failed to capture the change in the economic environment and monetary policy since 2021. But, since December, 2021 analysts have reduced their earnings estimates from $242 down to $226. While only a 6.6% reduction in estimates for 2023 through year-end, the level of earnings growth expected from S&P 500 companies does not reflect the heightened fear and consternation in markets. One of those groups – markets or analysts – is closer to the truth. We believe that many high quality companies with proven track records of navigating downturns will prove that markets are further off the mark by year-end.



Regarding question 2: Higher interest rates usually drive US Treasury bond yields higher, meaning that the cash flows of riskier securities such as stocks are discounted at a higher rate because investors could obtain a higher return with less risk by owning the Treasury bond. We believe this risk has been largely priced into equity markets at this point, evidenced by an approximately 25% decrease in the S&P Price-to-Earnings Ratio since late 2020.



Portfolios: We have been focused since early in 2022 on reducing risk in portfolios by selectively selling positions and retaining cash, while also recognizing that markets will move past these current challenges at some point… ***and that historically that point has come unannounced and before it was widely expected***. Despite taking measures such as raising cash levels beginning early in the year and reallocating a significant portion of fixed income allocations to less interest-rate sensitive floating rate bonds, diversified client portfolios were not immune from market forces. A healthy allocation to Energy sector equities heading into the year provided some relief, but not enough to fully offset broadly declining prices in equities and bonds to the extent we would have liked. We have been searching for high-quality assets at low-quality prices, and we have been finding those with more frequency than we have in the prior 3-5 years (*excluding the onset of COVID in Q2 of 2020*).

Midway through the 4th quarter, we began reinvesting excess cash by initiating positions in Alphabet (GOOGL) and Pfizer (PFE), which we believe have been discounted too far given their underlying fundamental strength. So far, they too have been subject to the market's tantrums, but **we believe those and other holdings will deliver significant value in client portfolios over time as they continue to do what they do best (*generate and grow cash flow*) regardless of the market's mood swings.** There will be more opportunities for us to redeploy cash going forward, as markets for both stocks and bonds continue to see-saw in anticipation of the Fed's next moves and changes in the economic picture as they unfold. **We are ready**.

Our firm values frequent communication with you to discuss changing conditions and to ensure that we understand and stay updated on your objectives. We appreciate your patience and we do not take your choice to be a client of the firm lightly. Our client-service staff will be reaching out to you as usual to schedule a meeting. If you would like to set up a meeting sooner, please contact us at your convenience. We look forward to hearing from you.

Contact:
Matt Morley, CIO
Pendleton Street Advisors, LLC
Website: www.pstadvisors.com