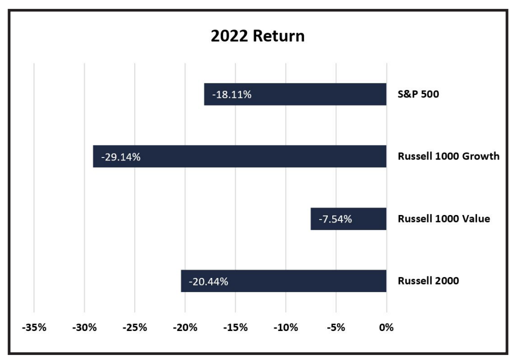
MARKET UPDATE

Economic Market Update – 2022 REVIEW

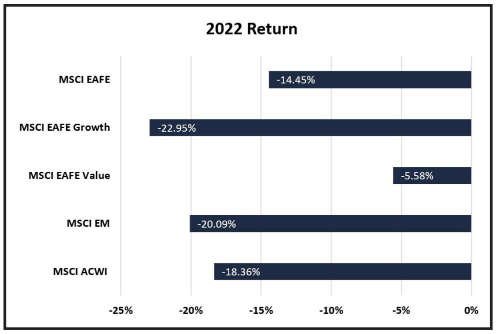
JANUARY, 2023

Ugly. In a word, that sums up markets for 2022. Investors had few places to hide as market carnage took root across a broad spectrum of asset classes. The S&P 500 experienced its high for the year on the first day of trading, and it was all downhill from there. February saw the outbreak of the first major ground war in Europe since World War II as Russia invaded Ukraine, rankling energy markets and adding more fuel to an inflation inferno that was already burning hot due to pandemic-induced supply shortages. In the face of 40-year highs in inflation, the Federal Reserve increased interest rates at the fastest pace in history. These actions, in turn, led to a bear market in stocks, as high-flying tech firms, which derive most of their value from cash flows far into the future, plunged as those future cash flows were now far less valuable in the present. Long-term U.S. Treasury bonds, historically the best safe havens in times of stock market turmoil, fell even more than the stock market, taking the hardest hit amidst a historic bond market sell-off. Cryptocurrencies, which had skyrocketed during a speculative mania that was, at least, in part, driven by historically low interest rates, came crashing back to Earth. Even the Swiss Franc and gold, two other tried-and-true safe havens during bouts of market turmoil, posted negative returns. The 60/40 portfolio, an often-referenced industry standard, experienced the worst return in a calendar year in nearly 100 years. **In short, 2022 was the year of the "bear market in everything."**

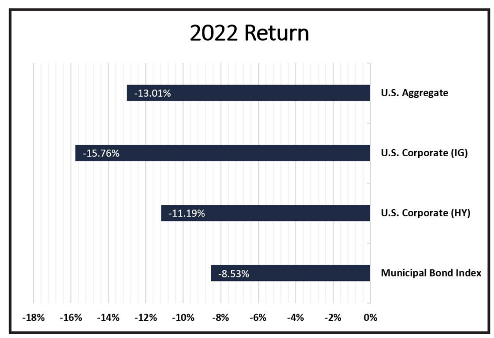


A sea of red. That's all one sees when looking at a cross-section of stock market returns for 2022. The bellwether for U.S. stock returns, the S&P 500, finished the year down -18.11% , the worst annual return since the Great Financial Crisis in 2008. Small cap stocks were hit even harder, with the Russell 2000 down -20.44% in 2022. U.S. equity performance varied widely by style, however, with value investing returning with a vengeance after years of lagging far behind growth. While still posting negative returns for the year, value stocks offered a relative haven from the carnage, with the S&P 500 Value Index falling only -5.22% in 2022. Growth stocks, led by significant declines in the tech sector, gave back much of the increase experienced during the post-COVID rally, with the S&P 500 Growth Index dropping -29.41% on the year. Looking at the Russell 1000 style indices, which have a longer history than the S&P family, the only calendar year in the past 43 years in which value outperformed growth by a larger margin was 2000, when the tech bubble popped. Performance also varied widely across sectors and industries. Energy was the only S&P 500 sector to finish the year in the green, benefiting from the disruptions to energy markets largely caused by the Russian invasion of Ukraine. After years of lagging performance, the sector ended 2022 up an eye-popping 59.04%, the best year for the sector since 1980. Communication Services, Consumer Discretionary, and Information Technology were the laggards in 2022, as rising interest rates reduced the present value of cash flows expected to be earned far into the future, and high levels of inflation reduced consumers' discretionary spending. The Communication Services sector – which includes Google parent Alphabet, Facebook parent Meta Platforms, and streaming giant Netflix – was hit particularly hard, ending the year down -40.42%.

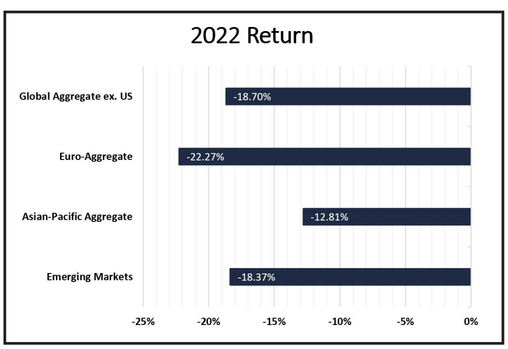
One oddity about volatility in U.S. markets during 2022 bears mentioning: Unlike most historical bear markets, the VIX did ***not*** spike. Volatility showed up in other ways, however. Rather than crash, markets experienced significant declines followed by failed rallies. The S&P 500 saw eight corrections of 5% or more over the course of the year (vs. 3.4 on average), and tied with 1974 and 2020 for the second-most in the post-WWII era, after 2008. The index experienced three 10% corrections over the course of the year, tying 2008, 2002, and 1987 for the record.



International markets fared slightly better. Globally, we saw the fastest-growing inflation since 1981, and virtually no country was spared; even Japan, which had been mired for decades with ultra-low inflation, saw prices shoot up 3.8% in 2022. In the face of this hot, inflationary environment, central banks around the world were forced to tighten monetary policy, driving down asset returns. The MSCI EAFE Index, which tracks developed international markets, finished the year down -14.45% . Driven by weakness in China, which continued to follow a zero-COVID policy for much of the year, emerging markets fell even further, down -20.09% for the year. The MSCI All Country World Index, which tracks the global stock market, finished the year down -18.36%.



A historically poor year in fixed income, which typically acts as a ballast for portfolios during equity bear markets, meant that there was no shelter from the storm in 2022. The inflation surge was a global phenomenon, and central bankers around the world responded by ratcheting up interest rates, forcing bond prices down. The Bloomberg U.S. Aggregate Bond Index, a broad measure of the performance of investment-grade fixed income markets in the U.S., lost -13.01% on the year, marking the first calendar year since 1969 that both stocks and bonds finished in the red, and the only time in history that both were down more than 10%. Since 1926, the only other year that both markets declined significantly was 1931, amid the Great Depression and the shock of the U.K. abandoning the gold standard. Long bonds, the assets that historically have provided the best hedge during equity drawdowns, were hit especially hard, with the Bloomberg U.S. Treasury 20+ Year Index falling -31.09% , nearly double the decline in the S&P 500. In the face of a strong U.S. dollar, international fixed income returns were even weaker, with the Bloomberg Global Aggregate Bond Index down -16.25% on the year. There were a few relative bright spots in floating-rate and short-term asset-backed securities, which were areas we tactically overweighted over the course of 2022. Floating-rate securities were the lone major fixed income class to post positive returns on the year, and short-duration ABS posted only a slightly negative return. International fixed income returns were even worse. Japanese bonds were down -16.2%, European bonds lost more than -22%, and U.K bonds fell nearly -32% – all record losses. The rapid increase in rates also meant that cash was no longer trash after over a decade of near-zero



interest rates. T-bills returned more than 2% for only the second time since 2007, and outperformed longer-dated bonds by a record 15.1%. No matter where you look, returns were historically anomalous in 2022.

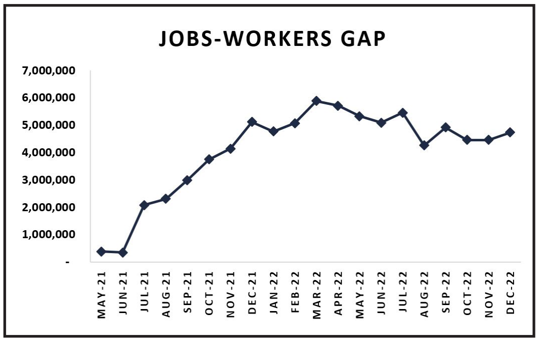
This highly abnormal return environment – in which we experienced a "bear market in everything" – resulted in a historically poor return for investors across all levels of the risk spectrum last year. 2022 marked the third-worst year on record for the 60/40 portfolio since 1926, with the mixture of stocks and bonds ending the year down -16.07% . Only 1931 and 1937 saw the 60/40 portfolio decline further. A possible silver lining? 1938 saw one of the best years on record for the 60/40 portfolio. The Federal Reserve has signaled that bond investors should see some relief in 2023 as it slows down both the pace and the magnitude of rate increases, and yield has finally returned, which will help to offset some of the expected price volatility in the fixed income market. On the equity side, recent weakness may actually offer some glimmer of hope. The end of 2022 did not bring with it a "Santa Claus" rally, with the S&P 500 falling -5.7% in the month of December. Except during the Great Depression, only two Decembers had worse performances – December 2002 (-6.0%) and December 2018 (-9.2%). While it is difficult to forecast what 2023 may bring, given the historically high level of uncertainty we now face on numerous fronts, the S&P 500 returned 26.4% in 2003 and 28.9% in 2019, after ending the previous years with historically weak Decembers.

The Most Forecasted Recession in History?

Most prognosticators are calling for a recession in the months ahead, and the path of inflation and rates in 2023 will remain the key variables to watch. Federal Reserve rate hiking cycles have historically ended in a hard landing, with the Fed overtightening and pushing the economy into recession. The renowned late MIT economist Rudiger Dornbusch famously quipped that U.S. economic expansions don't die in bed of old age, but rather, that "every one was murdered by the Federal Reserve." The recessions experienced in 2000 and 2008 were largely driven by the popping of asset bubbles, not Fed tightening, and the 2020 recession was driven by the exogenous shock of a pandemic that was out of the Fed's control. However, a survey of U.S. economic cycles in the post-WWII era shows that most expansions were indeed done in by the Fed – and the Fed is currently raising rates at the fastest clip in history. With that backdrop, the Wall Street consensus currently sees a 65% chance that the U.S. economy will fall into recession at some point during 2023. The good news? This recession would be the most well-telegraphed one in history, and households and firms are already prepping for what could lie ahead. The path exists, however, for the Fed to thread the needle. Given the recovery in supply chains and nascent deflation starting to pop up in the goods sector, the Fed may be able to engineer a soft landing – meaning that they may be able to rein in inflation without tipping the economy into recession – a task that has been historically challenging. To do so, the Fed will need to see the labor market return to balance in order to dampen wage pressure and ultimately tame inflation.

The path to a soft landing is available because the current state of the labor market is unusual, with available jobs vastly exceeding the number of unemployed workers able to fill them. The path looks something like this:

- **The impact of rate hikes slows economic growth, keeping it positive, but below trend, which leads to ...**
- **A decline in the jobs-workers gap, which leads to ...**
- **A slowdown in wage growth, which leads to ...**
- **A decline in core inflation.**



The most recent labor market report indicates that the Fed is making significant progress on this front. A key metric to watch will be the jobs-workers gap (the ratio of available jobs to the number of unemployed workers able to fill them). The jobs-workers gap shrank substantially in the back half of 2022, but still exceeds the pre-pandemic gap by about 3 million. The path to a soft landing relies on the fact that, thus far, the decline is being driven by a largely harmless decline in job openings, without any increase in the unemployment rate. Job losses cause real economic damage, but the elimination of a potential job (that ultimately never was) causes little to no damage. If the Fed can gradually continue to make progress in reducing the number of open jobs and avoid a wage-price spiral, a soft landing is possible – though even then, the landing is likely to be a little bumpy.

The most recent inflation reports suggest the Fed is making gradual progress. From early 2021 until late last year, the three-month annualized core inflation rate, which captures the underlying trend, averaged over 6%. The last three months of 2022, however, showed a sharp drop in this measure of inflation to 3.1%, meaning that the underlying trend is starting to approach the Fed's target of 2%. Stripping out food, energy, and shelter prices, the figure actually turns negative, with an annualized decline in prices of -0.9% in Q4. The most recent reports indicate that, while the Fed still has work to do, it is on the right path. It now must just avoid overdoing it.

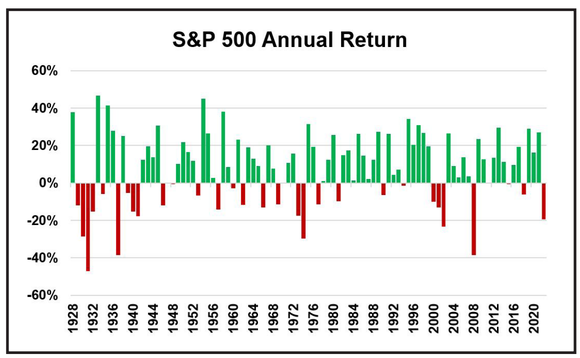
The Most Forecasted Recession in History?

Given the high degree of uncertainty in the current environment, a slightly more defensive tilt in portfolios remains warranted. Regardless of whether the economy falls into recession or not, we expect margins to decline from current record-high levels. The stock market decline in 2022 was driven by multiple compressions; volatility in 2023 will likely be driven by the uncertain path of earnings going forward, with rising borrowing costs also likely to crimp profitability. Such an environment increases the value of earnings safety (i.e., firms with stable earnings history relative to those with highly variable earnings patterns). Such an environment argues for a tilt toward firms with stable growth, which are frequently found in the Consumer Staples, Utilities, and Health Care sectors. Health Care in particular provides a margin of safety for investors, with the sector's earnings continuing to grow in each of the last several recessions.

The forward prospects for the 60/40 portfolio have improved from one year ago, following one of the worst years for the performance of stocks and bonds on record. Higher yields after the fastest Fed hiking cycle in history are of particular importance because they have repositioned bonds back to their traditional role in a portfolio, as a hedge on equity market volatility – a relationship that broke down in 2022. Current market risks are anchored around inflation; the fear is either that the Fed will keep hiking and ultimately put the economy into recession, or it will leave the job only half-done, as in the 1970s. Investors are now faced with somewhat of a dilemma, however. The Fed has signaled that the end of the hiking cycle is likely to occur sometime in 2023, and historically, the end of central bank tightening has been positive for risk assets like equities and credit. But market prognosticators are also calling for an economic downturn, which has historically been bad for these same risk assets. These predictions have created a tension that, at some point, must resolve itself. The resolution will largely determine how bad the slowdown/downturn is.

Some historical examples may provide some clarity. 1994 brought high inflation, a sharp rise in the Federal Funds rate, and increasing strain on the financial system as the Fed attempted to cool down a hot economy. As the Fed stopped hiking, however, economic growth slowed down substantially, and we experienced a deterioration in PMIs similar to the current environment, but the U.S. economy avoided falling into a recession, and returns for both stocks and bonds were strong in 1995. 2000 presents the opposite case. The Fed stopped hiking at the end of the year, but the economy fell into recession in early 2001, and returns were abysmal. In order to determine which way markets will go in 2023, we need visibility into both the evolution of Fed policy and the extent of the economic slowdown currently underway. We argue that assets can be separated into two categories: those that are worried about a policy overshoot alone (the Fed murdering the expansion), like investment-grade bonds, and those that are worried about a policy overshoot, but also highly sensitive to deteriorating growth and earnings, like stocks and high yield credit. We are likely to have more visibility into Fed policy in the early months of 2023 than the extent of the economic slowdown, which calls for a tilt toward assets that fall into category 1 above. Looking at the historical data, the tension between the end of a hiking cycle and a slowdown in growth has far less impact on investment-grade bonds than on riskier assets, like stocks and high yield bonds. We don't yet know whether 2023 will look like 1995 or like 2001; tilting toward investment-grade bonds, which did well in both years, puts the odds in our favor. Our base case is that the bear market low is likely to occur at some point during the first half of 2023, once the extent of the slowdown in growth and the expected hit to earnings is apparent, and the Fed has weakly signaled that it is likely to pause rate hikes. The downside risk is that the U.S. will indeed fall into recession, as will Europe, which could also be exacerbated by China emerging from zero-COVID more cautiously than is currently anticipated. This downside could also be exacerbated by the quantitative tightening currently underway, which drains liquidity from the system. Should this occur, stocks likely will have further to fall, and fixed income returns will remain muted, absent a significant reversal in global monetary policy. The bull case? The Fed sticks the landing, inflation declines rapidly without the need for significant economic pain, and earnings continue to grow, making 2023 a repeat of 1995.

Ending on a sanguine note, looking at the history of the S&P 500 since 1928, experiencing two consecutive years of negative stock market returns has been rare, only occurring nine times. Furthermore, most of those years were clustered together during the tumultuous period of the Great Depression through World War II. In the post-war period, the S&P 500 has only posted periods of consecutive negative annual returns twice: once in the stagflationary environment of 1973-1974, and once more with the popping of the tech bubble and shock from 9/11 from 2000 to 2002.



We remain committed to focusing on your long-term financial goals and priorities, and constructing portfolios designed to reach those goals while minimizing risk. The volatility environment experienced over the past several years demonstrates the value of disciplined professional management. Our clients' interests always come first, and our goal for 2023 is to continue to separate the signal from the noise and focus on what truly matters to the economy and markets, to help you achieve your investment goals. As we begin the new year, we wish you and your family a healthy and prosperous 2023.

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